

COLLECTIVE EMOTIONS

Edited by

CHRISTIAN VON SCHEVE AND MIKKO SALMELA

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Collective Emotions

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Collective Emotions

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Edited by

Christian von Scheve

and

Mikko Salmela

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List of contributors

Nyla R. Branscombe

Department of Psychology, University of Kansas, Lawrence, KS, USA

Tobias Brosch

Department of Psychology and Swiss Center for Affective Sciences, University of Geneva, Switzerland

Martin Bruder

Department of Psychology/Zukunftscolleg, University of Konstanz, Germany

Megan Carpenter

University of Hawai'i Manoa, Honolulu, HI, USA

Randall Collins

Sociology Department, University of Pennsylvania, Philadelphia, PA, USA

Joseph de Rivera

Department of Psychology, Clark University, Worcester, MA, USA

Mark A. Ferguson

Department of Psychology, University of Wisconsin-Stevens Point, WI, USA

Agneta Fischer

Department of Psychology, University of Amsterdam, The Netherlands

Antonios Garas

ETH Zürich, Switzerland

David Garcia

ETH Zürich, Switzerland

Margaret Gilbert

Department of Philosophy, University of California, Irvine, CA, USA

Eran Halperin

The New School of Psychology, Interdisciplinary Center (IDC) Herzliya, Israel

Elaine Hatfield

University of Hawai'i Manoa, Honolulu, HI, USA

Bennett W. Helm

Franklin & Marshall College, Lancaster, PA, USA

Regine Herbrik

Leuphana University Lüneburg, Germany

Ursula Hess

Department of Psychology, Humboldt University of Berlin, Germany

Stephanie Houde

University of Quebec at Montreal, Canada

Nicole E. Iannone

Purdue University, West Lafayette, IN, USA

James M. Jasper

Department of Sociology, CUNY Graduate Center, City University of New York, New York, NY, USA

Arvid Kappas

School of Humanities and Social Sciences, Jacobs University Bremen, Germany

- Janice R. Kelly**
Purdue University, West Lafayette,
IN, USA
- Funda Kivran-Swaine**
Rutgers University, New Brunswick,
NJ, USA
- Hubert Knoblauch**
Department of Sociology, Technische
Universität Berlin, Germany
- J. David Knottnerus**
Department of Sociology, Oklahoma State
University, Stillwater, OK, USA
- Joel Krueger**
University of Exeter, UK
- Claus Lamm**
Social, Cognitive and Affective
Neuroscience Unit, Faculty of Psychology,
University of Vienna, Austria
- Edward J. Lawler**
Cornell University, Ithaca, NY, USA
- Diane M. Mackie**
University of California, Santa Barbara,
CA, USA
- Antony S. R. Manstead**
School of Psychology, Cardiff
University, UK
- Megan K. McCarty**
Purdue University, West Lafayette,
IN, USA
- Mor Naaman**
Cornell University—NYC Tech,
New York, NY, USA
- Dario Páez**
University of the Basque Country, Spain
- Brian Parkinson**
University of Oxford, UK
- John Protevi**
Louisiana State University, Baton Rouge,
LA, USA
- Stefan Rank**
Austrian Research Institute for Artificial
Intelligence (OFAI), Vienna, Austria
- Richard L. Rapson**
University of Hawai'i Manoa, Honolulu,
HI, USA
- Devin G. Ray**
University of Aberdeen, UK
- Bernard Rimé**
Université de Louvain, Belgium
- Mikko Salmela**
Helsinki Collegium for Advanced Studies,
University of Helsinki, Finland
- Hans Bernhard Schmid**
University of Vienna, Austria
- Frank Schweitzer**
ETH Zürich, Switzerland
- Giorgia Silani**
Collective Emotions and Social
Cognitive Neuroscience Laboratory,
International School for Advanced Studies
(SISSA-ISAS), Trieste, Italy
- Marcin Skowron**
Austrian Research Institute for Artificial
Intelligence (OFAI), Vienna, Austria
- Jan Slaby**
Department of Philosophy, Freie
Universität Berlin, Germany
- Eliot R. Smith**
Indiana University, Bloomington
IN, USA

Gavin Brent Sullivan

School of Social, Psychological and
Communication Sciences, Leeds
Metropolitan University, UK

Mike Thelwall

Statistical Cybermetrics Research Group,
School of Technology, University of
Wolverhampton, UK

Shane R. Thye

University of South Carolina, Columbia,
SC, USA

Ilmo van der Löwe

University of Oxford, UK

Christian von Scheve

Department of Sociology, Freie Universität
Berlin, Germany

Jeongkoo Yoon

Ewha Womans University, Seoul,
South Korea

Collective emotions: An introduction

Christian von Scheve^a and Mikko Salmela^b

^aFreie Universität Berlin and ^bHelsinki Collegium for Advanced Studies

When in 2011, thousands of Egyptians gathered on Tahrir Square in the heart of Cairo, they collectively expressed their anger, frustration, and contempt for Hosni Mubarak's political regime. They did so by shouting, chanting, and gesturing which provided a sense of unity and determination beyond the protesters' shared concerns about the future of Egyptian society. Collective emotions were part and parcel of these regular gatherings and ritualized activities. They were evident in the facial expressions, gestures, and written slogans of protesting citizens, they were documented and disseminated via broadcast media to millions of fellow Egyptians and an international audience not physically present on Tahrir Square, and they were rapidly orchestrated and reverberated through social media channels, in words and vivid images.

In 2006, during the FIFA World Cup in Germany, hundreds of thousands of football fans gathered at Berlin's "Fanmeile," the capital's largest public screening site near the Brandenburger Tor to watch the matches of the tournament on giant video walls. As many as 750,000 participants collectively cheered and rejoiced when their supported team scored, were captured by ineffable tension when a game was at a tipping point, or found themselves in awkward disappointment and sadness when the match was lost for their team. Well beyond the crowds at public screening events, commentators, both domestic and international, diagnosed a transformation of German society through its hosting of the World Cup. Germany was said to have regained confidence, patriotism, and even national pride, as expressed, for example, through the massive display of German flags throughout the tournament. Although the pros and cons were heavily debated, this development was widely seen as promoting a "positive" image of Germany in the world—something that was hitherto unthinkable due to German history.

When Anders Breivik killed 77 people in July 2011, most of them teenagers at a summer camp on the Norwegian island of Utoya, he pushed Norway into a stasis of grief, sadness, and desperation that lasted for weeks, if not months. Although Breivik's killings on the island had only been witnessed by a tiny fraction of the Norwegian population—the survivors and some police—the incident became known to almost every Norwegian and the rest of the world within hours after it happened via broadcast and social media. Sadness and desperation were not only experienced by those who had lost friends and family on Utoya, but also by people to whom the victims were unbeknownst in personal terms. On the one hand, Breivik's killing spree was interpreted as an attack on Norway and its values and political institutions. It thus tended to affect anyone with allegiances to Norway and

Norwegian culture. On the other hand, it was framed as an attack on humanity that violated deeply held beliefs and convictions widely shared across the globe.

These examples are but the most drastic and vivid instances of collective emotions in contemporary social life. They portray the many ways through which emotions can arise collectively and are shared by large numbers of individuals at the same time. As these examples show, crowds and gatherings, although most commonly associated with collective emotions, are only one site at which the collective properties of emotions can be identified. Equally important, socially shared beliefs and values, allegiances to groups of various kinds and size, media and communication, political strategies and discourse, as well as social and cultural practices all contribute to understanding emotions in collective terms.

For centuries, researchers and theorists in the social and behavioral sciences as well as in the humanities had a keen interest in collective emotions. The psychology and sociology of crowds and masses, in particular, assigned an important role to emotions in understanding crowd behavior (see, for example, Reicher, 2001). Gustave Le Bon (1895), and later William McDougall (1920), argued that the rapid and non-conscious spreading of emotions in crowds would undermine individual rational thought and automatically align the behaviors of individuals gathered in crowds. Le Bon thought that emotions and behaviors in crowds are *contagious*—much like a disease, largely irrespective of individual social or psychological characteristics—and constitutive of an inherently irrational group mind that emerges in a crowd. In a somewhat different way, Gabriel Tarde (1890) had theorized *imitation* to be at the core of collective emotional processes arising in groups. Interestingly, he had also distinguished between “the crowd” and “the public,” ascribing to the latter some “shared ideas” as emotive cores to collective experience that are disseminated by modern technologies (i.e., newspapers, at Tarde’s time) (see McPhail, 1991).

Likewise, other thinkers—first and foremost Émile Durkheim (1912/1995)—pointed out the importance of the social sharing of certain beliefs and attitudes in the emergence of collective emotions and behaviors. Durkheim, who in contrast to Tarde advocated a much more “holistic” understanding of social phenomena, contributed to shifting the view of collective emotions as arising from spontaneous crowds and anonymous masses to emerging within groups and societies and their normative and symbolic orders. He looked at the development of *collective effervescence* in group rituals, the term referring to “a sort of electricity [that] is generated from their [participants’] closeness and quickly launches them to an extraordinary height of exaltation. Every emotion expressed resonates without interference in consciousnesses that are wide open to external impressions; each one echoing the others” (Durkheim, 1912/1995, p. 217f). Importantly, Durkheim was also one of the first scholars to emphasize the positive social functions of emotions that become particularly evident in rituals. In his view, collective emotions imbue a community’s socially shared beliefs and values with affective meanings, thus making these values salient in everyday, mundane interaction, well beyond the immediate ritual context.

Durkheim’s works therefore do some justice to the critique that had been presented against Le Bon’s de-contextualized view of crowds that neglected critical cultural issues (see McPhail, 1991) and portrayed collective emotions as categorically ominous and

detrimental to social order. Although Le Bon did account for issues of power and strategy in his analysis, these themes were most aptly spelled out by Nobel laureate Elias Canetti (1960) in his vivid descriptions of the strategic orchestrating of collective emotions by the Nazi regime in Germany. Like Le Bon, Canetti pointed to the “manipulative” potential of collective emotions in steering behaviors of many individuals in some desired direction, even if only temporarily. Yet, Canetti departed from the previous crowd theory in viewing crowds also as means of overcoming interpersonal distance and fostering equality between the participants (see McClelland, 1989).

The concepts, theories, and descriptive accounts offered by these thinkers alone already cover many of the different facets of collective emotions that are evident in the examples just portrayed. Many instances of collective emotions are elicited in physical proximity—in crowds and gatherings—but shared beliefs, norms, and values as well as a sense of group identity and belonging likewise play important roles. Collective emotions, like other kinds of emotions, do something to groups and individuals, they may urge people to collective action, promote solidarity and cohesion as well as demarcation and exclusion, and affect what people believe, desire, and value. Finally, technologies, in particular media technologies, can make crucial contributions to the emergence of collective emotions across individuals that are not physically co-present.

Although these—and surely other—seminal works have clearly and visibly put collective emotions on the maps of the research agendas of the social and behavioral sciences and the humanities, collective emotions have never quite moved to their center stages. They have, however, continuously played an important role in specialized areas of various disciplines long before the so-called “emotional turn” took place and individual emotions regained prominence in scientific endeavors. Ascribing emotions to social collectives rather than to individual actors has almost traditionally been the case, for example, in studies on conflict (e.g., hatred and resentment, Petersen, 2002; Scheler, 1912/2004), reconciliation (e.g., shame and guilt, Branscombe & Doosje, 2004; Gilbert, 2002; Scheff & Retzinger, 1991), or social movements and collective action (e.g., anger and pride, Gamson, 1992; Gould 2009; see also Goodwin, Jasper, & Polletta, 2001). Surprisingly, however, detailed conceptual analyses of what, exactly, collective emotions are, how they relate to individual emotions, how they are elicited, and what their subjective experiential qualities are, remain rare (but see of course the previous publications of many of the contributors to this volume for discussions of some of these issues). Likewise, empirical studies looking at the psychological and neurological mechanisms underlying collective emotions, at their individual and social functions, and how they are shaped and represented through media and discourse, are almost absent from the literature. In any case, they have not kept pace with related inquiries of individual emotions.

More recently, it seems that interest in collective emotions and related phenomena, such as emotional climates, emotional atmospheres, emotional communities, (inter-)group emotions, and circulating affects, has increased across many disciplines and discourses, in particular sociology, philosophy, social psychology, organizational psychology, political science, and social anthropology. This interest is most likely propelled by a more

general upsurge in research on the social, cultural, and interpersonal aspects of emotion on the one hand (e.g., Ahmed, 2004; Parkinson, Fischer, & Manstead, 2005; Tiedens & Leach, 2004), and, more indirectly, by trends in philosophy and cognitive science towards refined conceptual analyses of collective entities (e.g., Searle, 1995; Tuomela, 2007) and the social and collective properties of mind and cognition on the other hand (e.g., Clark & Chalmers, 1998; Gallagher & Crisafi, 2009).

This volume seeks to re-invigorate and continue the heritage of collective emotions research in the social and behavioral sciences and the humanities by addressing pertinent and long-standing conceptual and theoretical questions, by linking collective emotions to the vast body of research on individual emotions, in particular approaches concerned with the social and cultural aspects of individual emotions, and by bringing together perspectives on collective emotions from a wide variety of disciplines. We have decided to structure the 28 chapters in this volume following a logic that proceeds from foundational conceptual issues to the micro-social and psychological mechanisms underlying collective emotions in face-to-face encounters, to the social relational context of collective emotions, their social consequences, issues of group- and intergroup-emotions, the role of social organization in collective emotions, and finally the importance of online social systems, in particular social media, for understanding collective emotions.

Section 1

The first section on conceptual perspectives focuses on foundational conceptual issues in research on collective emotions. The contributions outline and discuss different theoretical perspectives in understanding collective emotions, such as phenomenology, collective intentionality, the extended mind, and interpersonal rational patterns of reactive attitudes. Most of these perspectives have not yet been applied to research on collective affective phenomena. Moreover, these philosophical contributions lay the groundwork for connecting theoretical and empirical research on individual emotions with inquiries into collective affect.

Hans Bernhard Schmid argues that groups and corporations can have emotions because they have other intentional attitudes such as beliefs and intentions. By virtue of having proper intentional attitudes, groups have consciousness, and thus meet an important precondition for having emotions. Schmid suggests that corporate emotions are based on the plural pre-reflective self-awareness of shared affective concerns, and they are temporally slow rather than fast.

Margaret Gilbert then analyzes collective emotions on the basis of our everyday ways of thinking and talking about them. Gilbert argues that a special type of commitment—a joint commitment—lies at the base of collective emotions. This explains central aspects of the genesis and functioning of collective emotions including their role in the practical reasoning of the parties and in predicting their behavior.

Jan Slaby suggests that collective emotions are promising candidates for “extended emotions” even if affects and other qualitative states have not been previously analyzed within extended mind theory. Slaby’s revision of this framework draws from an enactivist

understanding of emotions as affective, embodied engagements with the world that he supplements with the notion of a “phenomenal coupling.” It refers to the dynamic embodied experience of being affectively “gripped” by a process or structure in one’s environment, most notably in face-to-face social interaction.

Finally, Bennett W. Helm introduces a new understanding of collective emotions as emotional communities of respect. These are constituted of interpersonal rational patterns of reactive emotions, such as gratitude, resentment, approbation, indignation, and guilt. The patterns are interpersonal because in feeling a reactive emotion a person is calling on others to feel corresponding emotions, and their failure to do so is, other things being equal, a rational failure. Reactive emotions are simultaneously responses and commitments to the dignity of community members, and the proper response to dignity is respect. The capacity for reactive emotions can be acquired only from being a member of such a community of respect.

Section 2

The second section of the volume explores some of the basic physiological and psychological mechanisms and processes that contribute to the elicitation of collective emotions. These include neural mirroring, shared attention, facial mimicry, and emotional contagion, all of which relate to emotional behavior in face-to-face social interaction and close physical proximity. Although they refer mostly to dyadic interaction, they hold important implications for understanding larger-scale affective phenomena in groups and crowds as well.

Claus Lamm and Giorgia Silani identify different components that contribute to empathy as a possible basis of collective emotions. These include a sensory-driven component that entails an automatic experiential sharing of the affect of others, a cognitive component that enables the regulation as well as the deliberate elicitation of empathy by means of mechanisms such as perspective taking, and self-awareness and self-other distinction, which promote the empathic observer to disentangle vicarious from self-related emotional responses. Lamm and Silani review mechanisms underlying these components from a neuroscientific perspective and discuss how this might contribute to a better understanding of collective emotions.

Tobias Brosch explores emotional attention in social contexts. He points out that the rapid selection and prioritizing of social information is consequential to humans who live in social environments. Accordingly, signals about the emotional state, intentions, and interests of others modulate our attention and perception in social interaction. Here, Brosch focuses on two complementary mechanisms—attention capture by socio-affective information, and joint attention—and discusses possible implications for the elicitation of collective emotions.

Ursula Hess, Stephanie Houde, and Agneta Fischer then ask to what degree facial mimicry counts as an automatic motor reaction or a reaction modulated by social context, and how mimicry may contribute to the elicitation of collective emotions. They argue that social context information is crucial for the occurrence of mimicry and that mimicry

predominately serves to signal affiliation between individuals or group members. In their account, facial mimicry therefore reflects not what the observer sees, but rather the other's knowledge of others' emotional state which might be critical for the emergence of collective emotions.

Mimicry is also an important aspect of primitive emotional contagion that Elaine Hatfield, Megan Carpenter, and Richard L. Rapson survey, highlighting its role as a precursor of collective emotions as well as in the social contagion of various mental and physical diseases and problems, such as allergies, obesity, reactions to chemical spills, and environmental hazards. Hatfield and colleagues thus make a more general case to conceive collective emotions as partly brought about by various processes of contagion.

Section 3

The third section brings together contributions on the social relational foundations of collective emotions. The chapters discuss the various ways in which the elicitation and experience of collective emotion is shaped by social and socially situated cognitions, such as social appraisals, thus reflecting individuals' embeddedness in social relationships and networks. The contributions show how the linkage between cognition and social environment can contribute to affective convergence and the elicitation of collective emotion.

Ilmo van der Löwe and Brian Parkinson argue that one of the main functions of emotion is to align interpersonal relations. Therefore, social networks provide a useful framework for understanding emotions at different levels of sociality. This approach treats groups as empirically observed collections of individuals whose interpersonal relations with others come at varying levels of embeddedness. The authors maintain that the social network approach to social groups differs from traditional social identity and self-categorization perspectives in both theoretical and practical respects.

Martin Bruder, Agneta Fischer, and Antony S. R. Manstead then review evidence for emotional contagion and social appraisal as causes of collective emotions. They conceive of social appraisals as processes integrating information from others' emotional expressions into one's evaluation of a situation. Individuals will engage in social appraisal especially when they are uncertain about a situation and appraise others' expressions as trustworthy and reliable information about the situation. Even so, the generation of collective emotions is a matter of the interplay between interpersonal bottom-up processes and top-down processes related to group norms.

Joel Krueger explores emotions as distributed processes in the construction of social niches, i.e., forms of engagement aimed at shaping one's social environment to establish and negotiate relationships, to communicate intentions, and to tune into others' thoughts and feelings. Krueger identifies material and ideational factors of social niches that support the emergence of emotions in both short and long terms. His argument draws from theories of distributed cognition and different strands of empirical work, such as developmental psychology.

Section 4

The fourth section discusses the social consequences of collective emotions. The chapters in this section highlight the role of collective emotions in the emergence, integration, and maintenance of social groups and communities. Several chapters also emphasize the importance of collective emotions in the formation and reinforcement of social identities. One particular challenge is how to foster emotionally felt collective identity in contemporary multiethnic and multi-cultural societies.

Janice R. Kelly, Nicole E. Iannone, and Megan K. McCarty focus on the functions of shared affect in small groups and teams. They observe that shared affect in groups is achieved through several mechanisms that include emotional contagion, social entrainment, emotion regulation, and impression management. They argue that, on the one hand, shared affect facilitates group activity by improving intragroup communication and encouraging group bonding. Yet, on the other hand, they suggest that shared affect may also be disruptive to group. Kelly and colleagues thus highlight the need for future research to identify both positive and negative consequences of shared affect in groups.

Edward J. Lawler, Shane R. Thye, and Jeongkoo Yoon theorize on how and when collective emotions emerge from social exchange and what role they have in creating cohesive relations and affective ties to groups. They argue that collective emotions emerge in social exchange relations especially when people infer that each other have similar emotional responses to their shared experiences of exchange. This is most likely the case when actors perceive that they are mutually responsible for the results of an exchange, and when actors attribute their individual emotions to the unit of exchange. Lawler and associates suggest that these processes can also operate in the absence of physical co-presence and emotional contagion.

Dario Páez and Bernard Rimé then survey the impact of collective emotional gatherings, such as demonstrations and rituals, on identity fusion, shared beliefs, and social integration. They point out that collective gatherings reinforce personal affects, social integration, and social beliefs, especially among those participants who experience higher emotional communion and fusion of identity with the group. Páez and Rimé argue that these experiences also enhance perceived collective emotions or emotional climate as well as increase agreement with positive shared social beliefs.

Joseph de Rivera then discusses the role of collective emotions in the formation of social identities. He holds that a sense of unity in society is largely achieved through collective emotions, as envisioned by Durkheim. This, in turn, would require different types of emotional cultures to unify diverse groups in more complex societies, such as modern nation states. De Rivera also identifies a conflict between the need for autonomy and the need for group membership. He suggests that the satisfaction of both needs in modern societies requires a new conceptualization of personal identity that is also capable of offering a social identity for a more global community.

Section 5

The fifth section highlights the role of social groups and social identity in experiencing specific kinds of collective emotions, most notably group-based or intergroup emotions. These emotions are experienced on behalf of groups or towards groups, and they emerge when individuals belong to or identify with social groups. A central issue here is the interplay of individual and group-based emotions in group and intergroup dynamics, in particular cooperation and conflict. Two distinct collective emotions, pride and guilt, are analyzed in separate chapters.

Devin G. Ray, Diane M. Mackie, and Eliot R. Smith propose an understanding of intergroup emotions as emotions derived from peoples' self-categorizations as members of a social group rather than from individual definitions of the self. They discuss intergroup emotions theory as a framework for understanding these emotions and the bewildering variety and apparent senselessness of intergroup conflict and its expression. Ray and associates advance this theoretical framework as a useful perspective for understanding collective emotion, collective action, and intergroup relations.

Mark A. Ferguson and Nyla R. Branscombe then focus on collective guilt that individuals experience when their social group is perceived as having perpetrated immoral acts calling for amends for the harm done. The chapter reviews more than a decade of research on collective guilt in social psychology. The authors first describe the experience of collective guilt, as well as its origins in research on social identity and intergroup emotions, and then identify the major antecedents and consequences of collective guilt. Finally, Ferguson and Branscombe identify key limitations of existing research and highlight potential directions for future research.

Gavin Brent Sullivan discusses collective pride in groups such as organizations, communities, and nations. He first addresses skepticism about the existence of collective pride as a discrete emotion by highlighting the background features, precipitating contexts, expressive forms, and cultural importance of this emotion. Sullivan then discusses aggregative, network, and cultural models of collective emotions by looking at cases of positive group emotion generated in mega-sports competitions, social movements, and group conflict. The chapter concludes with defending, on conceptual and phenomenological grounds, the distinction between celebratory collective pride and negative forms of defiant and narcissistic collective hubris.

Finally, Eran Halperin surveys the role of collective emotions in creating, preserving, and resolving intractable group conflicts. He maintains that collective emotions play a pivotal role in shaping individual and societal responses to conflicting events. He also suggests that they contribute to the evolution of social contexts that maintain the emotional climate and collective emotional orientation they previously developed. Halperin also discusses the mutual relations between long-term collective emotional phenomena and individual-level reactions to conflict-related events and introduces strategies of collective emotion regulation as possible paths for conflict resolution.

Section 6

The sixth section centers on the role of collective emotions in social organization and social movements. Several chapters in this section analyze collective emotions within ritualistic frameworks and practices that involve entrainment at different levels of behavior. A common theme in the chapters is the dynamic interplay between collective emotions as proponents of social change on the one hand, and the role of stable patterns of social structure and organization as a precursor of collective emotions on the other hand. Special attention is given to the different ways in which collective emotions figure in political action as well as to the relevance of emotional knowledge in religious life.

Randall Collins opens the section with an exposition of his interaction ritual theory. He defines interaction ritual (IR) as a causal mechanism by which variations in mutual focus of attention and rhythmic entrainment transmute shared mood into collective efferescence which in turn results in feelings of solidarity and respect for group symbols. Successful IRs are claimed to generate emotional energy for the participants whereas failed IRs reduce this energy. Individuals are motivated to repeat interactions that result in high levels of emotional energy and to avoid those that lower these levels. Collins suggests that the IR mechanism can explain differences in personality as well as behavior in political and social movements.

J. David Knottnerus continues in the ritualistic framework with an overview of his structural ritualization theory that highlights the influence of rituals, both religious and non-religious, on individuals' collectively shared emotions and integration into groups. Shared attention, interactional pace, the interrelatedness of actors, and resources are identified as key factors of rituals that contribute to the development of shared emotional states and commitment to groups. Knottnerus argues that rituals and collective emotions can operate at different levels of the social order and may spread from one level to another.

John Protevi first introduces three conceptual issues associated to political emotion, the controversy between individualism and emergentism about the nature of collective emotions, the problem of how to scale interpersonal emotions to the group level, and entrainment. He then reviews works addressing these issues in the history of political philosophy, in contemporary feminist, "continental," and cultural studies, and in scientific studies of political emotion and its relation to electoral politics. Finally, Protevi discusses a case study of political emotion to illustrate his arguments: military training that develops the emotional capacity to perform violent action for political purposes.

James M. Jasper locates emotions in interpersonal interactions that are shaped by cultural expectations, hierarchies, organizational commands, and formal and informal rituals. He suggests that these factors are capable of explaining the simultaneous generation of similar emotions across many individuals without the necessity to postulate some group mind or automatic contagion. In concluding, Jasper discusses the emotions of protest as cases revealing the mechanisms upon which emotion-aligning processes operate.

Finally, Hubert Knoblauch and Regine Herbrik discuss emotions that arise in enacting and celebrating religion and religiosity. They introduce the notion of "emotional

knowledge” that refers to both knowledge gained via emotional experience and knowledge about emotions. They link both categories to the concepts of feeling rules and emotional regimes and suggest the notion of “emotional styles” to better understand the overt and enacted aspects of emotional knowledge. Knoblauch and Herbrik develop these theoretical arguments using an empirical case study in which they compare different religious emotional cultures.

Section 7

The seventh section discusses the role of online social networks and e-communities—and the social web more generally—in the elicitation and expression of collective emotions. Recent political developments have clearly shown the relevance of online social networks in driving social movements and social change. At the same time, these systems are a means by which millions of people express and describe their everyday feelings and emotions. This section brings together chapters dealing with the measurement, modeling, and large-scale effects of emotions in the social web.

Mike Thelwall and Arvid Kappas show how the expression of emotions in many-to-many communication networks can serve as a trigger for the elicitation of collective emotions which are increased or dampened by complex patterns of dynamic exchange. The chapter gives an overview of quantitative methods to automatically detect sentiment in social web texts and shows how these methods can be applied to large-scale studies of the social web. The chapter also includes case studies of sentiment analysis in Twitter, YouTube, and other social network sites exploring homophily and the role of sentiment in online discussions.

David Garcia, Antonios Garas, and Frank Schweitzer then present an approach at formally modeling collective emotional dynamics by analyzing messages of individual internet users in chatrooms, fora, and product review communities. They introduce various statistical methods and procedures of sentiment detection to reveal patterns in users’ online activity and emotional expressions. Their findings are reproduced by agent-based models in which agents’ emotional states are characterized by their valence and arousal which change according to certain stochastic dynamics. Garcia and colleagues demonstrate that agent-based models are capable of replicating empirically observed collective emotional dynamics on the internet.

Marcin Skowron and Stefan Rank propose to investigate the genesis and influence of collective emotions in e-communities by means of interactive computer programs that can monitor and participate in online communities. They then discuss application scenarios for such “interactive affective systems” that may extend the scope of investigating collective emotions both qualitatively, i.e., by engaging users directly, and quantitatively, i.e., by reaching out to users who usually do not voice in online contexts. The authors also provide an overview on implementing the computational awareness of collective emotions in the area of affective dialog management, from affect detection to user modeling, and discuss relevant experimental studies.

Finally, Funda Kivran-Swaine and Mor Naaman explore the social sharing of emotions in large-scale social awareness streams (SAS) such as Facebook and Twitter. Building on the observation that users frequently engage in the social sharing of emotions during interactions in SAS, the authors discuss whether gender is a relevant category that affects how users express emotions online and whether this is influenced by the audience that is addressed in communications. The authors support their arguments with results from a large-scale analysis of emotionally expressive language use on Twitter.

The chapters assembled in this volume touch on an exceptionally broad variety of issues related to understanding collective emotions—in different contexts, in terms of causes and consequences, from neurophysiological mechanisms to discourse and social order, and, obviously, from very different disciplinary standpoints. As editors of this book, we could have also opted for the opposite way, that is for selecting contributions based on their adherence to a specific understanding of collective emotions or on their disciplinary orientation. Although this would surely have its merits in terms of rigor and consistency, we chose not to do so—partially because widely accepted accounts of collective emotions are only beginning to take shape even within distinct disciplines—and to instead welcome and bring together the existing diversity of concepts and approaches. We think that this is an almost necessary exercise in a field that is of interest to so many disciplines, has a long heritage, and a broad societal relevance.

This being said, we hope that the volume will be useful to inform future theorizing and research in the sciences and humanities, as well as welcomed by students of affect and emotion in various disciplines. We would like to thank all authors who accepted our invitation to contribute to this book and joined this endeavor with enthusiasm and thorough professionalism. Without their dedication, the book would not have been completed in such a timely fashion. We also thank our editorial team at Oxford University Press, in particular Martin Baum and Charlotte Green, for their continued and much appreciated support. We are indebted to Boris Klein at Freie Universität Berlin for editorial assistance and for always keeping an overview of the project. Last but not least, we thank Klaus Scherer for encouraging us to pursue this project and publish it within the Series in Affective Science at Oxford University Press.

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Section 1

Conceptual perspectives

Chapter 1

The feeling of being a group: corporate emotions and collective consciousness

Hans Bernhard Schmid

University of Vienna

When Steve Jobs died on October 5, 2011, Apple Inc. quickly wiped the pictures of their latest products off their homepage and replaced them with a large and plain grayscale portrait of Apple's cofounder, with nothing to read but the caption "Steve Jobs 1955–2011." The portrait remained there for an entire week. The *Hindustan Times* headlined: "Apple Mourns Loss of Great Man."

On November 16, 2010, one of Lockheed Martin's newly developed F-22 Raptors crashed, killing the pilot. A spokesperson said in a press conference that while Lockheed Martin rejected all allegations that the product was "unreasonably defective," "the company sympathizes with the [pilot's] family for their loss."

After Facebook's failed initial public offering at the stock market in May 2012, a Facebook spokesperson was asked at a press conference whether the company was upset with NASDAQ's handling of the matter. She did not deny that that was in fact the case.

In countless press conferences, mission statements, annual reports, and advertisements, business companies express their hopes, fears, worries, sympathies, regrets—and, of course, their highly developed and intensely felt concerns and senses of responsibility. Such companies present themselves as corporations with *feelings*.

Is it possible, *in principle*, for a corporation to *have* emotions, or are cases such as the ones listed here metaphorical or fictional? Received philosophy strongly suggests that groups cannot have emotions, because emotions involve consciousness, and groups do not have consciousness, even though some groups may have intentional states. This chapter defends the view that some groups have proper emotions with all the collective consciousness they involve. In the first section, it is argued that if groups have complex intentional states, they have to have consciousness. The second section discusses the idea of shared feelings, which is defended against some critics. In the third section, it is argued that some shared feelings are corporate emotions.

Is there nothing it is like to be a group?

Where the term “corporate emotions” is used in the received literature, it refers to emotions of individual employees that are regulated by the corporation’s normative structure (Flam, 2002). It is not considered in earnest that the corporations *themselves* may actually have emotions. This seems to be in tune with folk psychology. In an important study, Knobe and Prinz (2008) have explored whether or not people accept *ascriptions of emotions or affective states* (such as joy, regret, being upset, and depression) to corporations (business companies are used as examples) as “sounding natural.” The result is that people find these ascriptions sound “weird,” even though they tend to accept ascriptions of other mental states (such as decisions, beliefs, desires, and intentions) as sounding “natural.” Statements such as “Acme Inc. intends such and such,” “Acme Inc. wants such and such” are okay, yet statements such as “Acme Inc. regrets...,” “Acme Inc. feels guilty...,” or “Acme Inc. feels depressed...” are not. People seem to think that corporations can have thoughts and intentions, yet it appears that they do not think that corporations can have emotions.

In their study, Knobe and Prinz tested people’s intuitions concerning *fictional ascriptions* of emotion to a *fictional corporation*: Acme Inc. is known not to exist (it is the fictional corporation par excellence in American pop culture). One wonders how Knobe and Prinz’s test participants would have reacted to *actual expressions* of emotions by *actual companies* such as the ones mentioned earlier. If it is believed that corporations do not really have emotions, what about the countless expressions of emotional concerns, grief, worries, hopes, etc. issued by corporations? Given the fact that many cases of corporate expressions of emotions cast the company in a particularly positive light (as highly reliable, fond of their customers, concerned about the interest of their customers, employees, and to the environment, etc.), an interpretation that comes to mind is that any such talk may just be taken to be *bullshit* in the Frankfurtian sense of the term. According to Frankfurt’s (2005) influential analysis, the bullshitter pursues a purpose that is not epistemic (he neither wants to speak the truth, nor does he intend to lie), and he says whatever seems to be conducive to his non-epistemic purpose. Business companies are usually assumed to pursue the purpose of profit maximization, and to be rather single-minded about that aim. Their expressions of emotions therefore may be seen just as a tool to be more effective in that regard (by means of appearing to be more sympathetic, more friendly, more “personal,” more reliable, more *like us* to customers, shareholders, authorities, etc.).

According to one influential view, however, the same point could be made about *any* expression of emotion. Solomon (1912–1916/1973) argues that emotion should generally be seen as *choices* made in the light of an agent’s non-epistemic purpose. Insofar as this is true, bullshit may just be what expressions of emotions really *are*. And even if Solomon’s view is too radical, he is certainly right in many cases. Thus there is no reason to treat individual emotions differently from corporate emotions in that regard.

In their study, Knobe and Prinz’s foremost interest is on determining whether or not folk psychology follows functionalist lines. The question is: do people intuitively conceive of mental states in terms of behavioral dispositions or not? This question provides the

guideline along which Knobe and Prinz inquire further into the reasons for the disinclination to ascribe attitudes such as those of regretting or being upset about something to companies. Is it that people do not believe that companies may actually *behave that way*, or is it, rather, that people think that regret and being upset involves some *qualitative experience*, a phenomenal feel that companies, for lack of consciousness, do not have?

In a refinement of their experiment, Knobe and Prinz asked people how “natural” or “weird” they find the following statements: (1) “Acme Corp. is feeling upset,” “Acme Corp. is feeling regret”; (2) “Acme Corp. is upset about the court’s recent decision,” “Acme Corp. regrets its recent decision.” Both types of statements ascribe upsetness or regret to a corporation, but they do so in a different way: The first statement casts these states clearly in terms of *phenomenal consciousness* (“feeling”), whereas the latter emphasizes the *intentionality* of these states (what the attitude is “about”). The result seems rather unambiguous. A substantial percentage of test participants think that the *intentionalist* version of the upsetness/regret-ascription (2) sounds “natural;” whereas the overwhelming majority thinks that the *phenomenal* or *consciousness-related* version of the claim (1) sounds “weird.”

The conclusion that Knobe and Prinz reach is that the public’s reluctance to ascribe certain kinds of mental states to corporations is based on their belief that these states involve *phenomenal consciousness*, some sentience, some form of experiencing, and that there is simply nothing “it is like” for these corporations to be in those states. People are inclined to ascribe *intentionality* to corporations, but not *consciousness*. And in spite of all the efforts of some cognitivists who try to make conscious “feelings” appear as mere “contingent accompaniments” (Solomon, 1912–1916/1973) of emotions and focus on their intentionality, it seems clear that to folk psychology, the phenomenal dimension is essential to the emotions. It is essential for emotions that they are *felt*. And this is possible for individuals only, not for corporations—or so it seems.

Knobe and Prinz’s view of folk psychology is in tune with the predominant view in current philosophy of group agency. Many philosophers believe that groups, corporations, or other collectives may have mental states, but deny that they may have conscious states. According to them, groups are genuine intenders and believers, but they are not *experiencers*, and they have no phenomenal awareness to go with their attitudes. The following are three important accounts of group agency that in spite of all the differences between them agree on this claim:

Margaret Gilbert (1989) argues forcefully that there are intentional states that are a “plural subject’s” rather than the participating individuals’. These mental states are those to which the participating individuals are jointly committed “as a body.” Plural subjects have intentions and beliefs, but they do not, according to Gilbert, have conscious experiences.

Carol Rovane (1998, 2004) argues for the possibility of supra-individual persons with collective minds. However, she argues that all the consciousness there is remains strictly at the level of individuals. While supra-individual persons may have beliefs and intentions (“a rational perspective”), only individuals have consciousness.

Philip Pettit (2004; List & Pettit, 2011) argues that groups may have “a mind of their own,” but only some attitudes can be “collectivized”: beliefs and intentions can, perceptions and memories cannot, and groups are “not centers [...] of sentience” (Pettit, 2004, p. 188) and do not have consciousness.

Thus the general view seems to be that even though some groups have a mind, in a literal sense of the word, there is nothing “it is like” for those groups to have or be in the intentional states in questions. The intentional states they have do not “occur” to the group, there is no “awareness” of “feel” to them, for the group. With regard to non-human collectives, Dennett has put this point as follows: “What is it like to be an ant colony? Nothing, I submit. [...] What is it like to be a brace of oxen? Nothing (even if it is like something to be a single ox) [...] there is no organized *subject* to be the enjoyer or sufferer, no *owner* of the *experiences*. [...] There is no unity [...] as the candidate subject” (Dennett, 2005). The point is not simply some lack of organization. In the human case, many groups are obviously organized in a rather sophisticated way. Rather, the point is that whatever unity there is in a group, it is not of the kind for which there is something “it is like” to be that group (cf., Sosa, 2009).

How plausible is it to assume that there are minds without any consciousness? It may seem that the claim is unproblematic, given the fact that mental states are sometimes ascribed to machines, and that unconscious intentional states are already accepted as a rather common feature of the individual mind, such as in the case of a belief or intention of which a person is not currently aware. But upon closer inspection, it becomes apparent rather quickly that this analogy is shaky. Just because individuals have some unconscious intentional state does not make it plausible that *entire minds* may lack consciousness. Granted that individuals believe and intend many things of which they are not currently aware, it seems rather obvious that these are parasitic cases, as it were. If we ascribe such states to individuals, we certainly do not do so *independently of the question of whether or not the individual in question has any consciousness*. Rather, it seems that it is in virtue of its having consciousness that non-conscious intentional states are ascribed. According to an apparently plausible intuition, a person’s belief that lions are subject to gravity, or that 5336 is an equal number, is ascribed to a person in virtue of that person’s disposition to form an according *occurrent* (conscious) belief when the question comes up. Insofar as this is true, the analogy between the group mind and the non-conscious part of the individual mind clearly fails, as the group mind is not assumed to be partially non-conscious, but rather *a-conscious* in its entirety. It lacks the property in virtue of which individuals, according to the conception described earlier, are ascribed mental states that do not involve consciousness. Yet the question is: what “mind” could somebody possibly have if nothing could ever occur to him or her?

The mind is not just an incidental overlap of consciousness and intentionality. Rather, consciousness plays a *constitutive role* for the mind. This becomes particularly obvious if attention is paid to the *subjective character* of consciousness that comes with the qualitative character. The qualitative character is the “feel,” the “experiential dimension,” the “what it is like” involved in consciousness. The subjective character is the feature in virtue of which consciousness involves some sort of basic self-awareness (e.g., Kriegel, 2009). The self-awareness at stake here should not be confused with the kind of self-reflection that occurs when somebody directs his or her attention to herself. Rather, self-awareness is *pre-reflective* (cf., Zahavi, 2005, based on accounts of self-awareness in phenomenology

and the Heidelberg School). Where there is consciousness, there is “something it is like” *for me*, and this “for me-ness” is the subjective character of consciousness in virtue of which consciousness is self-awareness (in the early stages of development, the “me” may not be much more than the conscious state itself).

Consciousness (in terms of self-awareness) plays a crucial role in the constitution of the mind in several respects. First, it constitutes subjectivity, selfhood, or “ownership” of the mind. The way in which mental attitudes are *an agent’s* crucially depends on self-awareness. What distinguishes one agent’s attitudes from another agent’s is not necessarily in the way it is reflected in an agent’s behavior. After all, people often conform to other people’s desires. What makes an agent’s attitudes his own is that it is only of these attitudes that an agent can be *self-aware*.

Moreover, self-awareness is essential for the kind of *unity* that is constitutive of the mind. A mind is not just any random collection of intentional states. Rather, the states are what they are only within a mental framework. Undoubtedly, minds are prone to inconsistencies of any sorts of ways that do not prevent them to continue to exist as minds; people may have incompatible goals and contradicting beliefs. Goldie (2012) was certainly right in calling the mind the “mess inside.” But there are limits to inconsistency; there has to be some order at least in some areas, or else the mind simply breaks down, and ceases to be “a mind” in terms of a system of beliefs and intentions. Consciousness is essential as a feature that ensures and maintains consistency; it drives mental housekeeping, as it were.

If an agent thinks that p, but is confronted with evidence that should lead her to the belief that non-p, it is in virtue of the agent’s *self-awareness* that she cannot avoid seeing the inconsistency as her problem. There is nothing logically wrong with the statement “p is wrong, but I believe it,” or “p is bad, but I want it.” But it is not a viable position for a *conscious* being. A conscious being may disown some of her cognitive and conative attitudes—attitudes that he or she “finds” in his or her mind “against her will,” as it were. But only an *owner* of his or her mind can *disown* attitudes, and this involves the self-awareness of a conscious mind in virtue of which a mind’s attitudes are an agent’s *commitments*. Last but not least it is consciousness in virtue of which a mind can be *focused* on a topic, and have a sense of *relevance*, of what matters and what does not.

Considering the fundamental role of consciousness in the constitution of the mind (ownership, unity, relevance, commitment) raises serious doubt concerning whether the idea of a mind without consciousness makes any sound sense. It would be unclear whose “mind” such attitudes would be, it would not be unified and focused, and it would be unclear how anybody could be committed by that “mind’s” attitudes.

Shared feelings

Emotions are paradigmatic for consciousness because they normally function as *fast tracks* to ownership, unity, sense of relevance, and commitment. Emotions achieve in split seconds what would otherwise take too much time. There is no faster way to knowing what you think, to having an unambiguous and clear-cut sense of what matters, and to being ready to treat your attitudes as commitments than a pang of fear. Dennett (1984)

illustrates this with the example of an artificial intelligence-empowered robot that receives the information that a bomb is going to explode in its hangar in 10 minutes. The robot integrates this information in its database and starts processing. The bomb explodes while the robot has just figured out how its leaving the hangar would influence the tea price in China.

A similar example is Little Red Riding Hood, who, on her visit to her grandmother's lonely house in the woods, calmly and without jumping to any conclusions asks grandma all these questions about why she has such a deep voice, furry skin, red glowing eyes, clawed paws, and these long yellow fangs in her mouth. An agent who experiences a pang of fear has a decisive advantage over a careful reasoner. In fear, danger is in the *focus* of the mind, the perspective is organized around this focus—grandma's cap on the wolf's head and the tea price in China are ignored without thinking—and readiness to act is immediately established.

It may seem, however, that corporations or other group agents are usually much more like Dennett's robot and Little Red Riding Hood than like individual human beings. How many ships or planes have crashed because the crew proceeded in a robot-like fashion and therefore could not get their act together? And how many companies, associations, armies, and even states have failed because even in the face of clearly visible imminent danger to their business, policy, or strategy, they have failed to take even the most obvious steps? In fact, matters seem even worse in the collective case. The robot remains an integral whole right to the end of its sad story; some group agents simply seem to disband in the face of danger, rather like the biblical herd of sheep that disbands by each member running his or her own way (Isaiah, 53, 6). Corporate thought, if it occurs, is “slow thinking” rather than “fast thinking” (Kahnemann, 2011), and this seems to back the case against corporate emotions. People can be shocked, surprised, or filled with a sudden feeling of joy, corporations can't, their mind is simply too slow for that, and they lack the necessary perceptual apparatus.

True as this is, it would be a mistake to conceive of the emotions *in general* as “fast thinking.” Some emotions really are fast tracks to ownership, mental unity, relevance, and commitment; other emotions, however, are not. Anger does not only come in the form of sudden rage, there is also a kind of anger that emerges from a careful and slow evaluation and persists over long stretches of time as a grudge. Sadness is an emotion that does not usually come as a pang or any other sudden experience, and similarly for upsetness, guilt, or confidence. It is on such “slow” emotions that I shall focus in the following.

Gilbert (1997, 2002) has developed an account of “slow” group emotion; her paradigm case is the sense of collective guilt. There is much to learn from Gilbert's analysis; however, there is one problem, and it is this problem rather than the many strengths of her analysis on which the following is focused. Gilbert leans heavily towards the cognitivist view that emotions (in her case: guilt feelings) are intentional states or judgments rather than “feeling-sensations,” even though she states this point (which she ascribes to Martha Nussbaum) with some caution: “[O]ne who feels guilt over what she has done must take what she has done to be wrong to some degree. Perhaps, then, such cognitions lie at the

heart of the emotion. Perhaps specific ‘feeling-sensations’ are not essential, but only frequent concomitants” (Gilbert, 2002, p. 119). She then proposes to conceive of collective emotions in terms of *joint commitments* along the same lines proposed for the analysis of joint intentions and shared beliefs. In an earlier paper, Gilbert (1997) had conceived of collective guilt in terms of the members’ awareness of their participation in the wrongdoings of a group (feeling of “membership guilt”), and as affective evaluations of what the group has done. In her later contribution, Gilbert (2002) goes one step further, arguing that there is a genuine “collective guilt feeling,” which is the group’s rather than the individuals’. But as Gilbert does not conceive of the kind of unity that is a group in terms of a “center of consciousness,” this “feeling” cannot not involve any “pangs” or “twinges” or other phenomenal states felt by the group; there is no qualitative dimension, no “feeling-sensation” to the group’s attitude. Rather, collective guilt feeling is the state in which a group is jointly committed to feel guilty, as a body, but if there are any “pangs” and “twinges” involved in this, these are the individuals’, not the group’s. Insofar as the guilt feeling is really collective, it is no feeling at all. Gilbert’s account of collective emotion is really a combination of a joint evaluative attitude with some individual feelings.

Against Gilbert’s account, I have proposed an account of *shared feelings* (Schmid, 2009). The claim is that there is a sense in which it is literally true that when a group of people has an emotion, there is one feeling episode, one phenomenal experience in which many agents participate. Group emotions are shared feelings. Shared feelings involve some “phenomenological fusion.” They are “shared” in the strong straightforward sense in which there is one token affective state in which many individuals take part.

This account seems provocative in that it goes against the idea of conscious experience or “conditions of the soul” as “internal” to the individual, an idea that Augustine has introduced so forcefully into Western thought. This view leads us to wonder how we could ever know how another individual feels (De Trinitate, VIII, vi, 9). Successful as Augustine’s idea—or invention—has been, it should be mentioned, however, that it has not escaped Augustine’s own notice that individuals can be interrelated in such a way that their souls are actually unified in a straightforward sense of the word, and Augustine, in his *Confessions*, has one of the most touching descriptions of how there can be a fusion between the souls of individuals (*Confessiones* IV, vi, 11)—an idea that he applies to deep friendship as well as to short-term interactions (*Confessiones*, II, v, 10).

I submit that it is wrong to follow Augustine in his internalism only, and neglect his conception of strong sharedness. In the case of shared feelings—shared grief, worries, and joys—there is a sense in which it is simply not the case that “I can’t really know how you feel,” because my feeling *is* your feeling, or rather: my feeling isn’t really mine, and yours isn’t yours, but *ours*. Shared feelings are conscious experiences whose subjective aspect is not singular (“for me”), but plural (“for us”); it is plural self-awareness of a shared affective concern (for a somewhat more detailed account of plural self-awareness cf. Schmid, 2013).

My account is inspired by Scheler’s concept of “immediate feeling-with” (Scheler, 1912/1954), and it shares some aspects with an account of emotions developed by the

German phenomenologist Hermann Schmitz, who argues that emotions are “atmospheres” which may span over several individuals. I agree with Schmitz concerning the idea of strong unity (one feeling-emotions, many participants). However, I disagree with Schmitz concerning the spatial nature of emotions, and I find his talk of “atmospheres” a misleading metaphor.

The claim that it is the *feeling* that unites the participants in a shared emotion has repeatedly been criticized in the recent literature. I shall mention some objections (1–4) in the following, and briefly sketch my reply.

- (1) Konzelmann Ziv (2007, 2009) argues that feelings are conceptually body-related, and the self is individuated in the same way as the (human) body, and that the notion of “sharing,” as applied to emotions, does not involve any whole-part-ontology. My reply is that there are “psychic feelings,” too (Stocker, 2003), which are not located in the body, that the claim concerning the individuation of the self is far from evident, to say the least, and that any sharing, in a straightforward sense of the word, implies the part-whole-structure. Conceiving of group emotion as a whole to which individuals contribute their parts is indispensable to account for the distinctive feature of genuinely shared emotions, as opposed to “parallel” individual emotions.
- (2) Krebs (2010) claims that phenomenal fusion implies that participants in shared emotions somehow forget that they are separate persons, and mistake their own experience for the other person’s. My reply is that even though phenomenal fusion is the experience of one plural self, the plural self, *as plural*, is a self that has more than one participant (the plural “we” is no singular collective “I”). There is ample room for awareness of interpersonal difference in phenomenal fusion, only that the differences in question are not of the kind of an unbridgeable abyss between monads, but rather of the kind of difference at play between different parts to a unified whole.
- (3) Sanchez Guerrero (2011, forthcoming) is friendly to the claim that emotions involve feelings, but goes on claiming that “in order to make room for the idea that feelings are at the core of collective affective intentionality, we are not required to solve the problem of shared feelings” (cf., Slaby, 2012, p. 89). However, I do not see how Sanchez Guerrero’s proposal of “caring-with” effectively avoids shared feelings (nor can I see why Sanchez Guerrero thinks it should do so in the first place; I have addressed a list of potential worries against shared feelings, see Schmid, 2009). “Caring-with” involves a shared affective concern, and it seems that “co-carers” need to be pre-reflectively affectively aware of their concern *as theirs* for this concern to be shared. This is just what phenomenal fusion is. An affective concern is not affective if it is never felt, and it is not shared in the straightforward sense if it is never jointly felt as shared. Even at the most fundamental level of consciousness, the “what it is like” to be concerned is shared only if it is not “for me,” but “for us.”
- (4) Salmela (2012) provides a particularly enlightened and careful analysis of shared emotion. I will focus on two objections he addresses against my view. Salmela does not reject the possibility of phenomenal fusion. However, he argues that no such

experience is a necessary condition of shared emotions, that it is “elusive” where it occurs, and that it is incompatible with a reflexive attitude from the parts of the participants. “True enough, people may *pre-reflectively* interpret and experience their feelings as *your* or *our*; but such experience vanishes as soon as the ontological individual becomes *reflexively* aware of the feelings as *her* or *his*. This may happen any time during a fused experience, for, however initially interpreted as to its subject, I can always step back from my experience and recognize it as *mine*. This kind of *veridical reflexive self-awareness* dispels the phenomenological collective subject, for it seems impossible to be aware of oneself experiencing *our* feeling, except in an aggregative sense [...]” (Salmela, 2012, p. 38).

Salmela is right on target in his emphasis on the importance of the difference between (pre-reflective) self-awareness and reflective self-consciousness; self-awareness is not “of” the self in the same way a reflective thought about oneself is “of” oneself; self-awareness is non-thetic or non-objectifying. In self-reflection, a person makes him- or herself the topic of his or her thoughts; self-awareness, by contrast, is the “subjective aspect” involved in any consciousness, be it reflective consciousness of oneself, or of something else. In many cases, self-reflection is about what *I* think, believe, and feel, and it is easy to forget that there are mental states of the plural form too, especially if one shares the Cartesian interest in infallibility. Taking one’s worry or fear to be shared by one’s group (“we fear that...”), one may be ignorant of the fact that one’s supposed partners have long become disaffected with the group, and do not participate in one’s worry. Or perhaps one is simply mistaken in the assumption that there *are* any others. Doesn’t this prove that the “real” subjective aspect of their consciousness is singular rather than plural, that is, that the phenomenal character of people’s experience is only for themselves, individually, and that any plural subjective aspect of an experience is only an elusive illusion, as Salmela seems to suggest?

The view that if you reflectively take your mental states (and especially your emotional feelings) as your own (singular), you are necessarily getting things right in a way you do not if you reflectively take your mental states to be shared (plural), does not seem convincing to me. It is true that my pre-reflective plural self-awareness of an emotional concern as ours may be mistaken—perhaps it turns out that our concern wasn’t *ours* really, but only my own (such as in the case when I realize that the person with whom I took myself to share an episode of joint attention is really a puppet). In that case, my implicit assumption that the concern is plural and thereby affects other participants is mistaken. But this relation to other individuals is not structurally different from the self-relation implicit in the case of “slow” individual emotions. There is no clear-cut distinction between errors concerning predication (what type of emotion is it?) and identification of emotion (whose emotion is it?). Take the case in which a person takes herself to have fallen deeply in love, only to find out a couple of days later that the feeling of love was really just a temporary infatuation, not love. Similar stories can be told for grief, guilt feelings, and sadness: what is reflectively interpreted as “deep sadness” may turn out to be just a momentary mood. In the case of “slow emotions,” you don’t really know what you feel because if you reflectively

identify your feeling as one of love, grief, or sadness, you make assumptions concerning your future dispositions, which may easily turn out to be wrong. The implication of others in shared feelings as a source of potential mistake is not structurally different from the implication of future selves in individual feelings as a source of potential mistakes; this should not prevent us from experiencing and interpreting feelings as shared feelings. Just that we may be making mistakes does not mean we're not in the game of actually sharing feelings.

I do not think that plural pre-reflective self-awareness of shared affective concerns is elusive in terms of being transitory, and a momentary, fleeting experience. I think it is quite ubiquitous, and a life without shared feelings would be possible only in extreme cases of autism, or perhaps psychopathy.

Another objection raised by Salmela is the following. In shared emotional episodes, people's "contributions" differ widely from each other, depending on their position, character, and role in the situation. To take an example from my earlier paper, the joint experience of joy at the successful performance of a symphony involves an intense feeling of exuberant elation, as far as the conductor is concerned. The man at the triangle who has done nothing other than to hit his instrument once in the process will probably feel nothing of the sort, but rather a mild feeling of satisfaction, and similarly for the individual members of the audience whose contribution was limited to attentive listening. The feelings are different according to the participating individual's particular concern within the shared project: the conductor's particular concern is with keeping the various individual contributions together, while the man at the triangle's concern may mostly be with his own small part only. Thus it seems that there are actually different emotions involved in the apparently collective case. Doesn't this prove that the feelings involved in apparently shared emotional episodes are separate rather than joint, or "fused?" The feelings which participants in shared emotional episodes experience are parts of a whole *in some way*; however, the parts differ qualitatively from each other, depending on a wide array of circumstances.

To say that what individuals experience is really only "their part," and does not extend to the whole to which their part is a part, is about as meaningful as to say that a student who shares an apartment with others really only lives in his own room and sometimes in parts of the kitchen and bathroom, and does not inhabit the shared apartment. Certainly, there are ways of *sharing* which consist in cutting the whole that is shared to pieces, thereby dissolving the whole to which the parts are parts. If people share a piece of cake, each participant enjoys his or her piece only, and by dividing it up the whole is destroyed; the participant's concern is with their part *de re*, and not with their part *as a part of the whole*. Such sharing is distributive in nature. But the sharing at stake here is certainly not of this sort; an orchestra performance in which each participant is concerned with his part *exclusively*, and not with the whole to which it is a part, would certainly be a bad performance. The kind of sharing at stake here is of the *participatory* rather than of the distributive kind, that is, of the kind in which participation does not *dissolve*, but rather

strengthens the whole to which the parts are parts. The parts are experienced and enjoyed as *parts of the whole* to which they belong.¹

Imagine you are sitting in the audience of the symphony performance, experiencing the shared enthusiasm. All of a sudden, you come to realize that you are really alone in the room: the apparent members of the orchestra are really robots, and the people in the audience are puppets, and that the sound comes from a tape. It is not the case that all you do is to revise some background assumptions, leaving the phenomenal quality of the experience unchanged. Even though there is something identical in the “what it is like,” the subjective aspect in the consciousness involved is radically changed: the subjective aspect of the experience changes from the plural to the singular.

In the case of individual emotions, we are used to the idea that emotional episodes have qualitatively different parts (an extreme example is Kübler-Ross’ (Kübler-Ross & Kessler 2005) analysis of the “five stages of grief”). There is no reason to think that just because individuals having such an emotion actually go through qualitatively very different stages there is no one emotion at all. The same point can be made with regard to shared emotions: Just that the composer’s part in the shared feeling of joy is wild exuberance, while the members of the audience’s part is calm contentment does not mean that there is no overall shared feeling of joy. The differences between the feelings may reflect differences in the underlying particular concern. But just as the concerns have a part-whole-structure (each participant’s concern is with his or her part as his or her part, *and thus with the whole in terms of a shared concern*), so has the feeling.

Corporate emotions

Shared feelings are feelings had *by individuals*, not feelings had by *a group*. Thus any account of shared feelings may seem unsuited to make the case for the assumption of *corporate* emotions. The relation between a shared feeling and a genuine corporate feeling seems to be the same as between a genuine group intention and a joint intention: the joint intention is shared between the individuals, and is thus at the individual level, not at the group’s.

List and Pettit (2011) have made this point rather forcefully concerning the relation between shared attitudes and group attitudes, arguing that shared attitudes are really *distributive* facts about the single participating individuals, while group attitudes are genuinely collective in that they are, in a certain sense, autonomous from (and discontinuous to) the attitudes of the participating individuals, though they supervene on those attitudes, and on the aggregation function. List and Pettit seem to think that intentions and

¹ Salmela (in personal communication) agrees on the suggested part-whole-structure of affective concerns, but he claims that this does not necessarily carry over to experience, or feeling. My view is that concern essentially involves consciousness; concerns imply the sort of sense of relevance ascribed to consciousness outlined earlier in the text. In most cases, the consciousness involved in concern is *conscious concern*, and thus (non-thematic, non-objectifying) consciousness of the concern at stake, including its structure.

beliefs can be a group's, but not affective attitudes. But why not think that in a group in which it is accepted that wherever this is possible without running into a discursive dilemma, the majority of the members' attitude counts as the group's attitude, and if the attitude in question is an affective attitude, the group thereby has the majority's affective attitude? The answer seems to be that while a group can be organized such as to operate on certain assumptions and on certain goals, it is not possible to make groups "feel" in a certain way. There is no "autonomous" center of consciousness over and above the heads of the participating individuals in List's and Pettit's sense of the "autonomy" of the group agent. But as List and Pettit show themselves in the fifth and ninth chapters of their book, the autonomous group mind presupposes, under most empirical circumstances, *identification* of the participating individuals with the group mind. It is only if agents are disposed to somehow *incorporate* the group's attitude in their deliberation *as their own* that group agency is stable. List and Pettit are rather vague about the question of what exactly identification, in this context, is supposed to mean; I submit that plural pre-reflective self-awareness is the answer to that question.

It is true that collective consciousness is not consciousness that is autonomous with regard to the consciousness of the participating individuals in the way some group's intentions and judgments are. However, it would be a mistake to conceive of plural self-awareness as distributive; rather, it joins the participant to a mental whole. Plural self-awareness of shared affective concerns is not anything single individuals have for themselves, distributively; it is something they have *together, collectively*, and that unites them to a self that is plural rather than singular. In the sense of plural selfhood, corporations can have emotions, and they can have emotions in terms of phenomenal states, or feelings.

Even if the philosophical worries can be dispelled, one problem remains: what about the evidence from experimental philosophy? Remember Knobe and Prinz's result that ascriptions of feelings to groups are not backed up by ordinary intuition. It is certainly true that this is not per se a philosophical argument; common sense may not always be right, and a revisionary metaphysics of group consciousness may be necessary on philosophical grounds. Yet it is certainly uncomfortable to argue for a position that seems to be in so fundamental a disagreement with ordinary intuitions about the nature of corporations. In that respect, however, I think that more recent work on the matter shows rather convincingly that the jury is open on the question of the folk psychology of corporations, to say the least. The following are only a few reassuring arguments and findings. Arico (2010) points out an important problem in Knobe and Prinz's study. Knobe and Prinz showed that the majority of people find statements such as "Acme Corp. is feeling upset," "Acme Corp. is feeling regret" to sound "weird," but judge statements such as "Acme Corp. is upset about the court's recent decision," "Acme Corp. regrets its recent decision" to be "natural," concluding that it is really the element of "feeling" which people are disinclined to attribute to corporations. However, the difference that really makes the difference may well be the amount of contextual information given in the two kinds of statements. Perhaps the "feeling" version would have been found much more "natural" if

some information had been given as to what the ascribed feeling was all about. Perhaps folk psychology is not so averse to the idea of collective consciousness after all (cf., Arico, Fiala, Goldberg, & Nichols, 2011).

More importantly, Huebner, Bruno, and Sarkissian (2010) have carried out philosophical experiments providing strong evidence “that the intuition that there is nothing that it’s like to be a collectivity is culturally specific rather than universally held,” and that it is in fact “a product of Western cultural heritage.” Huebner et al. (2010) compared experimental results from the US with results from Hong Kong, and even though Hong Kong may be considered highly westernized, a striking result is that the difference between the inclination of ascriptions of phenomenal states to individuals and to collectives was much lower in Hong Kong than in the US. The strong disinclination to ascribe phenomenal states to “Acme Corp.,” as found by Knobe and Prinz, may just reflect an obvious fact: in the way “we” conceive of the role of business companies in our lives, we do not assume that people identify with their corporations in such a way as to be plurally self-aware of affective business concerns. Or, to put it more colloquially: we *are* not the company for which we work. As far as this fact about the social role of corporations in our lives is true, it may well be that talk of corporate emotions is just corporate bullshit. But this is a question of culture, not a question about the metaphysics of the mind. *Our* corporations may not be the kind of group that can have emotions. But this does not prove against the possibility of genuine corporate emotion.

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Chapter 2

How we feel: understanding everyday collective emotion ascription

Margaret Gilbert

University of California, Irvine

In everyday life people frequently ascribe emotions of various kinds to “us” or “them.” Here are some examples of the kind of statement I have in mind:

We are very excited!
We feel terrible about what happened.
We feared the worst.
We kept hoping things would get better.
We are truly angry.

Those who say such things may sometimes intend them to be elliptical for “We are both so excited!” or “We are all so excited!” and so on. I take it, however, that much of the time what is intended by the speaker is what seems to be intended: the ascription of an emotion to *us*, not to “me, on the one hand, and him, on the other” or the like.¹ For the sake of a label I refer to such statements, under the latter interpretation, as *collective emotion ascriptions*.

To which presumed states of the world are collective emotion ascriptions intended to refer? The easy answer is that “We are very excited,” refers to our being very excited, and so on. The question of this paper is: Can we go further than this unexceptionable but unhelpful explanation? In other terms, can we say more about *collective emotions* as they are conceived of in everyday thought and talk?² After some preliminary remarks intended both to clarify and justify the question, a positive answer is offered, and some consequences of the existence of collective emotions according to that answer are considered.³

¹ I take this to be the default interpretation but there is no need to argue that point for present purposes.

² Thenceforth my use of the phrase “collective emotions” and the like is intended to be short for “the referents of everyday collective emotion ascriptions.”

³ I have previously discussed collective emotions in several places including Gilbert (2000), focusing on collective remorse, and Gilbert (2002), focusing on collective guilt feelings. This paper offers a more general focus. Given space limitations I concentrate on the exposition of my own position. See Salmela (2012), for some other perspectives.

Preliminaries

Collective emotions and collectivities

Consider the following statements:

- The football team is so excited!
- Our family feels terrible about what happened.
- The department feared the worst.
- The couple kept hoping things would get better.
- The union was very angry.

How do these relate to the previous list? One who says “We are excited,” if asked who “we” are, may well say, for instance, “the football team.” More generally, he (or she) may invoke a familiar *collectivity concept*. Nonetheless, it is possible to say of oneself and one or more other people “We are excited” without there being any familiar collectivity concept to invoke in answer to the question. Thus, if asked who “we” are, one’s best answer may be “she and I,” or “These people and I.” Or one may best say something like “the people in this room,” “those living in this territory,” and so on. Here one specifies the people in question by reference to some quality they share. For this reason the items in the first list can be taken to exemplify the most basic type of collective emotion ascription.

The point just made does not speak to the question whether a collective emotion is always the emotion of a collectivity, whether or not that collectivity is of an already recognized kind. It may seem, indeed, that if I can properly ascribe an emotion to us, then we constitute a collectivity, a collective “we.” I return to this point in due course.

Collective emotions and descriptive social science

One may wonder how useful the pursuit of the question of this paper can be for social scientific purposes. To amplify this concern I distinguish between the descriptive and the interpretive aspects of social science.⁴ Roughly speaking, descriptive social science attempts to describe how things are in the social world; interpretive social science attempts to describe how the participants in that world think about it. To that end interpretive social science needs to understand the participants’ concepts.

How things are in the social world includes the thoughts and concepts people have, so descriptive social science has a broader purview than interpretive social science. Within descriptive social science, however, one can always ask: Are these thoughts *true*? Do these concepts *apply* to anything in the world?

If the concepts with which people operate fail to apply to anything in the world, they may still be of great interest. Indeed, their existence will call for explanation. They will not, however, be acceptable for descriptive purposes that go beyond those of interpretive social science (cf. Weber, 1964).

⁴ Here and in what follows I have in mind those social sciences that focus on the human as opposed to the broader animal world.

One may wonder about the utility of understanding collective emotion ascriptions for the purposes of descriptive social science in particular. One will do so if one holds that, considering human beings and the groups they constitute, only individual human beings can have emotions. I now briefly consider what may prompt this thought.

Collective emotions, individualism about consciousness, and the emotion thesis

Suppose one accepts the thesis I shall call *individualism about consciousness*. This thesis runs roughly thus: Considering individual human beings and the groups they constitute, only the former are conscious or have their own states of consciousness or phenomenological states, where a group's state of consciousness would be independent of the states of consciousness of its individual members. This, it may be alleged, means that only individual human beings can have emotions.

Whether or not the point about emotions follows from individualism about consciousness depends on what emotions are. Many will find appealing *the emotion thesis*: To have a specific emotion is at least in part to be in a particular state of consciousness. That is, for a particular being to have a specific emotion is for *that very being* to be in a particular state of consciousness. Given the emotion thesis, it would seem that for a group to have an emotion would be for there to be an associated state of consciousness of its own.

Given both the emotion thesis and individualism about consciousness, it appears that collective emotions are impossible. Some such line of reasoning may have led such philosophers as Christopher Kutz (2001) to dismiss the possibility of, as he puts it, “collective affective states” (p. 196).

Evaluating the emotion thesis

Is the emotion thesis true? One can see this as essentially a matter of definition of the word “emotion.” Definitions can be *reportive*—answering, for instance, to current everyday usage—or *stipulative*, in which case the definition is likely to be geared to a specific purpose.

Suppose one seeks a reportive definition of “emotion” that is sensitive to everyday usage. Suppose, further, that one accepts individualism about consciousness. Then the emotion thesis is hard to sustain in light of the prevalence of collective emotion ascriptions—statements that ascribe emotions to *us* rather than to me, on the one hand, and you on the other.

People who make collective emotion ascriptions do not generally see themselves as speaking in a fanciful or humorous fashion. There are no implicit scare quotes as in “We feared the worst,” or, for that matter “We feared the worst.” They cannot therefore be discounted on such grounds.

If individualism about consciousness is correct, and if you and I can have an emotion that is ours, rather than mine, on the one hand, and yours, on the other, then it is not the case that one must be in a particular state of consciousness oneself in order to have an emotion. That is to say, the emotion thesis is false.

This does not rule out the appropriateness for some purposes of a *stipulative* definition of “emotion” that allows for the truth of the emotion thesis. If one’s focus is on the emotions of individual human beings in particular, it may be reasonable stipulatively to define an “emotion” as something tied to its possessor’s possession of a particular conscious state. I speak cautiously here, since the extent to which the emotions of an individual necessarily involve his or her conscious states is a matter of debate.

People may tend to assume that the emotions of individuals are centrally a matter of sensation-like conscious experiences or, as I shall label them, *feeling-sensations*. Thus one who, as we put it, “feels remorse” may be presumed to experience “pangs” of remorse. One who says “I was jealous” may be supposed to have experienced the “sting” of jealousy. One who is afraid may be assumed to feel the “cold hand” of fear. And so on.

Even if one is not inclined to assume that something sensation-like is central, one may assume that to each emotion corresponds a specific phenomenological state, so that, for instance, to be afraid is to be in the grip of a particular kind of experience, or, as I shall put it here, in the grip of a particular *feeling*.

Among philosophers who have focused on the emotions with reference to the individual case, however, several have argued that particular feeling-sensations or, more generally, feelings, are not central to the constitution of a given emotion. They may not even be considered essential.

Focusing on the discourse of everyday life, John Dewey (1985, pp. 16–17) writes:

When we say that John Smith is very resentful at the treatment he has received, or is hopeful of success in business, or regrets that he accepted a nomination for office, we do not simply, or even chiefly, mean that he has a certain ‘feel’ occupying his consciousness. We mean he is in a certain practical attitude, has assumed a readiness to act in certain ways.

Several of Dewey’s various statements about what “we mean” in the discussion from which I quote refer exclusively to dispositions to act in certain ways. Theorists writing more recently have also questioned the centrality of both feeling-sensations and feelings to the emotions of individuals.⁵

There is no need to take a stand on this issue for present purposes. I mention it simply to show that even in the case of individuals the role of particular conscious states in the constitution of emotions has been subject to debate.

A pressing question of independent interest

Evidently the nature of emotions in the individual case has long been discussed, sometimes in an attempt to track the referents of everyday ascriptions of emotions to individuals. The project of seeking a general reportive definition of emotion that covers *both* ascriptions of emotion to individual human beings *and* collective emotion ascriptions has

⁵ Shaffer (1983, p. 171), for instance, envisages—though he does not ultimately endorse—an analysis of emotion purely in terms of beliefs and desires. For Nussbaum (2001), emotions are forms of evaluative judgment.

not received such attention. Nor has the question: To what states of affairs “on the ground” do everyday *collective* emotion ascriptions refer?

The last question is of independent interest. One may not be concerned to develop a general reportive definition of the kind just mentioned. One may simply want better to understand everyday collective emotion ascriptions. Apart from anything else, they may direct one to a significant phenomenon whose existence may otherwise be overlooked. Going back to concerns mooted earlier, they may direct one to a phenomenon that descriptive social science, for one, will ignore at its peril.

Summative accounts: a caution

Before entering the question of the referent of collective emotion ascriptions or, more briefly, *the nature of collective emotions*, I should emphasize the following.

Suppose one assumes that everyday collective emotion ascriptions do not implicitly deny individualism about consciousness. *This does not imply any particular account of collective emotions*. Nor can any account of the referents of everyday collective emotion ascriptions beyond the purely trivial be taken for granted.

In particular, if someone says “We are very excited about this news!” when this is not elliptical for “Each of us is very excited about this news!” one cannot assume without argument that, nonetheless, the situation he is referring to just is each one’s being very excited about the news in question, or even that it includes that situation. In technical terminology I have used elsewhere, one cannot assume without argument the correctness of a *summative* account of collective emotions. (Gilbert, 1989, ch. 5, takes the term “summative” from Quinton, 1975.)

There is more than one type of summative account that might be offered. One is the simple account according to which a group has emotion E if and only if each of its members has emotion E. Another is that a group has emotion E if and only if each member has emotion E and this is common knowledge in the group. More complex summative accounts may also be offered. (Gilbert, 1989, ch. 5, considers several potential summative accounts of collective *belief*.)

That collective emotions can be given some form of summative account may be a natural assumption. (It finds expression in, e.g., Quinton, 1975.) That does not mean that the correct account is a summative one.⁶ Any account of collective emotions needs to be justified. More precisely, one needs to justify one’s account of the referents of everyday collective emotion ascriptions by appeal to the kinds of context in which such ascriptions are commonly made and by the implications that those who make them attribute to them.⁷ This will be my procedure in what follows.

⁶ For a lengthy rebuttal of summativism in relation to collective belief, see Gilbert (1989, ch. 5). For a briefer version, see Gilbert (1987).

⁷ Something that is likely to have little if any evidentiary value is asking people to give off-the-cuff judgments as to what they mean by the collective emotion ascriptions they make. Though there is surely a sense in which they “know what they mean” by what they are saying, it is unlikely that they will be able quickly to come up with an accurate account of the type sought here.

Toward an account of collective emotions

Some bases for a collective emotion ascription

Consider the following imaginary discussion:

Alice (speaking excitedly to Ben and Chris): “Stella won the prize!”

Ben (also in an excited tone): “Wow!”

Chris: “That’s terrific!”

This might be extended as in:

Ben: “She’s worked so hard for this!”

Alice: “She really deserves it.”

Chris: “It’s definitely matter for celebration!”

There may also be further related non-verbal behavior such as:

Alice smiles broadly.

Ben and Chris exchange a “high five.”

In any of these increasingly complex contexts Alice, Ben, or Chris may well feel comfortable making the collective emotion ascription: “We are excited by the news about Stella.” Indeed, at least on the face of it, any one of them would be right to say this.

No one need actually say “We are excited,” for it to be true. Nor would the involvement of words be necessary to justify the collective emotion ascription, given the initial announcement or some other happening that serves the same purpose. For instance, Stella comes into the room carrying the prize. The occurrence of appropriate non-verbal behavior would be enough.

What general description should we give of contexts such as these that suffice to establish a particular collective emotion? It will be easier to say with some further data in mind. The data on which I focus here concern the ways in which two or more of the people in question might speak to one another after the establishment of their collective emotion. I call these people the *parties* to the collective emotion.

Behavior in the context of collective emotions

Suppose that on the basis of verbal and non-verbal interchanges such as those just envisaged, Alice, Ben, and Chris understand themselves to be collectively excited about Stella’s prize. Alice, Ben, and Chris remain together and talk about something else. Alice suddenly looks gloomy and angrily bursts out “Why did Stella have to win *another* prize!”

Such an outburst is clearly not expressive of excitement over Stella’s prize. It is therefore not in the spirit of the collective emotion in question. It may well surprise the others. They are likely to act, however, as if more than a failed prediction is at issue.

They may well feel that Alice is doing something wrong: that Alice *should* not be speaking like this. Indeed, they may well feel that she *owed* it to them not to do this. They may, in other terms, feel *offended against*. Thus Ben or Chris might well say, in a rebuking tone,

“How can you say that?” or simply “*What?*” They will take it for granted that they have *the standing to rebuke* Alice for failing to act in ways expressive of excitement over Stella’s prize.

There is an important family of concepts involved here. To introduce some elements not yet in play in the foregoing discussion, if one has the standing to rebuke someone for doing x, there is some other action that one has *the standing to demand*, one precluded by one’s doing x.⁸ If one has the standing to demand some action, then one has a *right* to that action, and the addressee of the demand has an obligation to perform it, a *directed obligation*, directed toward oneself. In terms previously invoked, this person *owes* one the action. (For further discussion with an emphasis on rights, see Gilbert, 2012.)

A satisfactory account of collective emotions will account for the fact that the parties have the standing to rebuke one another for behavior that is not in the spirit of the collective emotion, and all of the accompanying standings, rights, and obligations just mentioned. To put the point more briefly: an adequate account of collective emotions generally will satisfy *the obligation criterion*.

This immediately shows that both the simple summative account of collective emotions and the summative account with common knowledge are inadequate. For the conditions they posit do not suffice to satisfy the obligation criterion.

It also suggests that the establishment of a collective emotion involves something like an agreement. (Gilbert, in press, discusses the connection between collective or “shared” *intentions* (what we intend) and agreements.) As to the nature of agreements themselves, there is reason to think that at the core of any completed agreement or promise is a special type of commitment—a *joint* commitment. (See, e.g., Gilbert, 2006, ch. 10; Gilbert, 2013b, ch. 13.)

The same goes for many central social phenomena other than agreements and promises. These include collective goals, beliefs, and values. (On collective goals see, e.g., Gilbert, 2006, chs. 6 and 7; on collective beliefs see Gilbert, 1989, ch. 5, also Gilbert, 2013b, chs. 6 and 7; on collective values see Gilbert, 2013b, ch. 8.) All involve standings, rights, and obligations of the sort at issue in the case of collective emotions. Given these points, the idea of an account of collective emotion in terms of joint commitment suggests itself.

A joint commitment account of collective emotion

In what follows I first set out the account I have in mind, then explain the technical terms involved. The core of any joint commitment account of collective emotion is of the following general form, where “E” stands for the emotion in question:

Persons X, Y, and so on, (or: members of population P) are collectively E if and only if they are jointly committed to be E as a body.

Thus a joint commitment account of collective excitement, for instance, would run:

Persons X, Y, and so on, are collectively excited if and only if they are jointly committed to be excited as a body.

⁸ There are some exceptions to this that are irrelevant here.

There are several technical terms to explain here. The first is what I mean by “joint commitment.” I discuss it copiously in, e.g., Gilbert, 2006, ch. 7, and in Gilbert, 2013b, especially in ch. 2. What follows should suffice for present purposes.

I start by saying something about the general notion of commitment at issue. To *be committed* to doing something, A, in the broadest applicable sense is to *have sufficient reason* to A, where this means that one would be wrong not to do A, all else being equal.⁹ In other terms, one would be acting in error if one did not do A. Thus being committed is a normative rather than a psychological matter.

It is important to emphasize that in saying one would be wrong or be acting in error if one did not A, I do not mean that one’s action would, necessarily, be *morally* wrong. On some plausible conceptions of moral wrongness it may not be.

An example of the relevant kind of error in action is that made possible by a personal decision, such as Dina’s decision to call Joe this evening. I take it if that Dina makes this decision, and does not later change her mind, she is committed, in the sense just described, to calling Joe this evening. (For further discussion of the normativity of personal decisions see Gilbert, 2013a.)

Joint commitments in my sense have important affinities with personal decisions. Centrally, in making her decision Dina *committed herself* to calling Joe this evening. In doing so she created what I refer to as a commitment *of the will*. In this case the commitment is a *personal* one. In such cases—as I define them—the committed person unilaterally brings the commitment into being and can rescind it unilaterally by changing his mind.

In order *jointly* to commit them all, it is not enough for each of those involved to make an appropriate personal commitment. That would indeed involve all of their wills. For joint commitment, however, their wills must be involved in another way.

In the *basic case* of joint commitment, on which I focus here, all of those involved must express their readiness, in conditions of common knowledge, *together to commit them all* in some particular way. As all understand, *these expressions of readiness, in conditions of common knowledge, suffice to commit them all*: they are now *jointly committed*. Once they are jointly committed, the concurrence of each is required for the joint commitment to be rescinded. No one party is in a position unilaterally to rescind it.¹⁰

Things would be different if each had made a personal commitment of some kind. For example, suppose each had decided to go for a walk with the other on the weekend. Even given common knowledge of these personal decisions, each would be in a position unilaterally to free himself from his self-imposed commitment. He would not need the others’ concurrence.

⁹ I use “have sufficient reason” in the technical sense indicated. Others may have used the phrase with a different meaning. For further discussion of what I have in mind and some contrasting ideas see Gilbert (2006, ch. 2).

¹⁰ In *non-basic* cases there is a background basic joint commitment to the effect that a given person or body is in a position to impose further joint commitments on them all. For some discussion see, e.g., Gilbert (2006, ch. 8).

As noted earlier, I have argued elsewhere that the core of any completed agreement is a joint commitment. More specifically, it is a joint commitment to endorse as a body a particular plan of action. (See, e.g., Gilbert, 2006, ch. 10; in press.) In this case there is a preamble, often verbal, making clear what plan of action is proposed, as in “Shall we go to the meeting?”; “Yes, let’s.” Importantly, the expressions of readiness necessary for joint commitment can be made non-verbally, and their exchange may well not constitute an agreement strictly speaking. References in many fields to “tacit” or “implicit” agreements may be responsive to the phenomenon of joint commitments that do not quite amount to agreements.

When two or more people are jointly committed in some way, the parties are committed, as one, to a single cause. By virtue of this, each of the parties is individually committed to act in ways appropriate to the fulfillment of the joint commitment by all.

The content of every joint commitment is of the form indicated earlier: the parties are jointly committed to do something *as a body*—in a broad sense of “do.” This formulation is to be understood in a particular way. Focusing on the case of a collective emotion, it means roughly this: the parties are jointly committed to emulate, by virtue of their several actions and utterances, a single subject of the emotion in question, in relevant circumstances.

As to the mode of emulation, what is at issue is each party’s overt actions—each party’s *public performance*. Use of the term “performance” may help to emphasize the importance of aspects of behavior such as manner and tone. The qualifier “public” indicates that *what goes on in each mind and heart* is not at issue with respect to what the parties are committed to. In the case of collective excitement over some happening, then, the parties are to emulate a single subject of excitement over that happening by virtue of the combination of their public performances.

I shall say that a joint commitment *instructs* the parties to act in a certain way if it is manifest *from the content* of the joint commitment that the parties must act in that way if they are to fulfill it. It is evident, then, that the joint commitment constitutive of a case of collective excitement does not instruct the parties to be personally excited over the happening in question. In other terms, no one of the parties need be able truly to say “I am excited over...” with regard to the happening in question.

Again—assuming this is a different point—the joint commitment constitutive of a case of collective excitement over some happening does not instruct the parties personally to experience a “thrill” of excitement or any particular feeling-sensation or feeling.

These aspects of the joint commitment in question may be just as well, insofar as human beings may not be able to conjure up personal emotions, feeling-sensations, or feelings at will. It may be pointed out that one can often bring these things about by various means. Be that as it may, the envisaged joint commitment does not instruct one to take any such steps, as long as one’s public performance, including its “expressive” quality, is adequate.

I take it to be intuitive that if, say, Alice, Ben, and Chris are jointly committed to be excited, as a body, over Stella’s win, then by virtue of that fact Ben and Chris have the standing to rebuke Alice for angrily bursting out “Why did Stella have to win *another* prize?,” given that her outburst does not conform to the pertinent joint commitment.

Again, each has the standing to demand conforming behavior of the other, and so on. A joint commitment account of collective emotion, then, satisfies the obligation criterion. This is an important argument in favor of such an account.¹¹

A joint commitment account also predicts that given the responsiveness of the parties to their normative situation, and given a case of collective excitement, for instance, then, all else being equal, the parties are likely to behave and talk, in appropriate circumstances, as if they were of one—excited—mind. This is something we would expect once it has been established that the parties in question are collectively excited.

A joint commitment account of collective emotion also accords with earlier considerations on the ways in which a given collective emotion may be established, allowing for a particular interpretation of the scenarios envisaged earlier. In particular, they suggest that each party is, at a minimum, expressing his readiness jointly to enter the relevant joint commitment.

In saying that the *core* of any joint commitment account of collective emotion will be a joint commitment with the content indicated, I meant to allow for complex joint commitment accounts of collective emotion that add further conditions to this core. That said, an account that has only the core condition specified has much promise. I shall focus upon it in what follows, referring to it for present purposes as, simply, *the joint commitment account* of collective emotion.

In addition to the virtues just noted, this account accords with and, indeed, helps to explain an intuitive idea mooted earlier: if one can properly ascribe an emotion to us, then we constitute a collectivity. For it can be argued that any set of jointly committed persons constitutes a collectivity or social group in a central sense of the term. (See, e.g., Gilbert, 2006, ch. 8.) Thus the joint commitment constitutive of a collective emotion makes a collectivity of the parties, whether or not they constituted a collectivity before the establishment of this joint commitment.

It is not possible to offer a full elaboration of the joint commitment account here. Enough has been said, however, to facilitate consideration of the relationship of collective emotions on the joint commitment account to the personal emotions of the parties. This will be my focus in the rest of the chapter.

Collective emotions and the personal emotions of the parties

If there is a particular collective emotion what, if anything, does that tell us about the personal emotions of those involved? For present purposes a *personal* emotion is the emotion of a particular human being: Joe's anger, Phyllis's sadness, and so on.¹²

¹¹ Though I cannot enter the pertinent discussion here, it is possible that no other kind of account can satisfy this criterion. See Gilbert (2012) for further discussion of this point and of the relationship between joint commitment and having the standing to make pertinent demands and rebukes.

¹² I include here, therefore, such emotions as what I have referred to elsewhere as the “membership guilt” of an individual human being. See, e.g., Gilbert (1997).

I shall focus on a somewhat more limited question: If there is a particular collective emotion, can we infer that all or some or at least one of the parties has *the corresponding personal emotion* or at least had it when creating the collective emotion? By my definition, if a collective, C, has emotion E, then a given member of C with emotion E* has *the corresponding personal emotion* provided that the correct description of E and E* is identical to the applicable level of detail.

To illustrate: suppose we collectively feel guilty over our waging a particular war of aggression. If I am one of us, what would the corresponding personal emotion be for me? As I am defining this, the corresponding emotion would be my feeling guilty *over our waging that particular war*. It would not be my feeling guilty over my participation in the war, supposing that I did participate in its waging, or my feeling guilty over my membership in this particular group, to cite two other possibilities. One way of bringing out the difference is to say that these other emotions have a different *object* from the collective emotion.

There has been discussion as to whether it would make sense for *me* to feel guilty over *our* waging a war (Jaspers, 1947, pp. 80–81, poignantly expresses doubt on this point). After all, I didn't myself wage it—not me, myself, alone. Nor need I have actively participated in its waging. Perhaps I did not even know, at the time, that it was being waged. I have argued elsewhere that it does make sense for me to feel guilty over our waging a war, by virtue of being one of us (Gilbert, 1996, ch. 16, 1997, 2013b, ch. 3). Importantly, my feeling guilty over our waging a war does *not* presuppose that I bear any *personal* guilt for the war. The same goes for remorse, or pride.

If there are collective emotions such that there *is* no intelligible corresponding personal emotion, then collective emotions are not always associated with the corresponding personal emotions—assuming that an unintelligible emotion is also an impossible one: someone who purported to have that emotion would have to be wrong.¹³

I shall consider cases where the corresponding personal emotion is possible. I start with the situation prior to the collective emotion's existence.

In practice it could often be the case that the corresponding personal emotion of at least one party plays an important role in the genesis of a collective emotion. Thus, in a scenario such as the first one considered earlier, one or more of the speakers may well be excited over Stella's win. Nonetheless, there is no logical necessity that those who together co-create a given collective emotion have the corresponding personal emotion before or while they are doing so.

Though it is logically possible that a collective emotion can arise without each of the parties first personally having the emotion in question, one might wonder if this is a possibility in practice. In particular, one might wonder why anyone would be ready jointly to commit himself with others to emulating one with a certain emotion when he did not

¹³ An example of an unintelligible emotion would be one person's purported pride over the action of another person in which he had had no involvement. “How can *he* be *proud* of that?” one might think.

have that emotion himself. In fact there are many possible reasons, some of which I note briefly here.

An important possibility is that one's helping to create a particular collective emotion is a practically wise thing to do. For instance, it may be that bringing a given collective emotion into being will help the parties move forward in some collective endeavor in which one hopes they will succeed. Thus, if we are collectively excited about our prospects in the upcoming game then—irrespective of our personal feelings—we may be more likely to win. For it will be incumbent upon each of us to act in ways expressive of the collective emotion, such as continuing to train for the event and foregoing activities likely to impede our success. No one should let his actions express the attitude "We are not going to win, so why bother...?"

Again, there may be a social norm in one's society requiring the formation of certain collective emotions, to which one is responding, without reference to one's personal emotions with respect to the matter at hand. For instance, it may be incumbent upon a person's friends to be collectively excited on hearing about her success. Such a norm would seem to be of practical utility, being apt both to reward individuals for their successes and to help keep in check some of the more painful human emotions connected with such successes.

Finally—in this particular list—a dominant or threatening outsider to this particular group may make it clear that any collective emotion other than one this person indicates will not be tolerated by him. For instance, the others must collectively regard him with awe. I do not mean to endorse such coercive behavior, but to point out that someone may be ready to capitulate and help to form the relevant collective emotion with others, though he lacks the corresponding personal emotion. (On the relation of coercion to the possibility of joint commitment and related matters see, e.g., Gilbert, 2006, ch. 10.)

Suppose that, in a given case, the kinds of expression of readiness required for the establishment of a collective emotion are made in the absence of the correlative personal emotions. This does not mean that there is something "fake" about these expressions. No one is pretending to feel the personal emotion in question. Rather, each is indicating to the others which collective emotion he is ready to establish. Nor does it mean that the resulting collective emotion itself is "fake."¹⁴

Turning now to the situation in which a given collective emotion has been formed and is functioning properly, must the corresponding personal emotions come into being alongside the collective emotion? On the face of it, they need not. It will be good, however, to look at a particular case in some detail.

¹⁴ People can together fake a collective emotion. As when, in a new scenario, Alice says to Ben and Chris as Stella approaches, "I know what each of us is thinking, but let's pretend we're overjoyed that she's won the prize!" Here she proposes that they participate in a bit of *collective pretense*. In another version of this, Alice is not so explicit about what is going on; she winks at Ben and Chris before she launches into a show of excitement over Stella's prize, in which the others knowingly join.

Suppose that Chris was originally disappointed by Stella's prize, and only said "That's terrific!" in order to curry favor with Alice and Ben. Once the collective emotion of excitement has been formed, he has accordingly joined in all the smiling and hailing of Stella that is now incumbent on the parties. It seems that he might do this without himself being excited about Stella's win. In case this seems questionable, let us consider the situation in more detail.

As far as his public performance goes he is acting pretty much exactly as he would were he excited about Stella's win. Here we can set aside considerations relating to pertinent demands and rebukes he might deliver to or receive from the others. On the basis of his behavior, an observer might well judge that Chris is excited over Stella's win. Yet what underlies his so acting does not seem to be of the right type for us to say that this judgment would be correct.

Whatever precisely the right foundation would be, it would not seem to be a joint commitment with certain others to emulate as far as possible one who is excited, by virtue of their several actions and utterances. In other terms, if that joint commitment, and that alone, is what drives Chris's excited behavior, he could yet not truly say "I, personally, am excited about Stella's win."

That is not to say that he could not be personally so excited. It is just that the existence of the complex comprising the pertinent joint commitment and behavior on his part that is solely responsive to it does not entail that he, personally, is excited about Stella's win. It seems, then, to be an empirical question whether, in the context of a given collective emotion, however well-functioning, people tend to develop the corresponding personal emotions.

Whether or not the corresponding personal emotions are triggered when a given collective emotion is present, other personal emotions may well be triggered, as in the following example. A crowd of people has assembled to listen to a local politician, Rose Smith. Her associates cheer excitedly when she speaks, hoping to whip up some more general enthusiasm. They succeed, insofar as, in due course, the crowd members have mutually expressed their readiness jointly commit with all present to emulate a single subject that is excited to hear Smith speak, and this is common knowledge. The crowd members are now collectively excited. Accordingly they clap and cheer, call out Smith's name with enthusiasm, and so on. By now, some members of the crowd are personally excited about Smith's candidacy. Many are personally excited, rather, about being part of a cheering crowd.

It may happen that as he plays his part in the collective enactment of excitement over Smith's candidacy, Jake's feeling-sensations, or other conscious states, are those typical of an excited person, though it is not correct to say that he is himself excited over Smith's candidacy, or over being part of a cheering crowd, or anything else. It is his playing his part in the collective excitement, acting on the basis of the constitutive joint commitment that has triggered his feeling-sensations of excitement. Precisely how we should categorize such feelings is a question I set aside here. Suffice it to say that, if there are feeling-sensations of this kind, it is worth understanding their etiology and exploring their consequences. (See Gilbert, 2000, 2002, for further discussion.)

Conclusion

Earlier I referred to the emotion thesis: one with a certain emotion is in a particular conscious state, one that is, if you like, criterial for that emotion. If a collective emotion is, at base, no more than a joint commitment with a particular type of content, that will be a strike against the emotion thesis—if one is looking for an account of emotion that applies both to the emotions of individuals and to collective emotions.

One need not choose to look for such a generic account. One may prefer to treat the emotions of individuals and collective emotions as separate areas of inquiry (cf. Gilbert & Pilchman, forthcoming). Whatever one's preference in this respect, and however one prefers to pursue one's goal, it is important to understand our everyday collective emotion ascriptions.

I have argued in favor of an account of the referents of such ascriptions that has an appropriate joint commitment at its core. The situation then picked out will be a consequential one for all of the parties, whatever their personal emotions. In particular, each will be committed to act in appropriate ways and obligated to the others to do so. Everyone, participant or observer, will have a new basis for predicting what each of the parties is most likely to do. Collective emotions on any joint commitment account are highly consequential social phenomena.

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Chapter 3

Emotions and the extended mind

Jan Slaby

Freie Universität Berlin

Extended mind theory (henceforth EM), a currently much discussed approach in the philosophy of cognitive science, revolves around the claim that some of our mental processes are physically realized in part by structures or processes in our environment (Clark, 2008; Clark & Chalmers, 1998; Menary, 2010). For example, tools such as computers or notebooks are said to literally extend the mind on condition that the agent reliably “couples” to them in performing cognitive tasks. Coupling is understood as a form of reciprocal causal interaction with the external item that reliably leads to enhanced cognitive performances—ones that the agent on its own would be incapable of carrying out. Further candidate mind extensions are various features of embodiment, forms of agency—such as action that adaptively re-structures one’s epistemic environment, certainly language, and even social institutions such as the legal system (see Gallagher & Crisafi, 2009).

So far, EM theorizing has been silent with regard to emotions and affective states. Most proponents of EM assume a sharp divide between cognitive states and qualitative experiential states. While these theorists hold that all or most of what belongs to an individual’s cognition may be distributed widely within the technical and social environment, they consider *conscious experience* to be exclusively a matter of processes in the brain (Clark, 2009). Upon closer examination of a variety of typical human emotions and affects in their usual situatedness, this assumption seems premature. In fact, there are plenty of environmental structures that may function as *scaffolds* of emotional experience (Griffiths & Scarantino, 2009; Krueger, 2011; Wilutzky, Stephan, & Walter, 2011), and, as I undertake to show, this is the case even to such an extent that *qualitative* emotional experiences are enabled that would not be realizable in the absence of these environmental structures. Many of our emotional experiences contain an element of phenomenal fusion or coupling—in face-to-face interaction, in a person’s immersion in a group, or in the absorbed beholding of a work of art. Notably, collective emotions seem promising candidates for extended emotions: The affective dynamics pertaining to a group profoundly transforms the individual group member’s emotional experience. Could this process reach the point at which entirely *novel* emotional processes are constituted? This would be a case where goings-on on the group level would function as a phenomenal extension of an individual’s emotions.¹ It is the guiding question for the present

¹ See also Schmid (Chapter 1, this volume) and Krueger (Chapter 11, this volume).

chapter whether experiences of these kinds might be accommodated into a revised extended mind framework.

To the EM orthodoxy, the very idea of extended emotion will seem like a violation of basic assumptions. On the other hand, EM is in crucial respects inadequate in the eyes of phenomenologists, philosophers of emotion, and enactivists, despite the attractiveness of its founding idea (viz., that human minds are technologically and socially distributed instead of locked into individual skulls). EM has almost nothing to say about conscious experience—a dimension that is constitutive of minds like ours. In light of this, it is worthwhile to explore a potential revision of the EM framework so that it may encompass emotions and other phenomenal experiences.

My chapter starts with a characterization of the “gist” of human emotion in phenomenological and neo-existentialist terms. Next, I provide a sketch of the envisioned conception of extended emotion, making transparent some assumptions and the motivation behind it. The following section is devoted to align EM more closely with enactivism. The section ends with an initial attempt to make the transition from enactive to non-trivially extended emotion in terms of *phenomenal coupling*. In the last part, I provide a sketch of socio-normative scaffolding of emotion before I further elucidate phenomenal coupling, with a focus on intercorporeal interaction and affective atmospheres.

The gist of emotion

Try to think of a hypothetical being utterly lacking (the capacity for) emotion. What, at root, would this being lack? What is it about a robot or about Mr. Spock that sets them apart from us? I think John Haugeland (1998) sketches the way to an adequate answer when he characterizes computers as follows: “The trouble with artificial intelligence is that computers don’t give a damn!” (p. 47). *Giving a damn*, having something matter, genuine caring for something or someone—that is an excellent attempt at capturing, in a nutshell, something like the “essence” of emotion, or rather: of *emotionality* as the general capacity for experiencing distinct emotional states or processes. Haugeland’s answer comes to this: In a fundamental way, emotions endow our lives with *existential value*—they are both the ultimate sources and the situational manifestation of existential significance, the very dimension of meaning that is inextricable from a human life.² Having (the capacity for) emotion is having something matter to one in this quite basic, value-constituting sense.³

Haugeland’s answer can be spelt out as follows. Emotions are obviously *intentional* as we are usually emotional *about something*, at the same time they are in some fundamental

² For the sake of brevity, I don’t distinguish here—as Bennett Helm (2001) helpfully does—between the value-constitutive powers of emotionality in general and the value-tracking capacities of individual emotions. Solomon (1976) likewise advocates an account of emotion that stresses their value-constituting capacities.

³ In Slaby (2008a), I unpack Haugeland’s slogan in detail and use it as the linchpin of an encompassing “neo-existentialist” account of emotion; further partial articulations of my emotion-theoretic position are in Slaby (2008b) and Slaby and Stephan (2008).

sense *evaluative* as their objects are matters of non-indifference to us, and, importantly, in virtue of the preceding, they are intimately *self*-involving and *self*-owned: the capacity for emotion manifests and tracks not just any meaning, but *existential* meaning—things that matter specifically *to us*, issues *we are* involved in, matters from which we cannot detach without giving up something that is of utmost concern to us. This is also why emotions are not just contingently but constitutively involved with *agency*, insofar as an agent to whom things genuinely matter is *ipso facto*, barring contravening circumstances, motivated to act accordingly. Emotions either directly phase over into action or come with a strong inclination to act in line with their evaluative disclosure of the situation at hand.

In virtue of all this, emotions are among the fundamental “sources of the self”—they constitute the very dimension in which things *can* concern us or *be* an issue for us. Take a person’s emotionality away, and there’s nothing left that deserves to be called “self”—no valuing, no motivation, no agency, just a colorless plain condition. Emotionality consists in a fundamental, inseparable unity of evaluation, intentionality, agency, and self-involvement. This is the reason why neither cognitivism nor feeling theories about emotion can be right, and why a multi-component theory that views the components as separable elements cannot be adequate in more than a superficially descriptive way. Instead, at the center of emotion is a *sui generis* way of a person’s relating to the world: *affective intentionality* (see, e.g., Döring, 2007; Goldie, 2000; Helm, 2001; Slaby & Stephan, 2008).

With this inextricability of the dimensions of content and quality, emotions make a mess of the neat separation of the intentional and the phenomenal that is a default assumption in much of the current philosophy of mind. Emotions are intentional-phenomenal hybrids: *Giving a damn*—having things matter to you—is an intrinsically “hot,” phenomenal, hedonic, and action-oriented way of relating to the world.

But how might *this* possibly be extended? How can my self-involved caring about something be partly constituted by a process or structure “out there” in the world? This basic affective dimension seems to be exactly what qualifies some states as *my own*, and thus intuitively seems to be something “in me,” instead of something “out there.” Haugeland (rightly, in my view) thinks that *giving a damn*, what he also calls existential commitment, is the mark of the mental, it is what constitutes *underived* or *intrinsic* intentionality (see Haugeland, 1998, pp. 291–304). Only that which is under the scope of my existential commitment and thus participates in my concerned caring for my own being and for all that is relevantly associated with it, is genuinely owned, only then it genuinely belongs to me as a subject, and therefore can count as mental in an underived sense.

But to conclude from this subject-constituting power that all that belongs to one’s emotionality has to be “internal” in a spatial sense is to succumb to prejudice, namely, to the assumption that what is truly subjective just *has to* be physically inside the individual organism. This is far from evident. The crude, locational interiority or exteriority of an organism—a system that constitutively depends on high-bandwidth exchange with its environment—is not obviously the scale at which matters about the physical realization

of phenomenal subjectivity are settled (which is an empirical question that so far seems wide open, see Hurley, 2010).

Extending emotion—motivation and basic idea

To many, extended emotion will still seem an eccentric idea. Extended *cognition* is controversial enough, so talking about extending emotions might seem even more counter-intuitive.⁴

Exploring this possibility is relevant for two reasons. First, the strict separation of the cognitive from the emotional that is a premise of most current EM cannot be upheld. As we have seen, emotionality is not only integral to minds like ours, but it is also not separable from other kinds of mental state, such as perception or cognition. A theory of the mind that is silent about affectivity leaves out something essential about the mental as such and thus risks being fundamentally misguided. A strict separation of cognitive intentionality from affective experience seems problematic also in light of what research in the affective sciences indicates (see, e.g., Barrett & Bar, 2009; Damasio, 1999; Davidson, 2000).

The second reason is this: Current discussions of EM are often strikingly disconnected from the phenomenology of human mental life. Most of the time, the discussion takes off from entirely theoretical considerations, starting from conceptual distinctions that are not tied back to an analysis of how our mental lives unfold naturally and pre-theoretically. This phenomenological deficit is set to come back to haunt the theoretical proposals—rendering them unintuitive and abstract. For example, what starts out as an innocent conceptual *distinction*—as that between the cognitive and the emotional—can easily come to be treated as an ontological *separation*, so that at some point the idea of purely “cold,” unemotional cognition seems natural, which is a clear mistake. Minimally, valid theorizing about the mind, while not necessarily tied to a phenomenological approach as its prime method, should not blatantly *disregard* phenomenological observations about how actual, real-life experience unfolds. Better still is an approach that employs phenomenology from the outset, letting it inform conceptual distinctions and even suggest experimental designs in the mind sciences (Gallagher, 2003; Ratcliffe, 2008; Thompson, 2007).

Adopting a phenomenological stance can bring in view some *prima facie* indications that something like extended emotion is in fact happening regularly. Some of our emotional experiences are such that their quality, intensity, and dynamics seem to come to a significant extent from without. In these cases, *a part of the world* is what sets up, drives, and energizes our emotional experience. Watching a breath-taking opera performance that moves us to tears, dynamically framing the entirety of our experiential space for a certain period of time. Being drawn into euphoria on an exuberant party, amongst a crowd of enthusiastic dancers whose dynamic movements and overflowing excitement literally take hold of our lived body, making us move in the rhythm of the crowd, feeling

⁴ For thorough critiques of the EM framework, see Adams and Aizawa (2001) and Rupert (2004). Much of the ongoing controversy is documented in Menary (2010).

immersed and connected. Getting worked up into intense rage amidst a furious mob of protestors, being drawn into aggressive shouts and movements, ready to fight or otherwise engage an opponent. In these cases, the social environment provides more than just stimuli or elicitors of “inner states.” Rather, situation and feeling are inextricable; gestalt features of the environment and our embodied experience fuse into one another, and this is also inextricable from our readiness and willingness to act, including our sense of ability, of strength and control, and thus might move us to do or try things we wouldn’t otherwise so much as consider or think about.

A different kind of case is where we ourselves provide the external consolidation for an emotional episode, through an emphatic act that helps us turn an initially inchoate feeling into a determinate type of emotion, such as when we confront or attack an offender to give clearer shape to our mounting anger. Novelist Robert Musil (1978) called acts of this kind “Gefühlshandlungen”—*emotional actions* that can serve to bring determinacy into our affective lives. These emotional actions seem not entirely unlike what is discussed as “epistemic action” by EM theorists (see Clark, 2008, pp. 70–81; Kirsh & Maglio, 1994). Emotional action can clarify both the eliciting situation, which might be opaque at first, and one’s own evaluative stance toward that situation, which might be indeterminate initially. In addition, however, emotional action is often governed by the potentially skewed “logic” of a specific type of emotion—such as confrontation in the case of rage, retreat or hiding in the case of shame, flight in the case of fear, depressive avoidance of contact in the case of grief, etc.

At least in some such cases, we find ourselves with emotions we would be utterly incapable of experiencing in the absence of the environmental structures or without the actions that help solidify these emotions. Thus, it seems that there are “tools for feeling”—including emotional acts and strategies—in something like the way there are “tools for thinking” in EM theorizing (Clark, 2002; Dennett, 2000; see also Slaby et al., 2006). Does the agent form a transient *coupled system* with these external structures by hooking onto them in emotional experience?

Phenomenologically, it can seem as if an environmental structure creeps in upon us, fills our experiential horizon and affects our bodily poise, our posture, our readiness and potentialities to act, and even the execution and style of our agency. We might have the feeling of temporarily “dissolving” into the crowd of protestors or party people on the dance floor, as our normal mental mode, composure, and default agency is radically transformed, sometimes approaching a trance-like state of absorption.

Usually, it is assumed that internalism about the vehicles enabling conscious experience is the default position, so that the onus is on proponents of externalism and EM to show that this is not so. But why is internalism the default position? This assumption might be questioned, or rather, its status might be changed from unquestioned prior commitment to testable explanatory hypothesis (Hurley, 2010). In this way, the burden of proof would not be assigned beforehand. The playing field on which externalists and internalists meet would be leveled, treating it as an *open question* whether the enabling machinery of emotional (and other) experiences is all in the head or not. Without robust evidence that

disfavored externalist explanations, a commitment to internalism would amount to the assumption of a “magical membrane,” separating and privileging what is inside our skulls from the rest of our body and the world (Hurley, 2010, pp. 103–105). Given the dense, continuous high-bandwidth reciprocal interaction between organism and environment (Haugeland, 1998, p. 220) and the current absence of even a working understanding of how conscious experience is brought about, such a privileging of physiological interiority seems contentious.

There are different versions of EM out there, so I should make clear what kind of approach to the extended mind I am favoring. I don’t adhere to the so-called *parity principle*—where the candidate extension is some external item that plays the same functional role as a potential internal mental process and in virtue of this may count as mental itself (Clark, 2008, p. 77; Clark & Chalmers, 1998). The parity principle has caused much confusion and it is notoriously debated. Moreover, it is impossible to assign emotions clear-cut functional roles that capture all their relevant aspects. Therefore, it is better to adopt the “integrationist” approach to EM (Menary, 2006) that depicts the extended dynamics between organism and environment as forming a hybrid system—a system that gives rise to mental processes that the organism “on its own,” de-coupled from the relevant environmental structure, would be incapable of instantiating. Many of our real-life emotions are like dancing a waltz—you just can’t do it on your own. The emoting agent is in dense, continuous interaction with some expressive environmental structure—such as an opera performance, or a brilliant orator giving a speech, or a crowd of protestors chanting rhythmically—which influences, through multiple channels, various bodily and neural processes so that an intensive emotional experience is generated, one that would be mischaracterized without invoking the external dynamic and expressive structure of the performance, speech, or protest.

This notion of interactive coupling brings this version of extended mind in close vicinity to enactivism. Emotions are excellent examples of the kinds of dynamic, embodied, and performative processes of “sense-making” that are featured by enactivists. Accordingly, this is where we have to look for considerations that can lead to a partial revision of EM.

Enaction rules extension

Enactivism—basics

Enactivism holds that the mental is a subclass of the processes of interaction and exchange between a self-organizing system and its environment—processes through which both living system and environment take shape and come into being as distinguishable (although not separable) entities, which means that both system and environment can only be properly specified in their dynamic mutuality. Mind is (a continuation of) life: a continuation of—and thus structured in some respects similar to—the metabolic process of a system’s self-organization in exchange with appropriate environments (Thompson, 2007). Mental processes are thus essentially active, performative sequences of organism/environment interaction, and accordingly they are not intelligible in abstraction from what they relate

to. The mental is an interplay and intermingling of goings on in brain, body, and world. It is strictly relational so that it makes no sense to try to assign it a determinate location (Di Paolo, 2009). *Enaction rules extension:* Locational issues—the question of whether a mental process is physically “inside” or “outside”—are rendered meaningless. There is exchange, interaction, dense coupling—continuous process—but no determinate location, the continuous looping interaction of neuronal, bodily, and environmental processes is what instantiates mentality (Thompson & Stapleton, 2009). The question then rather becomes one of relative intensity or temporary dominance: *What is leading the way* in a given mental episode, at a given time—is it the organism/agent and her intrinsic initiative, or is it some structure in the environment that originates a specific dynamic and takes the lead in the dance?

Enactive emotion

Emotions are the paradigm case of an enactive mental process (Colombetti & Thompson, 2008). Emotions epitomize the idea of goal-conducive “sense making”: the enactive agent strives for self-preservation and the fulfillment of other goals, both basic and non-basic—and thus needs to respond and react to what has salience and value in relation to these goals. Obviously, it makes no sense for an agent just to record or represent value features and stop there, but the agent has to *act* accordingly and pursue what it needs and avoid what may harm it. That is just what individual emotions do, on the most basic level—track salience and value in such a way as to directly initiate appropriate responses and actions, and follow through with them if possible, navigating environmental constraints.⁵

To enactivists, an emotional episode is an active, performative process—something we do as much as something we just passively undergo. Emotions are thus matters of *active striving*—or more precisely, modifications of processes of an agent’s active pursuit. It would be wrong to count them just as passive mental states (Slaby, Paskaleva, & Stephan, 2013).

As such active processes, emotions are a matter of the *lived body* in a Merleau-Pontyian sense: the body understood as a medium of engagement in the world and experience of the world. Body and world are densely attuned; there is a dynamic interplay and equipoise between the lived body and the world becoming manifest as an arena of significance, offering opportunities for engagement. A key characteristic of the lived body is that it manifests an agent’s concrete potentialities, embodying a practical world-orientation in the mode of “I can” or “I can’t,” at the same time providing instant kinesthetic and evaluative feedback on how one’s activities are going. These felt bodily potentialities provide the dynamic schemes through which the environment is apprehended—where the environment comes in view in terms of the affordances and solicitations it offers to the agent (Scarantino, 2003). The active lived body is thereby also a *feeling body*—a resonance field in which the successes or failures of one’s active pursuits as well as prospects and hindrances are registered immediately in the form of positive or negative feelings—affective

⁵ This is the slimmed down, biologically minimal version of the explication of the “essence of emotion” given earlier.

experience thus modifies embodied activity from within, keeping it oriented toward its goals (cf. Slaby, 2008b). It is this felt bodily dimension that anchors our life's fundamental character as a realm of and orientation toward significance. Thus this detour via enactivism brings us back to where we started with: to emotionality as the capacity of having something matter to us.

Where do we stand with regard to extended emotion? On the one hand, enactivism renders the extendedness of mental processes less surprising. In one sense of the term, to call mental processes "extended" is just to articulate the fact that they are processes spanning brain, body and world in continuous "high bandwidth"-coupling. If enactivism is right, a kind of default extendedness pertains to all mental processes (Di Paolo, 2009).

On the other hand, the processual and performative understanding of emotion provides a phenomenological counterpart to another founding thought of extended mind theory. In their seminal 1998 paper, Clark and Chalmers distinguished *active externalism* from the older semantic externalism, which is exclusively an externalism of the reference of linguistic expressions and mental content, not depending on a causally active, synchronic relation to the environment. While Clark and Chalmers mean by "active" not much more than *causally* active, it is not a big step to transform their active externalism into a richer *externalism of process*. It is not just any ongoing causal interaction between agent and environment, and also not just those that can be interpreted in terms of cognitive performances, but it also encompasses dynamic structural coupling that as such is manifest consciously. A part of the process dynamics of emotion can both originate and also be dynamically sustained and driven along by processes in the environment of the emoting person, as when one is moved to tears by a sad movie or pulled into anger and even active aggression by being under the sway of a fierce crowd. The minimal affective and agentive self that is the practical and hedonically salient lived body—the fundamental "I can" at the base of our embodied experience—is just this dynamically open structure, constitutively capable of being engaged and drawn in by dynamical goings-on in its surroundings.

Crucially, we have to think of this not only in terms of mundane examples such as Merleau-Ponty's description of a blind man's cane, a performance which might be only minimally related to affectivity (Froese & Fuchs, 2012; Gallagher, 2005; Merleau-Ponty, 1945/1962, p. 139). Instead, there are many cases where the body-schema-expanding engagement is from the outset one of intensive emotional involvement. Here, the *feeling* body is drawn into the act in a pronounced way, as the embodied engagement with the world is now a matter of being intensively *affected* by what one is involved with—the embodied engagement in these cases is inextricable from intensive emotional experiences whose dynamics, pace, intensity, hedonic tone, and action tendency are dictated from without: by the expressive dynamics of the theater play one is watching, by the behavior of the crowd one is immersed in, or by the affective dynamics displayed by one's interlocutor or opponent in a face-to-face exchange. These are cases of affective-phenomenal coupling and thus fully-fledged instances of extended emotion.

Extending emotion, steps toward a theory

Socio-normative interaction and participatory sense-making

Griffiths and Scarantino (2009) distinguish “diachronic scaffolding”—the longer-term shaping of emotions by cultural frames, scripts, templates (and one should add: *institutions* of emotion such as romantic love or the “culture of therapy” etc., see Illouz, 2007), from the synchronic scaffolding of emotion: the occurrent, “online” shaping of emotional experience by direct coupling and continuous interaction with the environment. While Griffiths and Scarantino only hint in passing at the phenomenal dimension of synchronic scaffolding, they provide a helpful account of other dimensions of the emotion’s situatedness. Before I turn to phenomenal coupling, a quick look at how emotions in general are shaped in social interaction can provide some relevant background.

Social interaction (be it face-to-face or individual-to-group) is of tremendous importance to the formation and development of individual emotions. Chains of coordinated responses between interactants—verbally, through mimics, gesture, posture, or other forms of bodily coordination—are often those which first crystallize an inchoate episode of feeling or affect into a stable form, into a nameable emotion. Without the interaction, many an affective episode would remain in an impoverished state—unstable and inarticulate, and thus remain at the level of mere affect instead of taking shape as an emotion proper (cf. Campbell, 1997, ch. 2).⁶ Ubiquitous social interaction practices are the natural setting in which the emotional actions described here take place, in the form of interactive exchange, or what enactivists call “participatory sense-making” (De Jaeger & Di Paolo, 2007).

Importantly, these interactions not only have practical and phenomenological implications, but a crucial normative dimension as well. Emotions are not just shaped as a matter of fact, but also constituted as a *normative* reality—as matters that are subject to assessments of appropriateness. Helm speaks of emotional “commitments” and “entitlements” in the manner of Robert Brandom’s inferentialism (Helm, 2001). Once expressed and then reflected back and acknowledged by relevant others, I am *committed* to an emotion of a certain type and to rationally appropriate follow-up emotions—and the others are expected to hold me to my commitments by normative sanctioning. For example, it is normatively inappropriate *not* to feel happy or relieved after the danger that gave rise to one’s fear has been avoided. Our emotional lives are in this way situated in a normative social practice that provides an encompassing socio-normative scaffolding for our individual emotional episodes.⁷ Without the corresponding responses to my emotions

⁶ On the distinction between *affect*—in short, feelings not fully articulate and organized into recognizable, controllable, and intersubjectively accepted types of emotion—and *emotion* see Massumi (1995).

⁷ In fact, going this way could be another way of showing that the human mind, properly construed, cannot be conceived otherwise than as *vapidly*, almost trivially extended: mind, in the normative-pragmatic sense, *constitutively* depends on other minds and on communal norms established in and enforced by the pervasive practices of social interaction (see Crisafi & Gallagher, 2009).

by others, without the other's expectations and demands, without communally established rules of appropriateness, and without this dance-like interplay of dynamic embodied interaction, a person's emotional life would run a different, certainly impoverished, and unstable course. In all sorts of ways, individual emotions are *beholden* to the larger dynamic, interactive, and normative frameworks that partly shape and influence them.

But this is not all there is to the situatedness of emotion. So far, what has been described in this section predominantly concerned *structuring* factors of mental states, not their *triggering* or *driving* factors.⁸ Our mental states are embedded in pervasive structures of norms, habits, institutions, routine practices—not to forget language as the ultimate framework of human affairs. However, these kinds of scaffolding are just the indispensable backdrop of our mental lives. It is time to deal in more detail with the crucial dimension that alone warrants talk of fully-fledged *emotional* extension: the direct shaping of emotional experience in its immediate phenomenal richness.

Phenomenal coupling

Phenomenal coupling is the direct, online engagement of an agent's affectivity with an environmental structure or process that itself manifests affect-like, expressive qualities—be it in the form of an *affective atmosphere* (Anderson, 2009; Schmitz et al., 2011) or as a dynamic gestalt feature of a different kind, such as an *expressive quality* of a piece of music (Levinson, 2009). The most relevant range of examples is in the social-interactive domain: nothing is as emotionally engaging as the expressivity of fellow humans—individuals as well as groups can draw us into emotional experiences that we would not be able to experience on our own. Another key range of examples is found in contexts of art reception, as many of the emotions we experience in response to dynamic art-forms such as music, film, theater, or dance are likewise such that their full phenomenal quality cannot be characterized without recourse to the expressivity of the artworks themselves. Here, as in most interpersonal cases, what goes on in our environment is itself active and expressive, and we are obviously intimately attuned to certain expressive gestalt features in a way similar to how we respond to the expressed emotions and the manifested agency of fellow humans.

As shown in the “Enactive emotion” section, the agentive and experiential body schema that forms the ever-present background of experience is capable of expanding so as to incorporate structures in the environment, both in contexts of instrumental action and in contexts of emotional experience. The feeling body is a transparent, though evaluatively “tinted,” medium of emotional experience, and it is constitutively open to be affectively engaged in interaction. Froese and Fuchs (2012) provide a succinct account of how this might be played out in interpersonal interaction in the form of a dialogical interplay of expressions and impressions, with the lived body as a “felt resonance-board for emotion”

⁸ This distinction is deliberately reminiscent of Dretske's distinction between structuring and triggering causes of behavior (see Dretske, 1988).

(Froese & Fuchs, 2012, p. 212). In these inter-affective exchanges, the manifested emotional expression (face, gesture, body posture, movement, etc.) of one interactant is apprehended by the other in the form of an affective bodily resonance. This in turn modifies the second person's expressivity, which is again experienced by the other, and thus a dialogical sequence of mutual corporeal attunement unfolds.⁹

A full-blown case of extended emotion would be one where an agent is “worked up” by another to such an extent that he comes to have an emotional experience outside the range of his normal emotional repertoire—such as when a contagious demagogue infects others with his particularly aggressive anger, making them feel in a more intense and expressively rich way, probably leading them to act in ways they later regret. Or consider the case where a joyful, pleasant, and accommodating person might temporarily transform the grim disposition—including a weak and disengaged bodily demeanor—of a mildly depressed person, cheering him up and enlivening him so that he comes to feel and act in ways hitherto precluded to him. Embodied emotional interaction in some cases can function almost like a string-play, as when the forceful expressivity of one partner in the interaction engages that of the other, initiating and then leading the way in an intercorporeal dance, scaffolding the other’s emotions.

In these embodied interactions, a decisive vehicle for phenomenally extended emotion is the bodily expressivity of the person that comes to feel the enriched emotional state—what is first acted on in these interactions are facial expression, gesture, body posture, and overall bodily comportment. The natural assumption is that these enhanced expressions in turn give rise to a richer phenomenal experience. Krueger’s (2009) description of patients suffering from Moebius syndrome—a paralysis of facial expression that goes along with a significantly diminished felt affectivity—points in this direction. The less I am able to express myself through the natural channels of embodied affectivity, the less I will be able to feel in situations of emotion. But there is a danger of stopping at this point, so that it can seem that the way emotional feelings are experienced is *just* a matter of quasi-Jamesian bodily sensations, a felt feedback of bodily changes (Prinz, 2004). While certainly a crucial ingredient, this affective bodily feedback does not provide all of the phenomenal characteristics of emotional experience. Instead, emotional experience—even in its immediately felt character—is an affective engagement with the world. In and through her emotion, the emoter apprehends and phenomenally experiences the situation she is in. And this is what happens in the embodied interactions that extend emotion: my emotional “vision” of what goes on around me is transformed in the interaction, the emotional feelings in question are *feelings-towards* in Peter Goldie’s sense (Goldie, 2000) and thus a form of affective world-disclosure.

To show in more detail how these world-disclosing feelings unfold in situations of possible extension, I will focus on one key intermediate phenomenon linking the feeling

⁹ Joel Krueger has likewise provided in-depth descriptions of affect-rich embodied interaction, and he helpfully invokes the concept of a “we-space” as the specific interpersonal realm that is created and then negotiated in these dialogical embodied exchanges (see Krueger, 2010).

body with the affectively apprehended environment: namely, affective atmospheres. Being gripped by an atmosphere is a case of phenomenal coupling to a structure in the environment that itself has dynamic phenomenal characteristics. In the present discussion, talk of affective atmospheres describes cases of phenomenal coupling by characterizing that which the coupling is to. For example, this is how the violently angry person *also* comes across in interaction: as someone radiating an atmosphere of energetic aggression—an atmosphere which is experienced as a field of force that is hard to withstand for those in its vicinity.¹⁰

Emotional atmospheres are pervasive: people, things, places are often surrounded by or “have” atmospheres, there is the expectant atmosphere of a conference room just before a big lecture begins, the tense atmosphere of a difficult meeting, the atmosphere of a building, or of a city, the atmosphere that surrounds an individual, or the atmosphere that predominates between friends or in a loving couple. Atmospheres often impress themselves on us, they can grip us with authority—as when we can’t help but feel tense in a group of stressed-out people.¹¹

Emotional atmospheres are *affective qualities in public space*—qualities realized in a distributed manner by several elements spread across a scenery, making up dynamic situational gestalts. They are experientially manifest as wholes, and their separate elements, if distinguishable at all, might be explicated only after the holistic impression has been received. As qualitative figurations of interpersonal space that are often purposefully arranged, atmospheres are the counterpart, on the side of phenomenal experience, of the “cognitive props and aids” that Clark so often invokes—not tools for thinking, but *tools for feeling*.

The fact that we can neutrally behold an atmosphere shows that they are not entirely experience-dependent. We can coldly register the jubilant atmosphere of a party while being sad and detached ourselves. Or we can, while being happy or euphoric, still grasp the sadness, irritation, or tension that envelopes a group of people on a funeral we are about to join (see Schmitz et al., 2011). Atmospheres are detachable from individual experience, and they are something that we can often agree upon intersubjectively, even between people that are differently attuned to them. This partial detachability is a precondition for viewing atmospheres as something that can be deployed as “mind tools”: they

¹⁰ The phenomenon of an emotional atmosphere is not unrelated to what is usually called “charisma.” They differ in that charisma is an affective dimension pertaining to a person whereas atmospheres are usually more marked and more situational, and not necessarily anchored in a person or group of persons (see also de Rivera, 1992).

¹¹ My reflections on atmospheres are indebted to the German phenomenologist Hermann Schmitz, who has developed an encompassing phenomenology of the lived body, in which the concept of an atmosphere figures prominently (see, e.g., Schmitz et al., 2011). In sociology, de Rivera (1992) has done important groundwork. He helpfully distinguishes between emotional *climates*—stable collective emotions experienced in a society that reflect longer-term sociopolitical conditions—and emotional *atmospheres*, which are relatively short-term, situation-related affective experiences shared between members of a group.

are sufficiently external so that they might be deliberately evoked through design, architecture, decoration, etc. (see Anderson, 2009).

Atmospheric features of a situation impress themselves variously upon dimensions of the feeling body—for example, by making us tense, by putting a felt load upon our bodily frame or by relieving a tension, making us relax and open up to our surroundings. In this way, an atmosphere might provide some, or most of the emotional quality and dynamics in a given situation, while also leaving room for the agent's idiosyncratic contribution. Accordingly, an atmosphere does not determine entirely the course, quality, or depth of a person's experience, but it may prefigure, temporarily dominate, and guide it, for example, by modifying dimensions of corporeal experience and thus the level of ease or difficulty with which one engages in activities. This also captures the experience that we are sometimes literally "in the grip" of a situation, without much intentional control. The events unfolding around us draw us in, carry us away, make "us" a part of their dynamics, whether we want it or not.

An atmosphere's force consists in its capacity to affect a person's bodily dynamics, for example, in modifying the characteristic weight that usually pertains to the lived body—such as when a joyful atmosphere is literally experienced as uplifting, as suddenly making us willing (and effortlessly able) to jump around. Or take the opposite case—a context of tragic loss, where an atmosphere of sorrow wears on us heavily, and burdens us with a felt load that makes us unable to act. In all these cases, the feeling body is not initially experienced as separate from the world, but rather as in constant dynamic interaction with what goes on in the environment. It is a kind of *in-corporation*—the bodily resonance field has no fixed boundaries, but a constantly shifting shape that may dynamically extend out, depending on what affect-intensive phenomena are currently unfolding around us.

Conclusion

With the lived body construed in this way, with descriptions of the rich expressive dynamics of embodied interaction, and with an understanding of affective atmospheres as dynamic, forceful qualitative and expressive gestalt features in public space, extended emotions begin to look phenomenologically plausible. Given all this, we have good reason to assume that emotions experienced in virtue of an individual's immersion in a collective can be such as to transform her emotionality in fundamental ways, giving rise to emotions different in kind from what she was capable of experiencing before. Of course, the approach outlined in this chapter is different from the conceptual framework of standard EM, but it is capable of endowing it with a much needed descriptive dimension, enabling it to encompass the phenomenal characteristics of emotional experience and inter-affective exchange. The view explored here also shares with EM some important ideas: namely, "tools for feeling" as analogous to EM's "tools for thinking," the important role of an agent's activity in structuring not only her epistemic but also her affective environment, and thus also the acknowledgement of the importance of our deliberate designing of the environment—a kind of *emotional niche construction*—in order to make us experience more and qualitatively different emotions than we would be capable of otherwise.

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Chapter 4

Emotional communities of respect

Bennett W. Helm

Franklin & Marshall College

The term “collective emotion” encompasses a variety of emotional phenomena. In the philosophical literature, two models have been used to make sense of some of these phenomena, what I will call the shared emotion model and the plural subject model. On the *shared emotion model*, we share emotions in the sense that, although each of us has his or her own emotions, these emotions are in some sense the same as others’ emotions—we all experience anger, or perhaps anger at the same object—and this sameness is non-accidental, the result of some process that links us together. This process can be a non-rational, causal process, such as emotional contagion, whereby each gets swept up in the emotional response of the rest, as when you find yourself picking up the angry mood of a crowd, perhaps even when you don’t know what we are all angry at; or this process can be rational, grounded, for example, in our mutual identification with each other (via patriotism, for example) or in our sharing a commitment, as when we share the joy of completing a project (Tuomela, 2007). On the *plural subject model*, by contrast, a collective emotion is a single emotion that in some sense is to be attributed to the group itself rather than to individual group members, so that in some primary sense the group (and not the individuals) is the subject of the emotion. The idea is not that the group itself has a mind and mental states in exactly the same way that individuals do; rather, it is that there is a phenomenon at the level of the group that can properly be understood to be an emotional phenomenon and that is irreducible to the states of mind of the individual group members. What makes this possible is the way individual group members undertake something like a joint commitment (as distinct from coordinated individual commitments) to something’s value, such that they as group members respond to events that affect that value favorably or adversely. Consequently, I as a group member may feel joy at our having accomplished something, even though I as an individual may think that we should not tried to do this in the first place and so am disappointed by the waste of our collective efforts and resources (Gilbert, 2000; Helm, 2008).¹

¹ In spite of the similarities just articulated, there are fundamental differences between Gilbert’s view and mine. According to Gilbert, a group of individuals can jointly commit themselves to feel a single emotion and thereby institute a plural subject of that emotion. By contrast, my account of a “plural agent” requires that members of a plural agent jointly commit themselves to *caring* about something, which caring itself gets analyzed in terms of a broader rational pattern of emotions, desires, and evaluative judgments. (For more on this account of caring as applied to individuals, see “Emotions and caring.”)

In this chapter I want to consider a third model for what might be called “collective emotions,” a model that involves the reactive emotions: emotions like resentment, gratitude, indignation, approbation, and guilt.² It is commonly acknowledged that the reactive emotions involve a kind of social dimension, at least insofar as they are normally responses to how we or other members of a community treat each other. My claim will be that this social dimension, when properly understood, is fundamentally a collective phenomenon, although not at the level of individual reactive emotions. For your resentment of me when I step on your foot is not an emotion that you share with me or anyone else, as according to the shared emotion model; indeed, in general no one other than you, the aggrieved party, is in a position to resent me. Likewise, your resentment in general is an emotion you feel on your own behalf and not merely as a member of some group that is the proper subject of that resentment, as on the plural subject model. And yet, I shall argue, the reactive emotions play a fundamental role in constituting distinctively human communities in part because they constitute *our* respecting each other and *our* reverence for the community itself, such that I respect you and revere the community only as one of us. Thus, although the reactive emotions in general are emotions we feel as individuals, they are nonetheless emotions we feel only as members of certain communities: communities of respect, as I shall call them.

I have long argued (in, for example, Helm, 2001) that various sorts of evaluative attitudes, such as caring, valuing, and loving, are to be understood in terms of a distinctive rational pattern of emotions. In understanding respect and reverence to be collective phenomena, I mean first that the relevant pattern of rationality is one that extends across multiple persons, so that what reactive emotions it is rational for me to feel is tied to those it is rational for others to feel, and second that the evaluative attitudes these patterns constitute—the respect and reverence themselves—are ours jointly. Indeed, my claim will be that these rational patterns are such as to bind persons together into communities of respect, where such communities are themselves constituted by these rational patterns of reactive emotions. Such communities can be narrower or broader, encompassing everything from the members of a particular family to the community of tennis players to the community of all persons. In the case of the community of all persons, I shall suggest, these rational patterns of reactive emotions will prove fundamental to understanding what it is to be a person and how we are bound by moral norms.

I shall proceed as follows. Firstly in “Emotions and caring” I shall present, without argument, a background account of caring in terms of rational patterns of emotions. Then in “Reactive emotions and rational patterns” I shall extend this to think about the reactive emotions in particular, arguing that the rational patterns formed by reactive emotions are distinctively interpersonal. Next in “Dignity, reverence, and the reactive emotions” I shall argue that these reactive emotions constitute simultaneously the dignity of members of a

² In the literature (under the influence of Strawson, 1962), these are generally known as the “reactive attitudes.” To avoid confusion with what I shall later call the “evaluative attitudes,” I will instead talk of the “reactive emotions.”

particular sort of community and our respect for each other as members, and following this in “Dignity and communities of respect” I shall defend this account of dignity and respect in the face of objections that they are inadequate for morality. Finally, I conclude with some brief reflections on the sense in which the reactive emotions are collective emotions.

Emotions and caring

In general, to *care* about something, for it to have *import* to one, is to have a concern for its well-being, a concern in which one finds it to be worthy of both one’s attention and action. To understand how such caring can be constituted by rational patterns of emotions, we must first say something about emotions and their objects.

Emotions in general are responses to what has import to us: they are evaluative responses to what we care about. Each emotion type has its own characteristic evaluation—its own *formal object*; the object one evaluates in having a particular emotion is that emotion’s *target*. For example, when I am angry at the squirrels for eating my tomatoes, I thereby evaluate them as offensive; were I afraid of them instead, I would evaluate them as dangerous. Here, the squirrels are the target of my fear or anger, and offensiveness and dangerousness are the formal objects of anger and fear, respectively. One question these evaluations raise is why they are appropriate. Here the answer cannot simply be that the squirrels have eaten or are threatening to eat my tomatoes, for they also eat or threaten to eat the acorns from my oak tree, but that doesn’t normally inspire my fear. The difference is that I just don’t care about the acorns, whereas I do care about my tomatoes. It is only because of the relationship between the squirrels and something I care about that my emotional evaluation of them as dangerous or offensive makes sense. We can formalize this idea by understanding emotions to have a third object in addition to a target and a formal object: an emotion’s *focus* is the background object the subject cares about whose relation to the target makes intelligible the evaluation of that target in terms of the formal object. That the subject cares about the emotion’s focus—that the focus has *import* to the subject—is a necessary condition of the emotion’s warrant, so that emotions are intelligible as responsive to import.

This notion of an emotion’s focus is important for understanding the way emotions are rationally connected to each other. For the sense in which each emotion “involves” an evaluation should be understood in terms of a commitment to the import of the focus of that emotion and thereby of its target. This means that in having one emotion, one is thereby committed to responding to the import of its focus in other circumstances with appropriate other emotions: other things being equal, therefore, one rationally ought to have these further emotions in the appropriate circumstances. For example, there would be something rationally odd about my being afraid of the squirrels and yet failing to be relieved if they don’t eat my tomatoes or angry or disappointed when they do; this indicates that in feeling particular emotions we undertake what I have called *transitional commitments* from forward-looking emotions (like hope and fear) to corresponding

backward-looking emotions (like relief and disappointment). Similarly, there would be something rationally odd about my being relieved that tomatoes were unscathed if, in the relevant counterfactual situation in which my tomatoes were eaten (or destroyed by a hailstorm or dry rot) I would not also feel disappointment; this indicates that in feeling particular emotions we undertake *tonal commitments* between positive emotions (like relief and satisfaction) and negative emotions (like disappointment and anger). As these examples indicate, these rational connections among emotions apply even when the emotions do not share a common target: what matters is their having a common focus. (How should I feel were the impending hailstorm to skirt to the north or were I to discover my neighbor has been poaching my tomatoes?) Emotions therefore normally come in rational patterns with a common focus.

The patterns defined by these rational connections include not just emotions but also desires and evaluative judgments. Given my fear of the squirrels, I ought to want to keep them out of my garden, judge that they are a nuisance, and so on. In general, such a pattern of emotions, desires, and judgments is a disposition to respond to their common focus in attention and action when that focus is affected favorably or adversely. Moreover, given the rationality of this pattern, attending to and acting on behalf of the focus is something that, other things being equal, I ought to do, so that the focus is worthy of that attention and action. Consequently, to be the focus of such a pattern of emotions, desires, and evaluative judgments just is to have *import* to the subject, just is for the subject to *care* about that focus. Particular emotions, then, can be assessed for warrant depending in part on whether they fit into such a pattern with a common focus—on whether they are properly responsive to what has import to one. Indeed, import, as an evaluative property of an object to which we respond, and caring, as an evaluative attitude of a subject, are two sides of the same coin, looked at from an objective or a subjective perspective, with neither intelligible apart from the other.

Of course, something has import to us, we care about it, under a particular description. Thus, I might care about my tomatoes merely as a delicious food and so be relatively unconcerned about their appearance. A deluge of rain that leads to their splitting and cracking would then not bother me insofar as their taste is unaffected. However, if I care about my tomatoes as something to sell, then their appearance does matter, and I would be upset by their splitting (and so should take pains to prevent it). In each case, the pattern of emotions, desires, and evaluative judgments partly delimit what about their common focus is worth attending to and acting on behalf of, thereby defining a description under which that focus has import to one.

Reactive emotions and rational patterns

According to Strawson (1962, p. 195), the “participant reactive attitudes are essentially natural human reactions to the good or ill will or indifference of [people toward each other], as displayed in *their* attitudes and actions.” As already indicated, among the reactive emotions are emotions like resentment, gratitude, indignation, approbation, and guilt. Strawson classifies these emotions into three types: the *personal reactive emotions*

are emotional responses, such as resentment and gratitude, a subject feels toward those who display good or ill will toward herself; the *vicarious reactive emotions* are emotions like indignation and approbation a subject feels toward someone who manifests good or ill will toward a third party; and the *self-reactive emotions* are those we feel in response to the good or ill will we manifest toward others, such as guilt or (what Bennett (2008) somewhat awkwardly calls) “self-congratulation.”³

It is widely acknowledged that the reactive emotions are ways of holding people responsible for their actions, in part because in exhibiting reactive emotions we thereby call on others to respond. For example, if I shove you aside as I make my way to my seat, your resentment calls on me to acknowledge my wrongdoing and to apologize and make amends—in effect to take responsibility for my actions. As Darwall (2006, p. 8) notes, in exhibiting such resentment, you are addressing me with a *second-personal reason*: a reason “whose validity depends on presupposed authority and accountability relations between persons and, therefore, on the possibility of the reason’s being addressed person-to-person.” That is, your resentment gives me a reason to respond by taking responsibility in these ways, and it does so because in exhibiting that resentment you are addressing me from a position of authority, with a kind of standing to make a claim that I ought to recognize and to which I ought to respond. In this way, Darwall claims, the reactive emotions are bound up with seemingly moral notions like respect and dignity: your standing and authority to make claims on others, Darwall says, derive from the dignity you have as a person, and in addressing me with your resentment you are calling on me to recognize and properly acknowledge that dignity—to *respect* you.⁴

As with other types of emotions, the reactive emotions exhibit rational interconnections among themselves. In part, these rational interconnections are *intrapersonal*. There would be something rationally odd about your resenting me for wronging you in a particular way and yet failing to resent others for wronging you in the same way. We also find rational connections arising out of tonal commitments: there would be something rationally odd about your resenting me for harming you in one situation and yet failing to feel gratitude toward me in other situations in which I notably benefit you. There are even rational connections arising out of transitional commitments. In trusting you, I am adopting a kind of optimistic attitude not simply toward some event’s happening (as with hope) but rather toward another as a responsible agent, that she will respond (perhaps in some specific way) with good will toward me (Holton, 1994; Jones, 1996; McGeer, 2008).

³ There is some controversy over precisely which emotions are reactive emotions; Wallace (1994), for example, argues that there are three paradigm reactive emotions: resentment, indignation, and guilt. As I have argued elsewhere (Helm, 2011, 2012), we should understand which emotions are the reactive emotions in terms of the rational patterns they form, patterns that, as I shall argue later, constitute our respect for each other. Nonetheless, I shall for the most part sidestep this controversy here.

⁴ Darwall carefully distinguishes two kinds of respect: recognition respect and appraisal respect. *Recognition respect* is what I have just described: the recognition of the dignity of another; *appraisal respect* is a matter of thinking well of a person for his conduct or character (Darwall, 2006, pp. 122–123). My concern in this chapter is with recognition respect.

Other things being equal, I ought to feel resentment when she betrays my trust or gratitude when she upholds it.

Yet the reactive emotions also exhibit *interpersonal* rational connections: in feeling a reactive emotion toward me and so calling on me to respond, among the responses I can be called on to have are themselves reactive emotions. Thus, if you resent me for harming you then, other things being equal, I ought to feel guilty; indeed, others ought to feel disapprobation and indignation.⁵ Similarly, if you feel gratitude toward me for benefiting you, then, other things being equal, I have reason to feel self-congratulation and others to feel approbation. In general, these rational connections are among the personal reactive emotions of one person (the “victim,” as we might call him), the self-reactive emotions of another (the “perpetrator”), and the vicarious reactive emotions of still others (the “witnesses”), such that other things being equal there is something rationally odd about a failure of victims, perpetrators, and witnesses to coordinate their reactive emotions in this way. What an account of the reactive emotions should provide is an explanation for these intrapersonal and interpersonal rational interconnections.

Darwall’s understanding of reactive emotions and the sense in which they involve a kind of address can start to make sense of these rational connections. For if in feeling resentment you are addressing me from a position of authority to make a claim and thereby present me with a second-personal reason, then indeed I ought to respond in a way that recognizes not only your claim but also your authority to make it, and my feeling of guilt is precisely such a response rationally connected to your resentment. Of course, this on its own won’t explain the rational connection between your resentment and witnesses’ indignation, for your resentment is addressed to me, not them. Moreover, not all reactive emotions involve making a claim against someone, as when you feel trust in or gratitude toward me. Darwall acknowledges this (2006, p. 73) and rightly points out that gratitude nonetheless involves respect for the perpetrator—an acknowledgment of her standing as an accountable agent—and so is “parasitic on legitimate claims.” Nonetheless, this doesn’t help explain the rational connection between your gratitude and my self-congratulation; the same goes for transitional commitments between trust and resentment or gratitude.

Given the general account of emotions presented earlier in “Emotions and caring,” we would expect that what explains the rational interconnections among the reactive emotions is their being commitments to the import of a common focus. What is that common focus? Given Darwall’s account, we might expect that focus to be other people, for it is their dignity—this kind of import—to which we respond with the reactive emotions. Yet

⁵ To a certain extent, this claim echoes Allan Gibbard’s claim (1990, p. 47) that the norms one accepts in terms of which one thinks guilt to be rational are the very same norms in terms of which one thinks resentment (or other forms of moral anger) to be rational. Yet my claim (and, I believe, Strawson’s) is both weaker and stronger: weaker in that the kind of norms at issue need not be distinctively moral norms as Gibbard supposes; and stronger insofar as these rational connections among the reactive emotions are understood to hold not simply between guilt and moral anger but rather among all the reactive emotions, negative and positive, in terms of which we can understand the nature of human community. These points will be elaborated later in the text.

this leads to two further worries about Darwall's account. First, for Darwall dignity is the import we have *as persons*, the value from which our authority to address others with second-personal reasons derives. Consequently, respect, as the proper response to that dignity, is a matter of recognizing the standing and authority another has as a person, and Darwall conceives of dignity as ontologically prior to respect. Yet what is the source of that dignity? How are we to make sense of its origins as a kind of import? Darwall provides no clear answer.

Second, it is not clear that someone's dignity *as a person* is what is relevant to the reactive emotions. As Strawson rightly points out, the interpersonal connection among the reactive emotions, what he calls their "human connection," is grounded in the fact that the personal, vicarious, and self-reactive emotions "have common roots in our human nature and our membership of human communities" (Strawson, 1962, p. 201). That Strawson mentions "communities"—plural—is important: there are multiple communities to which we might belong and within which we expect or demand respect as a response to the import we have as a member of that community. Darwall gets into trouble here by assimilating all cases of dignity and respect to the dignity of persons as such and respect for someone as a person; indeed, this is particularly clear in his discussion of the sergeant issuing orders to a private. Such an order, Darwall says, is a second-personal address, in which:

the sergeant must presuppose that the private can accept the authority she claims as a person, that is, from the (second-person) standpoint they both share as free and rational, and that, as a person, he can accept the specific normative requirements she attempts to place on him for the hypothetical case of occupying the role of private. (Darwall, 2006, p. 260)

Yet the authority she claims is as a sergeant, not as a person (though of course she can have that authority only because she is a person). For it is only because she and the private belong to the same army—the same human community—that he has reason to recognize that authority and so to respect her—respond to her dignity—not just as a person but as a commanding officer.

These two issues are related. For if we have dignity not merely as persons but also as members of particular communities (including the community of all persons), then the question of the ontological origins that dignity might seem more pressing. After all, not just any group of people involves its members having a kind of standing or authority as members, and so we need to provide an account of what distinguishes the relevant sort of communities from other groups and how such communities can be formed in such a way as to explain how its members' can have dignity as members and so demand respect from (and make claims on) others. As I shall argue in the following two sections ("Dignity, reverence, and the reactive emotions" and "Dignity and communities of respect"), we can do this in terms of rational patterns of the reactive emotions.

Dignity, reverence, and the reactive emotions

The reactive emotions are emotions; given my general account of emotions, they are therefore commitments to the import of their focuses, such that rational patterns of these

emotions constitute that import. How precisely are we to understand the focus of the reactive emotions and so the kind of import they jointly constitute?

Darwall is surely right that dignity and respect are relevant to the reactive emotions, and so we might expect that in feeling a reactive emotion we are committing ourselves to someone's dignity; but whose? In feeling resentment toward someone, you are in part demanding that she recognize and so respect the dignity—the standing and authority—you (the victim) have as a community member; so it might seem that while she is the target, you are the focus of your resentment. However, it should be clear that resentment and other reactive emotions, as ways of holding others accountable to the norms of the community, simultaneously involve a commitment to the standing of the perpetrator as responsible to those norms. Moreover, they also involve a commitment to the dignity of witnesses as members of the community insofar as they call on witnesses to respond with appropriate vicarious reactive emotions, a call that is rationally connected to further reactive emotions such as resentment when witnesses fail to respond, or gratitude when they do in notable ways. In short, we cannot dissociate your commitment to your own dignity as a member of the community from your commitment to that of all other community members.

This may suggest that the import to which we are committed in feeling the reactive emotions is the dignity of community members generally. While this is correct, it is only part of the truth. For a commitment to the dignity of community members generally is a commitment to the import of their standing and authority to hold themselves and others accountable to the norms of the community. Yet such a commitment presupposes a commitment to the import of these norms as well.⁶ For these norms are intelligible as binding on particular community members as responsible agents only insofar as the community generally has the practice of holding its members accountable to norms,⁷ and the import of these norms is likewise intelligible only in the context of the overall activity, practice, or way of life these norms define. Consequently, these commitments to the dignity of community members and to the import of the norms are a part of and subsidiary to a more general commitment to the import of the community itself and its defining activity, practice, or way of life. This is analogous to other cases in which we care about the means as a part of caring about the end or in which we value what a beloved values as a part of loving him. In such cases, I have argued (Helm, 2001, §4.4), there will be a subpattern of emotions “subfocused” on the means (or on the thing valued) that is a part of the overall pattern of emotions that is focused on the end (or the beloved). Similarly, in the case of the reactive emotions, their focus will be the community itself, with the

⁶ Note once again the similarity of this to Gibbard's claim (1990) that (moralized) anger and guilt presuppose a commitment to certain norms of response. Nonetheless, my claim is that the reactive emotions precisely are this commitment, and that this commitment to import extends beyond the norms to include both other persons and the community to which they belong.

⁷ This is not to say that for a norm to be binding on me the community must hold me accountable to that norm. Clearly we need to make room for the possibility that the community can be mistaken about what norms are binding on its members.

victim, the perpetrator, and the witnesses, along with the relevant communal norms as their subfocuses.⁸

If the focus of such a rational pattern of reactive emotions is the community, then that pattern constitutes the import the community has to us—constitutes our caring about it in a certain way—and the subpatterns constitute the import the subfocuses have. If individual reactive emotions are responses and commitments to the dignity of community members, to their standing and authority in the community to make demands of others and hold each accountable, then subpatterns of reactive emotions subfocused on community members generally constitutes both their *dignity* as community members and, simultaneously, the evaluative attitude of *respect* as the proper response to that dignity. Yet if the dignity of community members is a part of the import of the community—if we respect other community members as a part of our caring about the community—then this import of, this caring about, the community must be distinctive: it is, I shall say, a matter of *reverence*. Thus, we respect members of the community as a part of revering the community itself and its defining practice. I call such communities “*communities of respect*.”⁹

Dignity and communities of respect

This understanding of dignity as constituted by patterns of reactive emotions may seem inadequate. For partly through the influence of Kantian ethics we ordinarily understand dignity to be that import that justifies a person’s being treated in a certain way and so as demanding a distinctively moral form of respect, and yet the account of dignity and respect given in “Dignity, reverence, and the reactive emotions” seems hardly adequate to morality. I start with two worries, each related to the criticisms raised of Darwall earlier (see “Reactive emotions and rational patterns”). The first arises from my general claim (see the end of “Emotions and caring”) that import and caring are two sides of the same coin. For if this is right when applied to dignity and respect, then it may seem that someone has dignity just in case others respect him, and surely that is false: a person’s dignity is that to which people *ought* to respond with respect, whether or not they actually do. Consequently, it might seem, my attempt to answer the question, raised earlier in “Reactive emotions and rational patterns,” of the source of dignity by rejecting Darwall’s understanding of dignity as ontologically prior to respect and instead appealing

⁸ Of course, the perpetrator will not only be one of the subfocuses of the reactive emotion but also its target, insofar as it is the perpetrator who is implicitly evaluated in terms of the formal object of the reactive emotion.

⁹ This account purports to resolve the worries raised in “Reactive emotions and rational patterns” concerning Darwall’s understanding of the role of dignity in the reactive emotions. For, first, the source of dignity lies in the interpersonal patterns of reactive emotions themselves and their underlying commitment to the import of the community of respect as such. Second, we should understand dignity as being relative to particular communities of respect, among which will be the community of all persons. Nonetheless, this resolution itself raises questions that I shall address later in “Dignity and communities of respect.”

to patterns of reactive emotions as simultaneously constituting both is fatally flawed. Second, given the place dignity has within morality it might seem that dignity applies fundamentally to persons as such, so that we can talk about one's standing and authority within smaller communities only in a way that derives from the dignity of persons: only persons can have such standing and authority to provide others with second-personal reasons. Once again, it may seem that Darwall is right to reject the idea that dignity is relative to any particular human community but rather attaches to persons as such. I shall take these objections in turn.

First, it is surely correct that we can be mistaken in failing to respect someone. To see how this can be accommodated in my account requires thinking more carefully about who is the subject of respect. The patterns of reactive emotions simultaneously constituting dignity and respect are not simply patterns within an individual's emotional responses, so that these patterns constitute the dignity members have *to me or to you*, as was the case for my caring about my tomatoes. Rather, these patterns are interpersonal in the sense that in feeling a reactive emotion you are calling on others to feel corresponding reactive emotions, such that their failure to do so is, other things being equal, a rational failure, indicative of a substantive disagreement between us. This means that when such a pattern is in place, the commitment to the dignity of members is not simply my commitment or your commitment; it is *our* commitment. Such interpersonal rational patterns of reactive emotions therefore constitute the dignity members have *to us in the community*, so that it is *we* who respect each other, not simply each of us individually. Of course, in responding to other community members, I may fail on occasion to exhibit such respect for others, or I may even systematically—in all occasions—fail to exhibit respect for some particular member of the community, treating her as if she had no standing in the community whatsoever. Such failures are rational failures insofar as they are at odds with the overall rational pattern of reactive emotions we exhibit: they are failures properly to respond to the dignity this person has to us as a community. In this sense, then, I ought to respond with respect to the dignity she has to us and so can be mistaken in failing to respect her.

This response, however, raises a further question about what it is for someone to be a member of the community and so to have dignity as a member—and, indeed, about what defines a particular group as a community in the first place. After all, my failure to respect someone as a member of the community may be grounded in my sense that others are mistaken in thinking that she is a member of the community, and here we need to make sense of the possibility of the community as a whole being mistaken about who is or is not a member.

I noted earlier in “Emotions and caring” that to care about something is to care about it *as* something: we don't just care about tomatoes, we care about them as delicious vegetables or as items to sell, for example. The same goes for our reverence for particular communities, by which I mean not merely that we care about them as communities of respect (for that is just to say that we revere them) but rather that we revere them as the particular communities they are: as the community of philosophers or of tennis players or of my family. This requires an understanding of that which defines the community

as such, including in particular an understanding both of the norms and expectations that are binding on its members and to which they hold each other accountable, and of the membership of the community—of who are bound by and held accountable to these norms. In part, this understanding is implicit in the pattern of emotions constituting that caring. Thus, in the case of caring about my tomatoes, my understanding of them as items to sell is implicit in the way my disappointment in the mottled appearance of a new variety of tomatoes (despite their taste) fits into the overall rational pattern of such emotions constituting my caring. Similarly, in revering this community of respect, an understanding of the norms and its membership is implicit in the overall rational pattern of reactive emotions we display, so that if through our reactive emotions we generally recognize you to have standing and authority in the community and hold you accountable to its norms, then you are *de facto* a member of this community. The same applies to the norms of the community: if through our reactive emotions we generally hold each other accountable to a particular norm, praising or blaming each other for upholding or violating that norm, then this is a norm of the community, *de facto* binding on its members.

Because an understanding of the community's membership and norms is implicit in the patterns of reactive emotions that we display and that I display as a community member, when I systematically exhibit (or fail to exhibit) reactive emotions subfocused on particular member(s) or norm(s) in ways that conflict with the overall rational pattern of reactive emotions we the community exhibit, such a conflict is between my and our commitment to import and involves at least in part a substantive disagreement over how to understand the community's membership or norms. Of course, such an understanding need not remain implicit: it can be made explicit in judgments that themselves are a part of the relevant rational patterns and so that ought to inform our reactive emotions (see "Emotions and caring"). Thus we can articulate criteria for membership or communal norms (as well as the overall practices or way of life these norms define), thereby making explicit the understanding of the community under which we revere it. Such articulations can then lead to arguments, discussions, and potentially resolutions (or persisting rifts) in our joint understanding of the community.

I cannot here enter into a detailed discussion of how such arguments or resolutions can proceed and so cannot present a definitive answer to the question raised earlier about how not just an individual but we the community more generally can be mistaken about who is a member of the community and so has dignity as such. Nonetheless it is worth making two points. First, in arguing that rational patterns of emotions, desires, and judgments constitute import, I am not arguing that the evaluative attitudes (of caring, valuing, loving, respecting, etc.) are ontologically prior to the import their common focus has. Rather, the evaluative attitudes and import are ontologically on a par, with neither prior to the other. In particular, such a lack of ontological priority leaves open the possibility both that what we ought to respect depends on the dignity things in fact have, and that the dignity things in fact have depends on what we ought to respect. Such a circle of dependency need not be vicious precisely because of the lack of ontological priority.

Second, we should not think that the process of joint deliberation and argument that potentially leads to a new understanding of a particular community of respect is one that ought to take place solely at the level of judgments, to which one's reactive emotions simply ought to conform. In general, one's evaluative judgments are not simply rationally prior to one's emotions, and the reactive emotions will have an ineliminable role to play in this process of joint deliberation. For, as I have argued elsewhere (Helm, 2001), particular judgments can be revealed as irrational precisely because they fail to fit into the overall pattern of emotions, desires, and other judgments constituting import. Indeed, such a failure can indicate that a person's considered judgments do not articulate his own understanding of the matter. Thus Huck Finn, in respecting the slave, Jim, and so feeling him to have dignity through his trust, appraisal respect, responses of guilt to Jim's disapprobation of him, etc., thereby understands Jim to be, and to have dignity as, a member of some community of respect, even though he simultaneously judges that Jim, as property, does not merit that respect and is not a community member (Twain, 1885, in particular ch. XVI).¹⁰ For in Huck's case we find it difficult to think that he really believes the judgments he sincerely makes precisely because of his conflicting emotions and motivations, leading us to think that Huck really disagrees with other members of the community in his understanding of its membership.

Together, these two points suggest that in giving an account of how a community of respect (and its membership and norms) ought to be understood and so of who really has dignity as a member of such a community, we cannot ignore the rational interconnections between the reactive emotions and evaluative judgments that constitute our reverence and respect.¹¹

This brings me to the second objection concerning whether dignity is intelligibly relative to particular communities, as I have claimed. For dignity seems to be something someone has just because she is a person, and not because she belongs to any particular community. However, this objection presupposes that what it is about someone that makes her be a person is intelligible independent of her membership in any particular community, and it is precisely this presupposition that I want to question. On my account, the relevant sort of community is a community of respect, and "belonging" to this community just is a matter of having the standing or authority to make claims on (and so to praise and blame) others in light of communal norms, as well as to be an appropriate object of others' claims and criticism. In short, to have dignity as a person just is to "belong" to the community of all persons.

This is not a trivial claim, for it is a substantive claim about what it is to be a person that provides a promising route to an account of meta-ethics. To be a person is to have dignity

¹⁰ In *The Adventures of Huckleberry Finn*, Twain presents Huck as emotionally conflicted, feeling the pangs of conscience no matter what he does with respect to Jim's freedom. In describing Huck the way I do, therefore, I am paying selective attention to certain passages of the book and ignoring others. Such selective interpretation does not affect the philosophical point.

¹¹ For details of how such an account can play out in other contexts, see Helm, 2001 (in the case of personal values) and Helm, 2010 (in the context of interpersonal values within loving relationships).

as a member of the community of persons, a community whose defining membership and norms—including moral norms, binding on all persons as such—are at stake in the community's understanding of itself. Consequently, an understanding of what it is to be a person—of just which creatures are persons and of what norms are binding on persons—will be at least implicit in the patterns of reactive emotions and evaluative judgments we exhibit, patterns that make intelligible the possibility of substantive disagreement, debate, and resolution as we jointly refine that understanding. Whether this is correct or not remains to be seen.

Conclusion

I have been arguing that the reactive emotions are collective emotions not because we non-accidentally share them with others, as on the shared emotion model, nor because in some sense *we* feel them jointly, as on the plural subject model. Rather, the reactive emotions are collective emotions in part because they essentially form interpersonal rational patterns that define both (a) our joint evaluative attitudes of reverence for the community and of respect for each other and (b) those very communities themselves as communities of respect. Yet the reactive emotions are collective emotions in a stronger sense. For a creature is intelligible as having the capacity for reactive emotions (such as trust, resentment, or gratitude) as opposed to non-reactive analogs (such as expectant hope, anger, or being pleased) only because these emotions are rationally interconnected with those of others, calling on them to respond with their own appropriate reactive emotions as a way of holding each other accountable within a community of respect. Consequently, one can acquire the capacity for reactive emotions only from within a community of respect, as a member of such a collective.

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Section 2

Collective emotion in face-to-face interactions

Chapter 5

Insights into collective emotions from the social neuroscience of empathy

Claus Lamm^a and Giorgia Silani^b

^aUniversity of Vienna and ^bInternational School for Advanced Studies (SISSA-ISAS)

It might not be smart to start with a negative statement, but let's face it: social neuroscience has so far not been able to make substantial contributions to our understanding of collective emotions. This lack of insights by no means stems from a lack of interest in this fascinating phenomenon. The suspected culprits rather are conceptual and methodological constraints of this emerging discipline, which despite carrying the word "social" in its name focuses on uncovering and describing the intra-individual contributions to interpersonal phenomena. Such an approach may be limited for unraveling a phenomenon that in its very definition requires taking into account collective rather than individual processes. Nevertheless—and here comes the positive—the present chapter aims to trigger a discussion on how understanding the neurocognitive and neuro-affective mechanisms of representing the affective states of others might help to increase our knowledge about phenomena such as collective emotions. More specifically, our aim is to provide scholars who are experts in collective emotion research with a starting point for making connections between their and our field of research.

In order to achieve this goal, recent progress in research on the neural and biological underpinnings of empathy and affective sharing will be reviewed. Empathy is considered important for collective emotions as the ability to share (and ultimately understand) our conspecifics' affective states not only facilitates interpersonal communication and interaction, but also enables us to predict the actions, intentions, and feelings of others in both imagined and real situations. This ultimately provides us with a better understanding of the past, present, and future affective states and the associated behaviors of the people around us, which in turn might facilitate a collective coordination of these states and behaviors.

Social neuroscience is a relatively new subdiscipline of neuroscience which tries to improve our understanding of the processes and mechanisms enabling us to successfully navigate a sometimes tremendously complex social world. To this end, social neuroscience employs methods traditionally used in cognitive neuroscience (predominantly neuroimaging methods such as functional magnetic resonance imaging (fMRI), electroencephalography (EEG), or transcranial magnetic stimulation (TMS), but increasingly

also psychopharmacological, psychoneuroendocrinological, and genetic methods) to investigate phenomena that have traditionally been investigated by (experimental) social psychologists, but also by related disciplines in the behavioral social sciences (Decety & Keenan, 2006).

The chapter has been divided into four main parts. At the outset, we discuss various definitions of empathy and related terms, and provide our own perspective on how empathy is understood within the current chapter. In parts two and three, current evidence from social neuroscience studies of empathy will be selectively reviewed. At the end of the chapter, we speculate how the different aspects and mechanisms of empathic responses as described by social neuroscience might be relevant for understanding the emergence and regulation of collective emotions.

What “is” empathy?

Empathy’s linguistic roots lie in the Old Greek “empatheia” (passion), which is composed of “en” (in) and “pathos” (feeling). At a basic phenomenological level, empathy denotes an affective response to the directly perceived, imagined, or inferred emotional state of another being (for an excellent overview of how “empathy” has been defined and conceptualized, see Batson, 2008). In our own understanding, empathy requires the engagement of two key components. The first component is sharing the other person’s affect. More precisely, an empathic response requires that an individual’s (referred to as the *observer*) perception or imagination of someone else’s (the *target*) affective state triggers a feeling in the observer that is partially isomorphic to what the target is feeling. Second, and equally important, the observer has to be aware at any point in time that the source of his or her feelings is the target. This stresses the central importance of the capacity for self/other distinction, which is the ability to distinguish between mental and bodily representations related to the self or to the other (de Vignemont & Singer, 2006; Decety & Lamm, 2006; Singer & Lamm, 2009). In a computational sense, therefore, empathy could be regarded as enabling a (usually impartial) “copy” (“feeling with/as”) of the target’s emotional state by the observer, with full awareness of which are the “copied” parts and which parts originate in the observer him- or herself.

In order to avoid confusion with other terms, some conceptual clarifications are needed.

Fig. 5.1 illustrates five key concepts related to empathy, which can occur in a chain of events originating from motor mimicry and ultimately result in prosocial behavior. Although these variables and terms each refer to a different phenomenon, they usually occur in concert and are connected to each other in a sequential and probabilistic manner. In many cases, in particular if directly confronted with emotional expressions of a target person, mimicry and emotional contagion precede empathy, which likely results in empathic concern and compassion, and in turn might result in prosocial behavior (see Hess, Houde, & Fischer, Chapter 7, this volume, for a discussion). For example, witnessing another person expressing pain on their face has been shown to result in mimicking of this expression and a contagious and partial sharing of the painful state (e.g., Lamm,

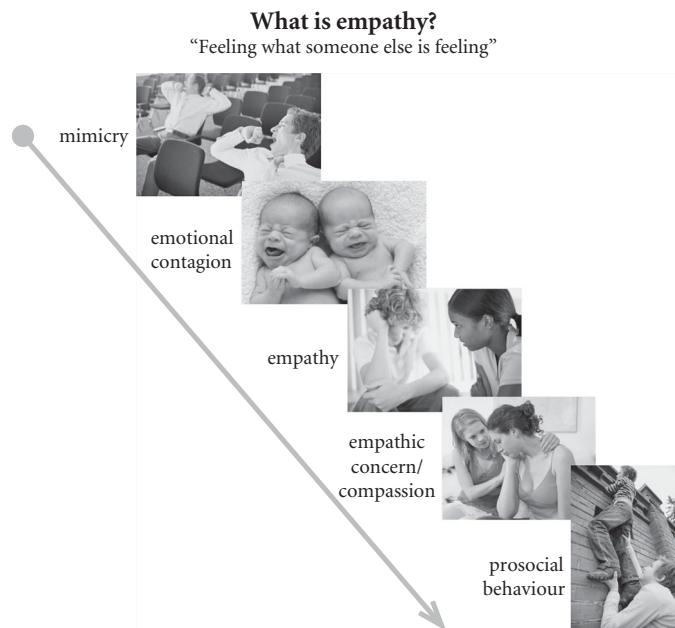


Fig. 5.1 Illustration of five key terms related to empathy, ranging from mimicry to prosocial behavior. Left to right: © Image Source/SuperStock; © [Istockphoto.com](#); © PhotoAlto/Alamy; © [ispstock/Fotolia](#); © LOOK Die Bildagentur der Fotografen GmbH/Alamy.

Porges, Cacioppo, & Decety, 2008; Sonnby-Borgstrom, 2002). If the observer becomes aware of his or her emotional response and that its source is located in the other person, this initial emotional response results in a full-blown empathic response. Depending upon the context and the observer's emotion-regulation capacities, this empathic sharing might motivate other-related motivational states such as empathic concern or compassion, which are known to be conducive to prosocial behavior (e.g., Batson, 1991; Lamm, Meltzoff, & Decety, 2007).

Motor mimicry describes our tendency to automatically synchronize our movements with those of another person, and there is considerable evidence that perceiving a target's affective facial expressions activates the corresponding facial muscles in the observer (see Dimberg & Oehman, 1996, for review). A weak correlation between the strength of such mimicry responses and trait measures of empathy has also been found (Sonnby-Borgstrom, 2002). While this has been taken as evidence that motor resonance may increase empathy in an automatic and sensory-driven fashion, more critical accounts have contested this conclusion and stress the role of mimicry as a social signal which increases rapport and fondness between self and other (Chartrand & Bargh, 1999; van Baaren, Horgan, Chartrand, & Dijkmans, 2004). We propose that motor mimicry might subserve both functions and support a virtuous circle sustaining smooth social interactions (Heyes, *in press*), where overt signals of sharing another person's emotional states will in turn result in increased resonance and rapport of that other person.

Emotional contagion is another concept which is strongly relevant yet clearly distinct from empathy (see Hess et al., Chapter 7, this volume; Hatfield, Carpenter, & Rapson, Chapter 8, this volume). It denotes the tendency to “catch” other people’s emotions and has also been labeled as “primitive empathy” (Hatfield, Rapson, & Le, 2008; Hatfield et al., Chapter 8, this volume) or as “affective empathy” (de Waal, 2008). The latter term has been used particularly often in comparative research where the quest for vicarious emotional responses in non-human animals, including rodents, canines, or apes, has so far generated evidence that our ancestors show vicarious responses similar to those of humans. However, given that self-awareness might not be as highly developed in non-human animals these responses should rather be labeled as emotional contagion than as full-blown empathic responses (e.g., Ben-Ami Bartal, Decety, & Mason, 2011; Preston & de Waal, 2002). Notably, even in humans, babies start crying in response to distress calls of other babies long before they develop a sense of a self that is separate from others. This sense only emerges around the age of about 12 months, when children also start to show first signs of other- rather than self-related vicarious responses and behaviors (Hoffman, 2000). Taken together, motor mimicry and emotional contagion might in many instances be important antecedents of empathy, but in general should neither be regarded as necessary nor as sufficient processes for the experience of empathy.

With respect to the consequences of vicarious emotional responses, we need to separate empathy from sympathy, empathic concern, and compassion. In all four cases, affective changes are induced in the observer in response to the perceived or imagined affective state of another person. However, only during the experience of empathy do we see vicarious responses that are unaffected by the observer (in the sense of the “copied state” or “feeling with/as” referred to earlier), while sympathy, empathic concern, and compassion carry additional “feeling for” processes originating in the observer. For example, interacting with a sad person in the case of empathy will be associated with a state of sadness in the observer that is similar to the one of the target. Sympathy, empathic concern, and compassion, however, will be characterized by additional feelings, such as concern about the target’s welfare or the strong wish for alleviating his or her suffering. These processes are the outcome of the interaction between observer and target, but go beyond what the target is actually feeling. The main distinction between empathy and terms such as sympathy, empathic concern, and compassion is therefore whether the observer’s emotions are inherently other-oriented (“feeling for”; compassion, sympathy, empathic concern) or whether they reflect affective sharing in the sense of “feeling with/as” (empathy) the other person.

Finally, many accounts of empathy (Batson, 1991; de Waal, 2008) relate its occurrence to prosocial, other-oriented motivations (i.e., a motivation with the goal to increase the other person’s well-being or welfare or to forego egoistic, self-related benefits for the benefits of others). In our understanding of empathy as “feeling with” another person, this is not necessarily and always the case as empathy in its purest form simply enables us to feel as accurately as possible what others are feeling, without any sort of valuation attached to these feelings. Whether this then has prosocial, antisocial, or neutral consequences

is the result of other variables, including other social emotions (such as envy or guilt), as well as acquired behavioral tendencies, moral values, or the personal relationship between observer and target (which if competitive can even result in counter-empathy; e.g., Lanzetta & Englis, 1989; Yamada, Lamm, & Decety, 2011). Notably, while consistent evidence for the link between “feeling for” (empathic concern, compassion) and prosocial behavior exists (e.g., Batson, 1991; Eisenberg, 2000; Eisenberg et al., 1989), a clear-cut empirical demonstration of a link between empathy as “feeling-with” and prosocial behavior is still missing.

Finally, it is important to note that other scholars in social neuroscience as well as in social psychology have focused on cognitive or inferential aspects of empathy that do not include affective sharing as a core component, but rather focus on the mechanisms involved in what is called empathic accuracy—which is the ability to correctly label and quantify the emotions felt by a target (e.g., Zaki & Ochsner, 2012). These aspects of empathy are not within the scope of the present review.

The neural bases of empathy—a core network of shared affect

Neuroscientific empathy research has been dominated from the beginning by the claim that we come to understand the actions, sensations, and emotions of others by the activation of neural representations corresponding to those states in ourselves. This claim has been inspired by perception-action models in the domain of action understanding (Prinz, 2005), and the discovery of mirror neurons. These are neurons which fire both when a macaque monkey executed an action as compared to when it observes its execution by others (Rizzolatti & Craighero, 2004). In their highly influential paper, Preston and de Waal (2002) proposed a neuroscientific model of empathy suggesting that observing or imagining another person in a particular emotional state automatically activates a representation of that state in the observer, along with its associated autonomic and somatic responses. Notably, though, this shared representations account should more precisely be called a “shared neural activations” account, since the conversion of neural activations as the trading unit of neuroscience methods to the psychological domain of representations is by no means as clear as we would like it to be.

In order to empirically test whether shared activations also existed in the affective domain, Singer and colleagues (Singer et al., 2004) recruited couples and used fMRI to measure neural responses triggered by painful stimulation of the female partner via an electrode attached to her right hand. In other trials, the same painful stimulation was applied to their male partner. Differently colored cues presented on a screen indicated which of them would receive painful stimulation, or a non-painful control stimulus. This procedure resulted in measurements of brain activation when pain was applied either to the scanned subject (first-hand experience of pain) or to her partner (empathy for pain). Notably, the use of abstract symbolic cues instead of overt emotion displays (such as facial expressions, or other bodily signals) enabled the researchers to specifically investigate

empathic responses that were independent of mimicry and emotional contagion. As a result of this setup, it could be demonstrated that brain areas which were involved in the first-hand experience of pain were also activated when participants saw a signal indicating that their loved one would experience pain. These areas—in particular, the bilateral anterior insula (AI), the medial cingulate cortex (MCC), brainstem, and the cerebellum—are involved in the processing of the affective-motivational component of pain. In other words, they encode how unpleasant or aversive the subjectively felt pain is.

This initial report of overlapping neural activations between self and other has since then been replicated many times and findings were extended by numerous other experiments using a variety of paradigms and methods. Two recently and independently performed meta-analyses (Fan, Duncan, De Gruyck, & Northoff, 2011; Lamm, Decety, & Singer, 2011) provide converging evidence that empathizing with others consistently activates a neural network involving the bilateral (dorsal) anterior insular cortex and the anterior medial cingulate cortex. Notably, these meta-analyses not only analyzed data stemming from paradigms such as those used by Singer and colleagues (2004), but also from paradigms in which the emotional state of a target was conveyed to participants by means of pictures (such as body parts in painful situations), videos (displaying painful situations or facial emotion expressions), or narratives. Furthermore, the finding for a core neural network related to empathy does not only hold for the domain of pain, as some studies entering these meta-analyses also assessed vicarious responses to emotions such as disgust and sadness (e.g., Jabbi, Bastiaansen, & Keyers, 2008; Wicker et al., 2003). However, given the scarcity of experiments assessing vicarious responses to positive emotions (e.g., Jabbi, Swart, & Keyers, 2007), it is less clear whether the core network of empathy is restricted to the sharing of unpleasant affect. In fact, given that positive affect is usually associated with other brain areas, such as the ventromedial prefrontal cortex (e.g., Rolls, 2004), this might not even be expected in light of the shared activations account.

What is it, though, that is encoded or processed in shared activation areas such as the anterior insula and the medial cingulate cortex? It has been suggested that these regions represent a crucial part of the human interoceptive cortex (Craig, 2003, 2009) and subserve neural representations of internal bodily states such as information about temperature, lust, hunger, bodily arousal states, and information from the gut (Craig, 2002, 2003; Critchley, 2005; Critchley, Wiens, Rotshtein, Ohman, & Dolan, 2004; Damasio, 1994). Based on anatomical observations in non-human species as well as on accumulating evidence from neuroimaging, it has been suggested that the main function of insular cortex is to generate a moment-to-moment representation of our bodily and therefore also affective states. Adding to this the observation from empathy research that the very same structures (AI and MCC), which are crucial in representing one's own subjective feeling states, also seem to be crucial in processing the feelings of others, a forward model of (in particular) insular function has recently been proposed (Singer, Critchley, & Preuschoff, 2009). This model suggests that cortical re-representations of bodily states in the AI may have a dual function. First, neural networks in the AI are involved in subjectively

representing our own feelings, which will not only allow us to understand our own feelings in the present moment, but also to predict the bodily effects of anticipated emotional stimuli to our bodies. Second, they may serve as the visceral correlate of a present or prospective simulation of how something may feel to others. This may then help us to understand the emotional significance of a particular stimulus and its likely consequences (see also Lamm & Singer, 2010). Support for this model comes, amongst others, from clinical investigations of the subclinical phenomenon of alexithymia which indicates deficiencies in understanding, processing, or describing one's own emotions. Interestingly, people with such deficiencies do not only show reduced activity in the AI when directly experiencing emotions, but also when empathizing with those of others (Bird et al., 2010; Silani et al., 2008).

The observation of similar neural activations during the first-hand versus the vicarious experience of various sensations and emotions (e.g., disgust, taste, pain) raises the question whether these activations can indeed be interpreted as shared representations. Shared *activations* are certainly a good indicator of shared *representations*. However, as already stated, we do not yet know or have good principled models of how observations on one level of description and measurement (the psychological/representational level) are mapped onto those on another (the neural level)—as this is basically one of the major motivations for research in human neuroscience. In addition, none of the currently available human neuroimaging methods directly measures activity of single neurons or neural networks. Therefore, two fMRI activation maps with overlapping clusters might still result from activations in entirely different neural networks. In an attempt to go beyond this limitation, Corradi-Dell'Acqua, Hofstetter, and Vuilleumier (2011) recently proposed a very elegant approach. In their fMRI study, they used multivariate pattern classification to predict hemodynamic activation patterns during empathy for pain from activation patterns classified when the participants had to undergo direct painful stimulation. Their results seem to indicate that neural activation patterns during self-related pain are indeed able to predict activation patterns during empathy for pain, but that this is restricted to a more posterior part of anterior insular cortex than the one identified in the “core network” of empathy. In contrast, activation in the more anterior subdivisions might not be specifically related to the painful experience as such, but to general purpose processes associated with aversive experiences (and probably also their salience; see Valentini & Koch, 2012).

In sum, while substantial empirical evidence suggests that shared neural activations are at the root of sharing other's feelings, sensations, and actions (see Bastiaansen, Thioux, & Keyers, 2009), additional research is required to clarify at which level of specificity these activations are shared on the neural level, and what constitutes the functional significance of these shared activations. More sophisticated experimental designs, including pharmacological manipulations, but also closer collaborations between philosophers of mind, cognitive scientists, and social neuroscientists helping to bridge the gap from neural to the mental world are required to yield more detailed answers to these questions.

Distinct mechanisms enabling the activation of the core network of empathy

Earlier concepts regarded empathy predominantly as the result of an automatic, “hard-wired” instigation of vicarious responses which could even be triggered without conscious awareness. For example, in many initial studies of empathy participants were not even informed that the goal of the study was to investigate empathy-related neural responses, but passively watched a scene or movie depicting a person expressing an emotion or being touched (Blakemore, Bristow, Bird, Frith, & Ward, 2005; Keysers et al., 2004; Singer et al., 2004; Wicker et al., 2003). Nevertheless, this situation alone was sufficient to engage brain networks representing the first-hand experience of affect or touch. Some authors have therefore suggested that we automatically share other people’s feelings, a hypothesis which is in line with the earlier-mentioned perception-action models of motor behavior and imitation (Gallese, 2003; Preston & de Waal, 2002). “Automaticity” in this case refers to a process that does not require conscious and effortful processing, but can nevertheless be inhibited or controlled (cf. Bargh, 1994).

Several studies now clearly demonstrate that empathy is by no means an automatism. For example, empathy-related activations in the core network of empathy have been shown to be reduced and even absent if participants were given a task used to detract their attention to the emotional situation of the target (Gu & Han, 2007; Lamm, Meltzoff, & Decety, 2010). Part of this line of research was also motivated by attempts to consider explicitly that in everyday life we are certainly not always in synchrony with others’ emotions, but that in many cases remain neutral or even show opposing emotional states. This line of reasoning and its empirical scrutiny has ultimately resulted in models of empathy that assign an equally important role to top-down regulatory and meta-cognitive processes as to the sensory- or bottom-up driven components (see Fig. 5.2). Most contemporary neuroscientific models of empathy endorse this view and stress the importance of top-down control and contextual appraisal for either the generation of an empathic response or for modulating an existing one induced by the above-mentioned bottom-up processes (de Vignemont & Singer, 2006; Decety, 2005; Decety & Lamm, 2006; Hein & Singer, 2008; Singer, 2006).

Decety and Lamm (2006), for example, proposed a model in which bottom-up (i.e., direct matching between perception and action) and top-down (i.e., regulation, contextual appraisal, and control) information processes are fundamentally intertwined in the generation and modulation of empathy. In this model, bottom-up processes account for direct emotion sharing which is automatically activated (unless inhibited) by attended perceptual input. On the other end, executive functions implemented in the prefrontal and cingulate cortex serve to regulate both cognition and emotion through selective attention and self-regulation. This meta-cognitive level is continuously updated by bottom-up information, and in return controls the lower level by providing top-down feedback. Thus, top-down regulation, through executive functions, modulates lower levels and adds flexibility, making the individual less dependent on external cues. The meta-cognitive

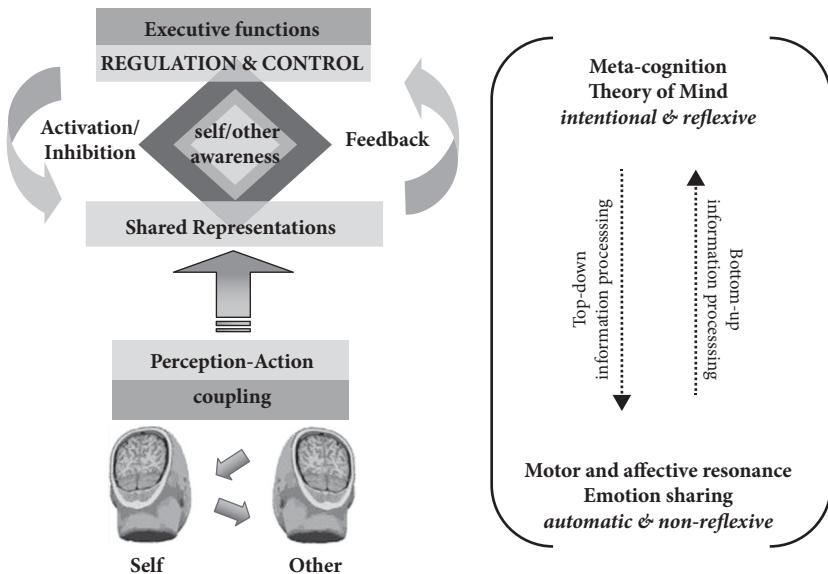


Fig. 5.2 A heuristic model outlining the various components and processes involved in empathic experiences and their regulation (reprinted with authors' permission from Decety & Lamm, 2006). Copyright © 2006 Decety, J., and Lamm, C.

feedback loop also plays a crucial role in taking into account one's own mental competence in order to react (or not) to the affective states of others.

Several recent findings provide strong support for top-down influences on empathy, and that there are many distinct routes to trigger responses related to affective sharing in the core network of empathy. For example, the meta-analysis by Lamm and colleagues (2011) exploited the fact that different experimental paradigms had been used in the literature to investigate the hemodynamic correlates of empathy for pain. One class of studies (originating from the paradigm used in Singer et al., 2004) had used a “cued-based” approach in which, as outlined earlier, participants were informed about the affective state of the targets by abstract symbolic cues. This type of paradigm therefore required participants to use the information conveyed by the cue to infer the consequences for the target, whose overt affective responses could not be observed directly. In contrast, experiments using so-called “picture-based” paradigms exposed participants to stimuli of targets in painful situations, such as getting their hand or foot jammed in a door or undergoing surgical procedures on their hands. This setup was supposed to trigger empathic responses by means of a more direct, sensory-driven mechanism relying upon action understanding and perception-action coupling. These differences between paradigms indeed mapped onto different neural structures. While the cue-based paradigm activated brain areas such as the ventro-medial prefrontal cortex, the temporo-parietal junction, and temporal poles, which are related to theory of mind and inferring the mental states of others to a stronger extent, studies using the picture-based approach revealed stronger responses

in cortical areas classically associated with motor resonance and action understanding, such as inferior parietal and frontal cortex. Interestingly, this dissociation of processes is very well in line with a recent meta-analysis (Van Overwalle, 2011) which also showed a similarly distinct involvement of brain structures in using theory of mind vs. action understanding for understanding the mental states of others.

In addition to uncover the neural computations underlying social cognitive and affective phenomena, there are increasing attempts in social neuroscience to link these phenomena to actual social behavior (such as cooperation, competition, or pro- vs. anti-social behavior). The ultimate goal of this type of research is to use information about the brain to achieve a better understanding of not only how we react to others and represent them in our own mind, but also of why and how we decide and behave in the way we do. The most compelling question with respect to the area of empathy research is how empathic responses are linked to prosocial behavior, such as helping others in need or foregoing egoistic benefits for the sake of another person's welfare. In one study, it was shown that the neural responses in dorsal anterior insula are positively correlated with costly helping behavior, which was measured as taking over a painful shock of another participant (Hein, Silani, Preuschoff, Batson, & Singer, 2010). This finding was later confirmed by showing that electrodermal responses, as a measure of affective arousal, have a similar positive relationship to costly helping (Hein, Lamm, Brodbeck, & Singer, 2011). In addition, the latter study added that it is not only the vicarious arousal response during empathy for pain which increases helping, but that it also matters how closely this response resembles one's own response when perceiving a painful shock. Recent findings suggested that the dorso-medial prefrontal cortex, an area associated with more cognitive other-related processes, such as adopting the perspective and understanding the mental states of others (for instance, their intentions and beliefs), is also correlated with prosocial actions such as monetary donations or investing time to support others in need (Rameson, Morelli, & Lieberman, 2012; Waytz, Zaki, & Mitchell, 2012). Taken together, these initial investigations suggest that the link between empathy and prosocial behavior can be subserved by bottom-up driven affective and top-down driven cognitive mechanisms in a similar vein as the empathic responses themselves. Future work, however, will need to identify the neural and psychological mechanisms as well as the social-contextual conditions under which empathy in the sense of a vicarious experience of another person's affect transforms into empathic concern—which based on extensive work in social psychology is known to show a moderate correlation with prosocial behavior (e.g., Batson, 1991)—and whether there is also a direct link of empathy to prosocial behavior.

From the social neuroscience of empathy to collective emotions

In this last section, we aim to identify some areas of research and scientific reasoning that might connect the insights already reviewed to the phenomenon of collective emotions. These are the importance of self/other distinction in social interaction, and the flexible

modulation of both social and non-social emotional experiences by automatic and controlled processes.

As outlined earlier, full-blown empathy requires the observer to track the “author” of the emotions felt in him- or herself. Whenever such tracking is lost, the observer might enter a state of emotional contagion, where he or she is not aware of the fact that the emotions he or she is experiencing have been instigated by others. This lack of self-awareness and self/other distinction is one putative mechanism of collective affective experiences such as the high synchrony between individuals that occurs during mass phenomena, such as at music concerts or at political demonstrations. There, the individual becomes part of a larger crowd, and loses his or her ability for self-awareness and self/other distinction. Fostering the ability of self-awareness might therefore be one mechanism to inhibit collective emotions in cases when they are detrimental to a society’s or a group’s welfare—such as when the collective emotion might result in acts of violence or motivate the infliction of harm in other groups. Conversely, deliberately lowering self-awareness might help to promote collective experiences in cases when they are advantageous or desired (such as during peaceful political movements, or the mundane case of a joint festivity or celebration). Interestingly, neuroscientific findings indicate that self/other distinction has both a perceptual and an action regulation component. More specifically, areas in the right temporo-parietal junction seem related to the sensory detection of a mismatch between self- and other-related perceptual, mental, affective and cognitive representations. In contrast, areas in the dorsal and anterior medial prefrontal cortex seem involved in regulating action tendencies that allow the observer to overcome being influenced too strongly by the other—in particular in cases when there is a mismatch between one’s own action intentions or affect and those of the other (e.g., Brass, Ruby, & Spengler, 2009; Lamm, Nusbaum, Meltzoff, & Decety, 2007; Lamm et al., 2010; Silani, Lamm, Ruff, & Singer, 2013).

The investigation of empathy by social neuroscience has documented the flexibility of the human mind in responding to others and also showed that our emotional responses to others are not an all-or-none phenomenon. A key aspect for understanding collective emotions might therefore be the flexible interplay between automatic and controlled processes, which is also one of the key concepts used to understand the cognitive, emotional, and social processes supporting social behavior in general (Lieberman, 2007). The ability to regulate our emotions and the ensuing behavioral responses also reminds us that all emotion theories in psychology and neuroscience stress that cognition plays a crucial role for all types of affective experiences (e.g., Rolls, 2007). In these theories, emotions are not only what they are according to many folk psychological concepts—a feeling state—but at the core of their concept also contain cognitive, behavioral, and bodily-physiological components. In the domain of cognition, so-called executive functions (such as response inhibition or executive control) as well as appraisal processes (which in a way “evaluate” the occurring bodily and feeling responses taking into account situational and contextual variables) are important to understand the occurrence and persistence of emotional states.

In order to understand the phenomenon of collective emotions, it is therefore also important to understand how such mostly intentional and reflexive processes interact with feelings and physiological responses that are instigated mostly automatically, sensory-driven, and pre-reflexively. This is not to say however that the latter processes should be disregarded. After all, the origin of the word emotion (from *ex* and *motio*) reminds us that a crucial function of emotions is to induce behavioral tendencies and to prepare the organism to act upon them. It is interesting to note that some scholars have even argued that emotions are a type of “natural force” which is able to activate our reasoning, our body, and our behavior, and that this force is especially powerful and sustainable when activated in a collective fashion (Ciompi & Endert, 2011). In conclusion, taking into account both the cognitive, controlled, and the more automatic, affect-related components of collective emotions will likely enable a better understanding of the coordinated mass behaviors that are one of the most fascinating facets and effects of collective emotions.

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Chapter 6

Neurocognitive mechanisms of attentional prioritization in social interactions

Tobias Brosch

University of Geneva

Our environment constantly presents us with a rich flow of continuously changing information: each second, about 11 million bits of visual, auditory, tactile, olfactory, and gustatory stimulus input enter our senses (Zimmermann, 1989). As the capacity of our brain is limited, not all information can be processed and evaluated in detail (Marois & Ivanoff, 2005). However, in order to successfully negotiate a complex world and adequately respond to its challenges, it is important that we rapidly detect important information and prepare adaptive responses. This feat is accomplished by multiple attention systems, which filter the stream of incoming information and select the most relevant subset of stimuli for more in-depth processing (Brosch, Pourtois, Sander, & Vuilleumier, 2011; Driver, 2001). Attentional selection can be driven by several different factors, such as low-level features of a stimulus (e.g., high-intensity, *exogenous attention*) and factors related to the observer (e.g., current goals or expectations, *endogenous attention*). Furthermore, the emotional relevance of a stimulus for the motivational concerns of an individual is an important factor for attentional selection (*emotional attention*, see Vuilleumier & Brosch, 2009, for a review).

Humans are the “social animal,” essentially living and operating in complex, affectively charged social environments. Living in a large social group provides many benefits, such as protection from enemies and the opportunity to learn from others, but also some dangers, such as potential aggression and competition from group members (Emery, 2000). As a consequence, interactions with others are highly relevant for our well-being and survival. Given the high relevance of social interactions, it is adaptive to prioritize social information that may help us to better negotiate such interactions. One of the most important sources of social information is the human face. The face conveys an impressive variety of socially relevant information, about relatively stable features such as ethnicity, age, or gender, but also about more malleable features such as the emotional state or the current intentions of a person (Calder, Rhodes, Johnson, & Haxby, 2011). For example, signals conveyed by changes in someone’s facial expression, such as a brief frown or a smile, can be predictive of hostile or friendly behavior, and thus are crucial in determining and

preparing appropriate responses. Rapid attentional prioritization of such signals would thus be highly adaptive, and indeed, a large number of studies have demonstrated prioritized attentional selection of socio-affective information in the face (but also in voice and body). Not only do we have the capacity to rapidly orient our attention toward relevant social others, but we are also able to infer the focus of others' attention using information from their eye gaze, and then shift our attention to the same location. This capacity for joint attention enables us to automatically share information about the relevance of external stimuli during a social interaction.

In this chapter, I will provide an overview of how brief affective signals about the emotional state, intentions, and interests of social interaction partners modulate our attention and perception and discuss how this might contribute to collective emotions. To begin, I will summarize research on the mechanisms underlying attention selection in general. I then highlight the special role of socio-affective information in attention and perception. I will focus on two complementary neurocognitive mechanisms involved in social interactions: (1) attentional capture by socio-affective information, and (2) joint attention: using others' eye gaze to direct one's attention.

Neurocognitive mechanisms of attentional selection

To allow for a rapid and efficient analysis of important information in the environment, multiple attention systems serve to select a subset of all incoming stimuli for in-depth processing and preferential access to awareness and behavior control (Driver, 2001). At the behavioral level, attentional selection leads to perceptual enhancements such as faster stimulus detection or increased contrast sensitivity, which are due to a more robust neural representation of the attended stimulus at the neural level. Research in cognitive psychology and cognitive neuroscience has isolated several distinct subprocesses that are related to different functional selection criteria and are implemented by overlapping, but partly different neural substrates. *Exogenous attention* refers to attentional prioritization based on the intrinsic physical salience of sensory inputs, for example due to stimulus intensity, color, or size (Egeland & Yantis, 1997). Experimentally, exogenous attention selection can be demonstrated using the exogenous cueing paradigm (Posner, 1980, see Fig. 6.1a), where participants have to indicate the location of a target that appears either at the same location as a previous exogenous cue (e.g., a bright flash) or at the opposite location.

Participants reliably show faster responses when the target appears at the same location as the previous cue. This increase in response speed reflects attention capture by the exogenous cue toward its location, which then facilitates detection of the target. Importantly, the cue is non-predictive of the target location, in 50% of the trials the target replaces the cue, and in 50% it appears at the opposite location. This means that participants have no incentive to voluntarily attend to the cue, as it does not help them with their overall task performance. Exogenous attention capture thus occurs reflexive and involuntarily. *Endogenous attention*, in contrast, refers to a voluntary process initiated by implicit or explicit expectations for a specific object or location (Desimone & Duncan, 1995). This

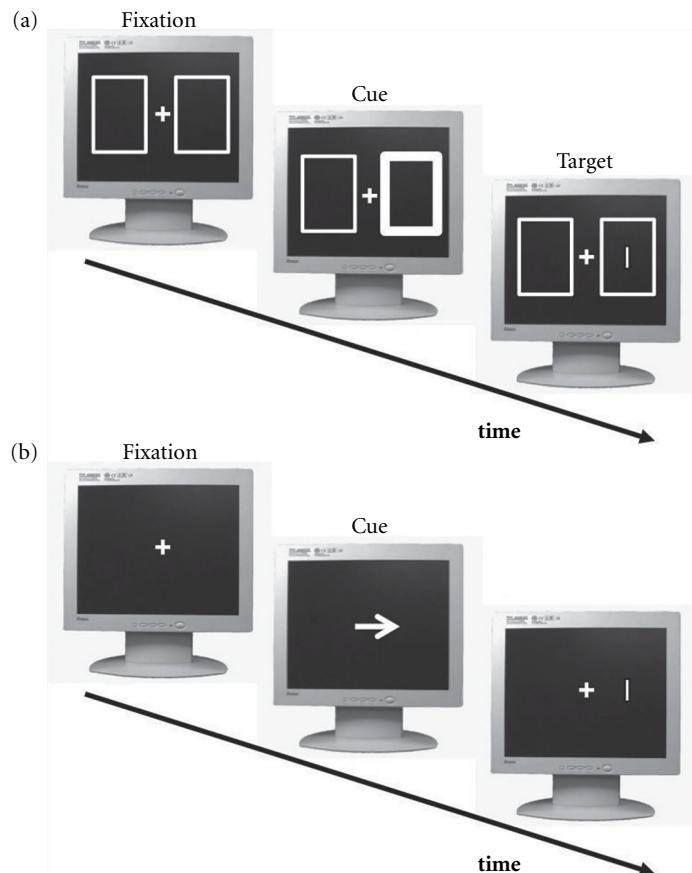


Fig. 6.1 Attentional cueing paradigms from cognitive attention research showing (a) exogenous attention capture by low-level stimulus intensity, and (b) endogenous attention shifts by symbolic arrow cues.

process selects stimuli that are important for the current behavioral goals of the organism. For example, imagine you need to find your car keys. You will thus intentionally attend to locations where you usually leave the keys, or attend to all objects whose color and size match your keys. In a controlled experimental environment, this form of attentional selection can be demonstrated using the endogenous cueing task (Posner, Snyder, & Davidson, 1980; see Fig. 6.1b). This task is similar to the previously presented exogenous task, with one important difference: in this paradigm, a centrally presented arrow cue indicates the location where the subsequent target stimulus will probably appear. Thus, the arrow creates an expectation for a spatial location in the participants. Faster responses to targets that appear at the location indicated by the arrow reflect voluntary shifts of attention. Note that in contrast to the exogenous version of the paradigm, the cue arrow does not directly mark the location, but is symbolic and needs to be interpreted by the observer. Endogenous attention can not only be directed toward target locations, but also towards

other features of potential target objects such as shape, color, or direction of motion or even towards complete objects (Yantis, 1992). Neuroimaging work has shown that both endogenous and exogenous attention systems primarily implicate fronto-parietal cortical networks and subcortical structures such as pulvinar and superior colliculus (Corbetta & Shulman, 2002). Endogenous attention control is mainly exerted by interactions of dorsal regions such as the intraparietal sulcus (IPS) and the frontal eye field (FEF), exogenous reorienting of the attentional focus is mediated by more ventral regions in the right hemisphere such as the right ventral frontal cortex and temporo-parietal junction.

Whereas these attentional subcomponents can be dissociated experimentally and neuroanatomically, they are neither mutually exclusive nor fully independent (Yantis & Jonides, 1990). Attentional selection is always concurrently influenced by both top-down goals and bottom-up low-level stimulus properties (imagine you are searching for your keys as a loud clatter outside captures your attention). Experimentally, these more realistic situations are mimicked in the visual search task, where participants search for a target within a search grid containing varying numbers of distractor stimuli. In this task, reaction times reflect the efficiency with which a target is detected in a particular search context. Targets defined by a simple bottom-up feature such as color (for example, a red bar among blue bars) are found effortlessly and relatively independent of the number of distractors, indicating efficient parallel search. Targets that are defined by conjunctions of several features that are shared with the distractors (for example, a red vertical bar among red horizontal and blue vertical bars) require longer search times, reflecting a top-down controlled serial search process (Treisman & Gelade, 1980). In the attentional blink task (Raymond, Shapiro, & Arnell, 1992), participants are presented a series of stimuli at very high presentation rates and then have to identify one or more of these targets. Any single target can usually be reported accurately, but reporting a second target is considerably impaired when the two targets are presented within a short interval (200–500 ms). This impaired performance is thought to reflect attentional capacity limitations that restrict access to awareness.

Mechanisms of attention capture by socio-affective information

Whereas these paradigms were initially developed to delineate the operations of different attention systems using highly controlled and artificial stimuli (such as letters or arrows), they have been quickly adapted to investigate the attentional prioritization of emotionally and socially relevant information. For example, in new versions of the visual search task, participants have been asked to search for faces with different expressions, which has revealed more efficient search for emotional faces as compared with neutral faces (see Frischen, Eastwood, & Smilek, 2008, for a review). Similarly, the attentional blink deficit was shown to be greatly attenuated for faces with emotional expressions, which were reported with higher accuracy than neutral expressions when appearing as second target (Fox, Russo, & Georgiou, 2005). This indicates that important social

signals are selected preferentially from a perceptual temporal stream and have facilitated access to awareness.

One task that has been especially useful in elucidating the psychological principles and neurocognitive mechanisms underlying the effects of socio-affective information on attention is the dot probe task (MacLeod, Mathews, & Tata, 1986, see Fig. 6.2a). In this task, participants must detect a target that replaces one of two simultaneously presented cues. One of these cues may, for example, be a face with an emotional expression, the other one a face with a neutral expression. Importantly, the cues are equated on basic physical properties such as brightness, contrast, and color, so that any observed attentional effect is not due to exogenous attention capture based on low-level stimulus differences, but can be attributed to the affectivity of the cues. As in the exogenous cueing paradigm, the cue is not predictive of target location; the emotional expression is thus task-irrelevant. Typically, participants show faster responses to targets replacing the emotional rather than the neutral cue, which has been demonstrated both for the visual

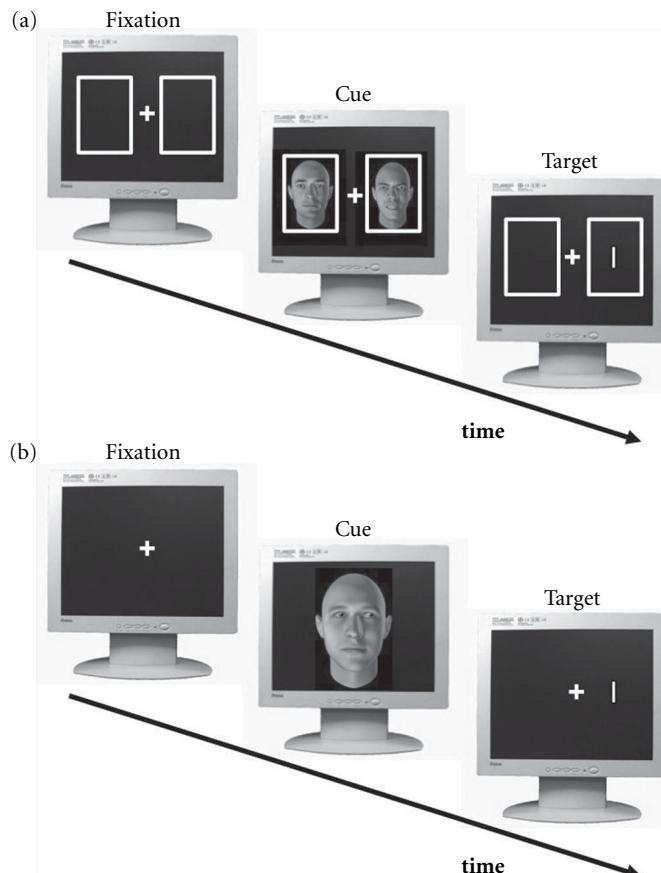


Fig. 6.2 Attentional cueing paradigms from social cognitive research showing (a) attention capture by socio-affective signals, and (b) attention shifts based on other people's eye gaze.

(Brosch, Sander, & Scherer, 2007) and the auditory modality (Bertels, Kolinsky, & Morais, 2010). These effects may even operate across sensory modalities, i.e., for visual targets following auditory cues (Brosch, Grandjean, Sander, & Scherer, 2009), suggesting that the automatic prioritization of important social information is organized supramodally across multiple sensory channels.

Many of the initial studies investigating attention capture by emotional information were conducted in the theoretical framework of the *fear module*, an evolved module subserving attentional prioritization of evolutionarily prepared potentially threatening (“fear-relevant”) stimuli such as angry faces, snakes, or spiders (Öhman & Mineka, 2001). For example, some studies using the dot probe task compared the impact of fear-relevant (angry and fearful) and happy facial expressions on attentional prioritization and subsequent target processing, and reported attention modulation by fear-relevant, but not by happy faces (Mogg & Bradley, 1999; Pourtois, Grandjean, Sander, & Vuilleumier, 2004). These and other results were used to support the theoretical claim that the rapid modulation of attention is restricted to fear-relevant stimuli (Öhman & Mineka, 2001).

We have proposed an alternative mechanism, claiming that the crucial determinant of attentional selection is a rapid appraisal of the emotional-motivational relevance of a stimulus for the needs, goals and values—in short: the well-being of the organism—with threatening stimuli being merely one of many potentially relevant stimulus classes (Brosch, Sander, Pourtois, & Scherer, 2008). The *relevance hypothesis of attention* has several important theoretical implications: (1) instead of a modular specificity to evolutionarily fear-relevant stimuli, it predicts attentional prioritization of a large number of emotional-motivationally relevant stimuli; and (2) instead of a hard-wired system based on a biological preparedness to fear certain kinds of stimuli, it predicts a high flexibility of attentional prioritization, since the needs and goals of a perceiver may change frequently to reflect the changing context and motivations.

In a series of studies we tested and provided empirical evidence for the two major claims of our model (Brosch et al., 2007; Brosch et al., 2008; Brosch & Van Bavel, 2012). We first set out to test whether not only fear-relevant, but also positive social stimuli are prioritized by attention. As mentioned earlier, most previous studies compared threatening and happy facial expressions. However, it may be argued that happy expressions have a lower level of immediate relevance to the observer than threat-related expressions. In real life, if someone stares at you with an angry face, you need to worry about impending aggression. If someone looks at you with a fearful face, you need to determine the cause of the fear in order to evaluate possible consequences for your own well-being. In both cases, you need to rapidly allocate attention to prepare an appropriate response. However, when someone smiles at you, whether from friendliness or personal happiness, no urgent response is required; the smile may be a safety signal, suggesting that you can relax. Thus, the response-demand characteristics of threatening expressions are a priori different from those of expressions of happiness. Proponents of the fear module approach have suggested that threat-related stimuli are prioritized because of their long evolutionary history and significance (Öhman & Mineka, 2001). Thus, they should be compared

with positive social stimuli that have a similar phylogenetic basis. We thus investigated the attentional effect of photos of infant faces. Infants are a prototypical example of a class of social stimuli that are positive and highly biologically relevant. They can be expected to elicit a phylogenetically based readiness for response preparation (as threat does) because appropriate behavior toward newborns, such as providing warmth and nurturance, is relevant for survival of the species. And indeed, congruent with our hypothesis (but incongruent with the theoretical account of the fear module) we observed rapid attention capture both for infant faces and for threatening expressions (Brosch et al., 2007; Brosch et al., 2008) with neuroimaging data indicating identical (or highly similar) underlying selection mechanisms.

In a second series of studies (Brosch & Van Bavel, 2012), we investigated the flexibility of attentional prioritization mechanisms. The relevance hypothesis of attention predicts a high degree of flexibility, since the relevance of a stimulus may change frequently to reflect the changing motivational contingencies of the perceiver. To experimentally manipulate the social relevance of our stimuli, we capitalized on the important role of social categorization in human cognition (e.g., Brewer, 1988). Assigning people to a social group can lead to changes in evaluation and behavior toward in-group and out-group members. In other words, targets are rapidly endowed with affective meaning when they are categorized as social in-group or out-group members. Thus, we randomly assigned photos of individual faces to an in-group (the participants' university) or out-group (another university) by presenting them on different background colors during a learning phase, and then used these faces as cues in a dot probe task (see earlier in this section). All faces showed neutral expressions, so socio-affective relevance was not derived from emotional expressions, but from recent changes in social group membership. Our results revealed rapid attentional capture by images of out-group members, (Brosch & Van Bavel, 2012, experiment 1). Previous research had shown that white participants rapidly orient towards photos of black males, their racial out-group (Trawalter, Todd, Baird, & Richeson, 2008). This effect had been interpreted in terms of the fear module: "the stereotype that young Black men are threatening and dangerous has become so robust and ingrained in the collective American unconscious that Black men now capture attention, much like evolved threats such as spiders and snakes" (Trawalter et al., 2008, p. 1322). However, we showed a conceptually similar pattern of results following a very brief 1-minute group-learning task. Therefore, our findings support the idea that attention mechanisms subserving the selection and prioritization of socio-affectively relevant aspects of the environment are not hard-wired to respond to threatening stimuli, but rapidly adapt to recent changes in the immediate motivational context.

These findings led us to suggest a potential underlying mechanism: attentional prioritization of socio-affective information may be driven by the reactivation of affectively charged memory representations that were encoded as the result of a previous experience, in this case the association of a stimulus with a salient social group. When the stimulus is encountered again, these representations may allow for a fast evaluation of the stimulus ("appraisal shortcuts," see Brosch, Pourtois, & Sander, 2010; Fazio, 1986), and subsequently

influence rapid attentional processes. To evaluate this hypothesis, in a second experiment we manipulated the accessibility of the socio-affective relevance of our stimuli. During the attention task, we presented photos that participants had previously encoded during the learning task (familiar in-group/out-group), but also photos of unfamiliar individuals displayed on the same background colors (unfamiliar in-group/out-group). We hypothesized that rapid attention capture would be observed for familiar, but not for unfamiliar out-group faces, which may require a more time-consuming “on-line” appraisal. Indeed, rapid, reflexive attentional orienting was specific to familiar out-group faces (i.e., faces for whom the out-group membership had been encoded in the learning phase). This finding is consistent with our suggestion that rapid attentional prioritization of socio-affective stimuli may be driven by the reactivation of affectively charged memory traces—appraisal shortcuts (Brosch & Van Bavel, 2012, experiment 2).

Taken together, attentional prioritization has been shown for a large number of socially relevant signals such as emotional expressions, facial configurations, and social group identities. Converging evidence suggests that the underlying mechanisms are based on a rapid automatic appraisal of stimulus relevance, are sensitive to multiple classes of potentially relevant socio-affective stimuli, and are highly flexible to recent changes in motivational contingencies. This very rapid mechanism operates at the individual level, i.e., it serves to reorient the attentional focus of one person towards another person. However, it may be conceptualized as a necessary precursor or even first step of interpersonal communication that may cause collective emotion. It establishes, in an automatic fashion, a rudimentary form of contact between individuals, which is required for the interpersonal sharing of information, both about the internal state of the individuals (e.g., via emotional contagion or empathy mechanisms, see Hess, Houde, & Fischer, Chapter 7, this volume; Lamm & Silani, Chapter 5, this volume; Hatfield, Carpenter, & Rapson, Chapter 8, this volume) and about relevant events in the environment (e.g., via joint attention mechanisms, see “Joint attention: mechanisms of eye gaze cueing” section).

Consistent with the behavioral findings reviewed up to now, brain imaging studies have consistently revealed increased neural responses to many different socio-affective stimuli compared to neutral stimuli, both in early sensory areas like primary visual cortex, and in higher-level regions associated with object and face recognition. Enhanced responses have been observed for emotional faces in the fusiform face area, emotional voices in the temporal voice area, and emotional body movements in the fusiform body area, suggesting a selective modulation of brain regions involved in the processing of specific stimulus categories (Vuilleumier & Brosch, 2009). Research using electroencephalography has yielded similar results, revealing modulatory effects of emotional expressions at several stages of cortical processing, including both early, sensory-related processes (as soon as 100 ms after stimulus onset) and later processes related to more elaborate evaluations of these stimuli, subsequent autonomic arousal, and/or memory formation (see Olofsson, Nordin, Sequeira, & Polich, 2008, for review). Thus, brain imaging and electrophysiological data converge to show that socio-affectively relevant stimuli are represented by more

robust neural signatures than neutral ones, and can consequently profit from preferential access to further cognitive processing, behavior control and awareness.

It has been suggested that the prioritization of emotional information is driven by dedicated neural circuits (Brosch et al., 2011; Vuilleumier, 2005; Vuilleumier & Brosch, 2009), separate from the fronto-parietal networks that are involved in endogenous and exogenous attention. In this model, the amygdala, a limbic region critically involved in the monitoring of the environment for emotionally relevant information (Cunningham & Brosch, 2012; Sander, Grafman, & Zalla, 2003) is thought to play a critical role by modulating the processing of incoming sensory stimuli through direct feedback projections to visual cortex (Amaral, Behniea, & Kelly, 2003) and biasing signals to fronto-parietal attention regions (Pourtois, Thut, Grave de Peralta, Michel, & Vuilleumier, 2005). Consistent with this suggestion, several neuroimaging studies have reported that cortical increases were significantly correlated with amygdala responses; i.e., the more the amygdala was sensitive to a stimulus, the more modulation was observed in sensory areas. The boosting by the amygdala may not only directly impact on sensory cortices, but it can also bias the fronto-parietal endogenous attention network toward the location of the stimulus, so that subsequent information arising at the same location as emotional cues will benefit from enhanced processing resources. Functional magnetic resonance imaging recordings during the emotional dot probe revealed greater activation in the IPS when targets were preceded by a fearful face than a neutral face, consistent with enhanced attentional orienting (Pourtois, Schwartz, Seghier, Lazeyras, & Vuilleumier, 2006). Taken together, neuroimaging work has demonstrated how socio-affective stimuli can induce a distinctive cascade of neural events which does not only boost the processing of the stimulus itself, but also influences mechanisms responsible for orienting and shifting attention in space, such that subsequent information arising at the same location as a socio-affective cue will also benefit from enhanced processing resources (see also Pourtois, Schettino, & Vuilleumier, 2013; Vuilleumier & Brosch, 2009).

Joint attention: mechanisms of eye gaze cueing

As reviewed earlier, the face provides social information about many different features such as identity, social group, age, and emotional state, which can be used to direct attention toward especially relevant social interaction partners. In addition, information present in the eye gaze can be used to infer the attentional focus of others. Very often, information that is attended (and thus considered relevant) by others will also be relevant for us, thus it is adaptive to shift our attention toward the same target. Furthermore, we can use information that others may have about the relevance of the attended object (for example, evaluative information indicated by a facial expression of liking or disgust), and use this information to guide our own evaluation and learn more about the attended object.

Humans seem to be equipped to easily transmit information via eye gaze. The structure of the human eye, consisting of a dark pupil on a white sclera, provides high contrast and makes it easy to rapidly decode information about the direction of gaze (other

primates do not have white sclerae but darker ones, which is much less conducive to a rapid read-out of gaze direction, see Kobayashi & Kohshima, 1997). And indeed, humans are especially accurate at discriminating different directions of eye gaze, using both contrast information and geometrical information for the computation of gaze direction (for review, see Frischen, Bayliss, & Tipper, 2007). From a very early age, humans are able to detect eyes and use the provided information to direct their attention, learn the names of objects, and gain an insight into the mind of their caregivers. For example, during their first year, infants start following their caregivers' head turns (Scaife & Bruner, 1975) and turn their gaze into the direction of a pair of eyes presented on a computer screen (Hood, Willen, & Driver, 1998). These very early cases of gaze cueing seem, however, to be based on reactions toward the perception of movement in the eyes, not on a real understanding of the communicative intent of others, whereas "real" joint attention develops between 12 and 18 months (Brooks & Meltzoff, 2005). The acquisition of this skill may form the basis for a rapid subsequent development of other socio-cognitive functions. For example, by the age of three, children use gaze information to ascribe internal states such as desires to others (Baron-Cohen, Campbell, Karmiloff-Smith, Grant, & Walker, 1995).

Most empirical investigations of the effects of gaze on attention have been conducted using the gaze cueing task (see Fig. 6.2b). In this task, a centrally presented person looks either to the left or to the right, and then a target is presented to the left or to the right of the person. The participant has to detect the target. Participants' responses are faster in trials where the target appears at the location indicated by the gaze compared with targets appearing at the opposite location. This effect is observed even when the gaze is not predictive, i.e., the eye gaze indicates the correct side in only 50% of the trials (Friesen & Kingstone, 1998), consistent with an automatic cueing of attention by gaze. Recordings of eye movements have shown that the observation of an averted gaze may trigger eye movements towards the cued location, even before the target appears (Mansfield, Farroni, & Johnson, 2003), which indicates that an observed eye gaze may activate similar motor programs in the observer. Interindividual differences have been observed in the strength of the attentional shift. For example, participants who report low levels of self-esteem show a larger gaze cueing effect than people with high self-esteem, indicating that low self-esteem is related to a higher tendency to use another individual's gaze as a reference for how their attention should be allocated (Wilkowski, Robinson, & Friesen, 2009). Social interaction partners may not only use their eye gaze to indicate a common point of interest, but also to mislead the observer by guiding his attention away from a potentially interesting location. In a variant of the gaze cueing paradigm, different identities showing different behaviors were used for the centrally presented face: "trustworthy" faces that always looked toward the location where the target would appear, "untrustworthy" faces that never looked to the target location, and "neutral" faces that looked to the correct location in 50% of the trials (Bayliss & Tipper, 2006). Participants followed the gaze of all faces, no matter how predictive they were for the task, consistent with a strong automaticity of gaze cueing. However, after the experiment, participants rated the faces that always

looked in the right direction as more likeable and trustworthy than faces that looked in the wrong direction.

Thus, observing someone's gaze reliably and automatically triggers shifts of attention in the corresponding direction. In addition, eye gaze may interact with emotional expressions, which may reflect additional information about the relevance of the attended object and may thus be used to inform the evaluations and behavior of the observer. For example, a fearful face looking at a particular location may indicate the presence of a threat at this location. This threat may also be dangerous for the observer, thus attentional shifts towards the cued location should have higher priority compared with locations cued by neutral face (see also Bruder, Fischer, & Manstead, Chapter 10, this volume). Even though this interaction effect has not been observed in all the studies that set out to find it (see Graham & Labar, 2012, for a review), studies using dynamic stimuli have shown that a fearful face can lead to increased gaze cueing compared with a neutral face (Tipples, 2006; see also Putman, Hermans, & Van Honk, 2006). Information transmitted by facial expressions may also inform the explicit evaluations of the observer. When participants observed a person with a happy expression looking at an object, they gave higher liking ratings to the objects compared to objects looked at with an expression of disgust (Bayliss, Frischen, Fenske, & Tipper, 2007). Similar effects have been observed in social evaluations: male faces that were looked at by females with smiling faces were rated as more attractive by female participants than males looked at with neutral expressions. Revealing an interesting gender difference, in the same experiment male participants preferred the male faces that were being looked at by female faces with neutral expressions (Jones, DeBruine, Little, Burriss, & Feinberg, 2007).

Taken together, these findings demonstrate that other people's eyes provide important cues for the attention system. Humans use information from the eye gaze of others to infer the attentional focus of their interaction partners and automatically shift their own attentional focus to the same location. Furthermore, additional information about the relevance of the attended object, as reflected in emotional expressions of the interaction partner, may be integrated to inform the observer's appraisal of the environment.

Compared to the attentional prioritization mechanisms outlined in the first part of this chapter, the joint attention mechanism has a much stronger interactive component. Using this mechanism, an individual can guide (or misguide) another's attention and thus another's perception of the environment, and can furthermore inform and modify the other's affective evaluation of objects or persons that are jointly attended to. Joint attention thus serves as an automatic sharing mechanism for relevant information. Emotions are defined as reactions to events that are appraised as relevant to the goals, needs and values of an individual (see, e.g., Brosch et al., 2010). Collective emotions, in turn, can be considered as "responses to events that are appraised as relevant to the goals, needs and values of several individuals simultaneously." Thus, joint attention may constitute a key mechanism underlying the synchronization of the appraisals of several individuals that is necessary for the elicitation of collective emotions.

The large number of brain areas dedicated to the processing of the human face reflects the importance of this information for humans. Face perception is mediated by a large distributed system including visual, limbic, and prefrontal regions (Ishai, 2008). Specialized core brain regions of face processing are located in inferior occipital gyrus and fusiform gyrus. In these regions, incoming visual information is encoded structurally and transformed into a perspective-independent model of the face (Rotshtein, Henson, Treves, Driver, & Dolan, 2005). The superior temporal sulcus (STS) is involved in the processing of different types of biological motion, and thus plays an important role in the decoding of eye gaze direction (Calder et al., 2007). Studies in humans and monkeys provide converging evidence that the STS contains neurons sensitive to different gaze directions, as well as certain static combinations of face positions and gaze (e.g., frontal view of the face with averted eye gaze, see Nummenmaa & Calder, 2009, for a review). This enables the observer to infer the direction of someone's attention under a variety of visual conditions. STS furthermore has many direct connections to other brain regions implicated in affective and attentional processes, such as the amygdala and the dorsal fronto-parietal attention system. The amygdala is involved in the detection of emotionally and motivationally relevant information, which includes eyes and eye gaze. Patients with amygdala damage have problems in discriminating gaze directions (Young et al., 1995). Furthermore, they show deficits in recognizing others' emotions, largely because they fail to orient their attention towards the eyes (Adolphs et al., 2005). STS furthermore has connections with the IPS, a region in the dorsal fronto-parietal attention network (Corbetta & Shulman, 2002), and may input information about gaze direction via these connections into the attention system to bias attention accordingly. Recordings of event-related potentials during the gaze cueing task have revealed the speed of this modulation, showing rapid attentional shifts of eye gaze cues as soon as 300 ms after gaze onset (Holmes, Mogg, Garcia, & Bradley, 2010; Schuller & Rossion, 2001). Recent neuroimaging studies furthermore show an involvement of medial prefrontal regions in the processing of gaze cues (Nummenmaa & Calder, 2009). These regions have been implicated in the attribution of mental states to others across a number of different tasks (Van Overwalle, 2009). It has also been suggested that the mirror system plays a role in eye gaze cueing, in that the observation of another's eye movement may immediately trigger motor responses in FEF that match the observed movement—however, empirical findings are contradictory, and the role of mirror neurons in joint attention is still debated in the literature (see Frischen et al., 2007, for a discussion). Altogether, neuroimaging findings suggest that joint attention is implemented by a distributed network centered on the STS, including regions involved in affective processing, attentional selection, and higher social cognition. During initial face processing, interactions of STS and amygdala may underlie the rapid detection of other people's eyes and the analysis of their eye movements and gaze direction. Connections between STS and fronto-parietal regions such as the IPS may then be used to input information about the direction of the eye gaze into the attention system to initiate an orienting into the corresponding direction. Finally, activation in mentalizing regions such as medial prefrontal cortex may reflect

the involvement of higher-order social inferences, e.g., about the goals, intentions, and preferences of the observed person.

Conclusion

Signals that indicate the affective state, interests, and intentions of others are enormously relevant for the “social animal.” It is thus highly adaptive to prioritize socially relevant information out of the incoming information stream. I have reviewed behavioral and neuroimaging research demonstrating rapid attentional prioritization of a large number of socially relevant signals, including emotional expressions, facial configurations, and social group identities, which results in more robust neural representation of the prioritized stimuli as well as perceptual enhancements such as faster stimulus detection or increased contrast sensitivity. Converging evidence suggests that the underlying mechanisms are based on a rapid automatic appraisal of stimulus relevance, are sensitive to multiple classes of potentially relevant socio-affective stimuli, and are highly flexible to recent changes in motivational contingencies. This rapid attentional prioritization of socially relevant information establishes sensory contact between individuals, which is necessary for the interpersonal sharing of internal (e.g., via emotional contagion or empathy) and external (via joint attention) information, and thus constitutes an important precursor to collective emotion.

In the second part of the chapter, I have focused on the mechanisms of joint attention, which enable individuals to use information from the eye gaze of others to infer their attentional focus and shift their own attention to the same location. Via this mechanism, individuals can guide another’s perception of the environment and can modify their affective evaluation of objects or persons. As joint attention allows the sharing of information about the relevance of an external event, it may constitute a key mechanism for the synchronization of the appraisals of several individuals that may underlie the elicitation of collective emotions.

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Chapter 7

Do we mimic what we see or what we know?

Ursula Hess,^a Stephanie Houde,^b
and Agneta Fischer^c

^aHumboldt University of Berlin, ^bUniversity of Quebec at Montreal, and

^cUniversity of Amsterdam

Collective emotions are often identified by shared emotional expressions, such as angry faces, panic gestures, but also laughter. The expression of similar emotions can be seen as a characteristic of collective emotions. Yet, the question remains how people come to express the same emotions at the same time. Crowds react in similar emotional ways, because they respond in the same way to a shared emotional event, such as, for example, their unfair treatment or the threat of a tornado. Yet, at the same time such a shared reaction is also likely due to the contagious nature of emotions (LeBon, 1896/1995). However, despite the scholarly interest in the processes that lead individuals to show similar emotions, there is still much confusion about the characteristics of this process and the distinction between the related concepts of mimicry, emotional contagion, perspective taking, and empathy. In the present chapter we first describe the characteristics of mimicry, and distinguish it from the related processes that are often associated with mimicry. We will then describe the functions of mimicry, which will show how it is implemented in the occurrence of collective emotions.

The defining characteristics of emotional mimicry

Mimicry is usually defined as the tendency to imitate facial, vocal, or postural expressions of individuals with whom we are interacting (Hess, Philippot, & Blairy, 1999). We mimic not only individuals we interact with (e.g., Hess & Bourgeois, 2010), but also persons we see in photos (e.g., Dimberg, 1982, 1990) or films (e.g., Hess & Blairy, 2001; van der Schalk et al., 2011). Mimicry is not restricted to a mature age, and can be observed in newborns as young as several hours after birth, who tend to imitate aspects of facial expressions such as the sticking out of the tongue (Meltzoff & Moore, 1977).

There is evidence that individuals mimic a variety of behaviors such as foot tapping and face touching (Chartrand & Bargh, 1999), and bodily postures in general (Bavelas, Black, Lemery, & Mullett, 1986; Bernieri & Rosenthal, 1991). Importantly, we also mimic emotional displays (Dimberg, 1982; Hess et al., 1999).

When considering mimicry as one possible factor facilitating collective emotions, it is useful to distinguish between *emotional mimicry*, the imitation of the emotional expressions of others and *behavioral mimicry*, the imitation of non-emotional behaviors, such as face touching or foot tapping. The distinction is useful because emotional behaviors generally are intrinsically meaningful. Emotions are based on an appraisal of the emotion-eliciting event (Scherer, 1987), which are based on the emoters' preferences, values, and motivations. Thus, information about the person's interpretation of the event and his or her behavioral intentions is implied when emotions are observed. Emotion displays may also provide information about a person's dispositions such as dominance and affiliation (Hess, Blairy, & Kleck, 2000; Knutson, 1996). By contrast, behaviors such as foot tapping or face touching generally do not carry such information about the expresser's appraisals, intentions or dispositions.

The first defining characteristic of *emotional mimicry* is that two people show the same non-verbal expression of emotion, shortly after each other, such that one facial display is a reaction to the other facial display. Yet, there are occasions when two people show the same emotion expressions but where this is not the result of mimicry. First, individuals may show the same expression because the same emotion was elicited in both of them at the same time. For example, two people may both witness an unfair event and both react with righteous anger. In this form of *parallel* emotion elicitation, the individuals would share a perspective—they both appraise the event in the same way, yet, their emotional reactions are not linked, and they need not even be aware of each other.

Second, similar emotion expressions may also be due to *social referencing*. In this case, the observed emotions of others are used as a cue to the appropriate responding in an ambiguous situation (see e.g., Klinnert, Campos, Sorice, Emde, & Svejda, 1983; see also Bruder, Fischer, & Manstead, Chapter 10, this volume). As a consequence, the person who searches for information will then show the same emotion as the "model," but the resulting affect can be best described as primarily event-based, and thus as parallel emotion elicitation. In short, emotional mimicry is different from parallel emotion elicitation and social referencing, because these processes are a more direct result of shared exposure to an emotional event, rather than a reaction to the facial display of the other person.

Finally, a facial expression can also be an emotional reaction to the expression of the other—for example, being confronted with a person who looks angry may elicit irritation and anger, because of the implied insult, but also fear if the angry other is in a position to cause harm. Such reactions could be referred to as a *reactive* emotion to the anger (see also Hess & Fischer, 2013). In these cases, the facial reaction can be either congruent (in the case of anger) or incongruent (in the case of fear). This observation has also implications for our understanding of mimicry per se as it implies that the simple congruency between facial reactions is not a sufficient indicator for mimicry.

Hess and Fischer (2013) argue that most research on emotional mimicry has been acontextual and does not allow disentangling a reactive facial response from a mimicry response. This is partly the case because a majority of studies has focused on expressions of anger versus happiness, and both emotional displays can elicit congruent frowns and

smiles, which may either be reactive emotions or mimicry reactions. On the basis of studies in which only faces are presented, without any information, it is impossible to conclude whether the frowning in response to an angry face is mimicry or merely a negative reaction evoked by an unpleasant stimulus, or whether the smile in response to a smile is mimicry or merely a positive reaction to a pleasant stimulus. A last important characteristic of mimicry is that it only occurs spontaneously when there is a minimal form of similarity or affiliation between observer and target (Bourgeois & Hess, 2008; Likowski, Mühlberger, Seibt, Pauli, & Weyers, 2008).

In fact, in social relations that are perceived by the interaction partners as negative in any form, mimicry would be dysfunctional. We do not mimic the pride of our competitor who won the contest, nor do we mimic the fear of spiders of our enemy. This means that in order for spontaneous mimicry to occur in social interactions, the affiliative goals or inferred intentions of the interaction partners should be minimally neutral, and preferably positive. Thus, mimicry is not a “blind” imitation of any given emotional display, but rather a social process that depends on the interactional context (see Hess & Fischer, 2013).

Emotional mimicry, emotional contagion, and empathy

Emotional contagion is the term that is most often equated with mimicry. Some authors even refer to mimicry as “motor contagion” (e.g., de Gelder, 2009; Spengler, Brass, Kühn, & Schütz-Bosbach, 2010). Hatfield and colleagues broadly defined emotional contagion as: “The tendency to automatically mimic and synchronize expressions, vocalizations, postures, and movements with those of another person and, consequently, to converge emotionally” (Hatfield, Cacioppo, & Rapson, 1992, p. 153). They also refer to this process as the tendency to “*catch*” another person’s emotions. Thus, Hatfield and colleagues include mimicry in their definition and also refer to mimicry as “primitive emotional contagion” and one of the routes via which we “*catch*” others’ emotions. However, we propose to demarcate contagion from mimicry.

One way to differentiate between mimicry and contagion is that emotional contagion only refers to the matching subjective emotional experience, whereas mimicry refers to the matching non-verbal display. Even though many studies on emotional mimicry also find evidence for a matching subjective experience in the same experiment (e.g., Hess & Blairy, 2001; Lundqvist, 1995), these two do not necessarily co-occur. We use the term emotional contagion to refer to the *outcome* of any interactional process in which individuals come to catch another’s emotion (which may not necessarily involve expressive behavior), whereas emotional mimicry refers to the imitation of expressive behavior, which may be one of the processes leading to emotional contagion.

Another view of the relation between mimicry and contagion considers both not as part of the same process but as causally related, such that mimicry is said to elicit contagion. Lipps (1907) was the first to suggest that mimicry facilitates the understanding of others’ emotions through emotional contagion. He assumed that the observer will automatically mimic a perceived behavior and this mimicry will then—through feedback

processes—produce the corresponding state. This internal state will then be one source of information about the state of the other. This view therefore associates mimicry with both empathic accuracy and emotional contagion and presages the current simulationist accounts of face based emotion recognition (e.g., Gallese & Goldman, 1998; Goldman & Sripada, 2005).

Both emotional contagion and mimicry have been considered to be forms of empathy (Hoffman, 1984). Empathy has been defined as the ability to understand and respond to the emotional messages of others (Decety & Jackson, 2004). Generally, two forms of empathy have been distinguished: cognitive empathy (Ickes, 1997) and affective empathy (Decety & Jackson, 2004). Cognitive empathy emphasizes the ability to accurately infer another person's feelings.

The second form of empathy, affective empathy, more often leads to confusions with mimicry and contagion. Affective empathy is defined as a process during which the perception of another's emotional state generates a matching state in the perceiver (see e.g., de Waal, 2008). This matching state may also generate matching expressions. More recent research on affective empathy, which draws on research on mirror neurons, also emphasizes mimicry as part of the empathic process (Decety & Jackson, 2004; Goldman & Sripada, 2005). Indeed, in an extensive review on empathy, Preston and de Waal (2003) consider emotional contagion as just one of the phenomena that are included in the broad category of empathy.

Most research on empathy has focused on empathic distress and its implications for prosocial behavior, and thus empathy is generally *operationalized* as personal distress (see also Preston and de Waal, 2003, who consider personal distress to be synonymous with emotional contagion). It should be clear from this account, that even though mimicry may be implicated in the empathic process, it is not by itself a form of empathy and does not require congruent emotions. For example, a person may cry out of helpless frustration, whereas the empathic observer shows pity with this person.

In sum, both affective empathy and emotional mimicry refer to processes that may lead to catching others' emotions (emotional contagion). In both cases one has a connection with the other person, and one shares the emotional appraisal of the event, for example, the unfairness or threat of a situation. In addition, more intimate emotional bonds lead to more affective empathy and mimicry. Both processes are thus highly similar, and the distinction is mainly that affective empathy often focuses on persons in distress, and not necessarily involves matching emotional displays (see also Table 7.1 for a summary). Another useful differentiation is that whereas mimicry (Dimberg, Thunberg, & Grunedal, 2002) and emotional contagion (Hatfield, Cacioppo, & Rapson, 1992) are typically automatic and unconscious such that individuals are not aware of their reaction, empathic individuals are typically aware of the other as source of the emotion they experience (Coplan, 2004).

In conclusion, we define emotional mimicry as the conscious or automatic imitation of a non-verbal emotional display of another person, with whom one has an affiliative link. This imitation does not necessarily lead to an accompanying subjective state. We

Table 7.1 Similarities and differences between related phenomena

	Similar emotional display	Affiliative link	Shared event appraisal	Similar subjective experience
Mimicry	Yes	Yes	Yes	No
Contagion	Yes	Yes	Yes	Yes
Affective empathy	No	Yes	Yes	Yes
Social referencing	Yes/No ^a	No	Yes	Yes
Reactive emotion	Yes	Yes	No	Yes
Parallel emotion	Yes	No	Yes	Yes

^aNot as an initial reaction

define emotional contagion as a matching emotional reaction between two or more individuals.

The functions of mimicry

Affiliation

Lakin, Jefferis, Cheng, and Chartrand (2003) posit that the function of behavioral mimicry has evolved as a mechanism enhancing social coordination through affiliation between interaction partners. This notion that mimicry improves the quality of interactions is well established (Chartrand & Bargh, 1999; Hess et al., 1999). However, not all interactions allow for mimicry, because the occurrence of mimicry crucially depends on whether the situation affords affiliative intent. This may at first seem in contrast with the idea that mimicry is a strictly automatic and unconscious motor response (Chartrand & Bargh, 1999; Lakin et al., 2003). There is evidence, however, that although emotional mimicry may be automatic, it still varies with how the emotional signal is interpreted in a specific social context (Bourgeois & Hess, 2008; Hess & Bourgeois, 2010). In this sense mimicry is not different from many social cues that lead to automatic behavior in function of the social context. Specifically, different emotional and social cues relating to the interpretation of affiliative goals affect whether mimicry will be shown in a specific context.

One relevant cue is the type of emotion that is displayed, because, as mentioned earlier, different facial emotion expressions signal different degrees of affiliation. Thus, happiness is mimicked more readily, because smiling persons are seen as more affiliative than, for example, individuals who show anger or disgust (Hess, Blairy, & Kleck, 2000; Knutson, 1996). The expression of happiness therefore signals affiliative intent. A facial display that signals anger, such as a frown, on the other hand, is likely understood as a signal that one is the target of the other's anger, and this would not fulfill the affiliation goal that is normally served by emotional mimicry. This is nicely illustrated in a study by Hinsz and Tomhave (1991) who observed people in shopping centers, stores, or the library and found that 53% of smiles, but only 7% of frowns were responded to with a matching expression.

More explicit social cues that may influence mimicry are contextual goals, for example, whether the relationship with the other is cooperative or competitive (Lanzetta & Englis, 1989; Weyers, Mühlberger, Kund, Hess, & Pauli, 2009), or whether one identifies with the expresser as a member of a specific group (Bourgeois & Hess, 2008). For example, when we are watching a funny movie with friends, we laugh more than if we see the same movie alone (Hess, Kappas, & Banse, 1995). Yet, when anger is perceived as directed at a common foe mimicry may again signal common understanding and affiliation (Bourgeois & Hess, 2008, study 1). By contrast, in a competitive or hostile interaction, facial reactions are likely to be a reaction *to* rather than *with* the emotion displayed by the other person. These relationships cause a decrease or absence of mimicry (Lanzetta & Englis, 1989; Weyers et al., 2009) or may even elicit facial displays that are incongruent with the observed expression, such as smiling when seeing the pain or fear display of a competitor or a disliked out-group member (Lanzetta & Englis, 1989).

More generally, a negative attitude towards the target may inhibit emotional mimicry and increase the interpretation of the emotional signal as hostile (e.g., Hutchings & Haddock, 2008). Interestingly, Likowski, Mühlberger, Seibt, Pauli, and Weyers (2008) demonstrated that this is the case even when attitudes are newly formed by narratives about a specific character. In line with similarity at the individual level, similarity at the group level may also foster mimicry. Thus, we expect that individuals are more likely to mimic the emotional reactions of in-group members than those of out-group members (Bourgeois & Hess, 2008; van der Schalk et al., 2011). The idea that mimicry is meaningful and only occurs when it increases affiliation, is also supported by the fact that van der Schalk and colleagues (2011) found divergent facial reactions as well, especially contempt in reaction to outgroup fear.

In conclusion, there is ample evidence that mimicry is sensitive to the emotional and social context and depends on various contextual cues, such as type of the emotional signal, the identity of the target, the emotional state or disposition of the observer, and the relationship between observer and target. The results of these studies show that emotional mimicry generally occurs when it reinforces social bonds or rapport, and not or only in a limited way if the relationship is negative or when one appraises the emotional signal as having a negative consequence for oneself. In turn, mimicry increases perceived similarity, liking, smoothness of the interaction, and prosocial behavior (cf. Hess et al., 1999; Lakin & Chartrand, 2003). This seems to be especially the case if the relationship is already positive, or at least neutral (see also Stel et al., 2010). Thus, these findings support the presumed function of emotional mimicry to reinforce social bonds, which makes emotional mimicry a likely mechanism in the elicitation of collective emotions.

Emotional understanding

The second purported function of emotional mimicry (either mediated through contagion or by its own) is emotional understanding, or more basically, the accurate recognition of others' emotions. This idea has been forwarded by different theorists (e.g., Goldman & Sripada, 2005; Lipps, 1907) and implies that when we see an emotional display shown

by another person, this more or less automatically evokes mimicry, which subsequently helps us to recognize the original display as an emotion through a bodily feedback system.

Thus, participants who are prevented from mimicking are slower in recognizing briefly presented emotion expressions or changes in emotion expressions (Niedenthal, Brauer, Halberstadt, & Innes-Ker, 2001; Stel & van Knippenberg, 2008). Also, respondents who were free to mimic an avatar's smile were better in differentiating true smiles from fake smiles than respondents in whom mimicry was blocked (Maringer, Krumhuber, Fischer, & Niedenthal, 2011). Conversely, contextual cues (is the smile appropriate in this context) were more important for judging whether the smile was fake or not, when mimicry was blocked than when respondents were free to mimic.

Yet, mimicry does not seem to be necessary for emotion recognition. In their studies of facial reactions to emotional faces, Blairy and colleagues (Blairy, Herrera, & Hess, 1999; Hess & Blairy, 2001) found no evidence of a relationship between emotional mimicry and decoding accuracy. Further, a study by Bogart and Matsumoto (2010) on individuals with Moebius syndrome, a condition characterized by congenital bilateral facial paralysis, also showed that the adults with Moebius syndrome did not differ from the matched control group on a facial expression recognition task.

These studies indicate that mimicry is not a necessary condition to recognize an emotional expression. Moreover, the fact that mimicry also varies with social context, suggests that we do not mimic the emotions of our enemy—but any system that would prevent us from recognizing the antagonistic emotions of others would be counter-productive in the long run. Still, these restrictions in the role of mimicry do not exclude the possibility that mimicry facilitates the recognition process and may therefore be particularly useful in fast recognition processes (see also Stel & van Knippenberg, 2008) or in recognizing ambiguous emotional signals. In addition, in studies comparing different types of judgments of faces, mimicry spontaneously occurs when participants are specifically asked to make emotional rather than, for example, color judgments of emotional faces (Cannon, Hayes, & Tipper, 2009). Overall, we may conclude that individuals mimic in contexts where they attempt to understand the emotional state of another individual. However, we are still able to recognize emotions even when mimicry is impaired or experimentally impeded (for a related idea see Niedenthal, Mermilliod, Maringer, & Hess, 2010).

Mimicry and contagion as different forms of simulation

The idea that both mimicry and contagion tend to occur in contexts in which individuals are motivated to understand others, is in line with some simulationist accounts (Niedenthal, 2007) suggesting that we seek emotional meaning and understanding through emotional simulation. The research reviewed earlier in this chapter shows that mimicry is not necessary for emotion recognition, yet it sometimes facilitates recognition. According to the cited research it seems possible that it is not mimicry per se, but rather emotional contagion (which often accompanies mimicry, see Hess & Blairy, 2001; Lundqvist, 1995) that has a facilitative effect on emotion recognition. Thus, when trying to understand what another person feels, we may (implicitly) re-enact or simulate the

emotional experience. One line of research supporting this assumption shows that emotion or mood congruence facilitates emotion recognition (see, e.g., Terwot, Kremer, & Stegge, 1991).

The idea that both mimicry and contagion may operate independently when we recognize and understand an emotional experience is in line with those simulationist accounts that dispense with the need for overt motor action (see Goldman & Sripada, 2005). Instead, these accounts argue that the role of mirror neurons is to enable the observer to match the observed movements onto their own motor repertoire in something like an “as if” loop, which does not lead to overt motor action, but only involves the sending of efferent copies from the involved motor neurons.

It is also possible that when an emotional display cannot be clearly observed but the observer knows what the other person experiences (e.g., via a verbal account), he or she tries to imagine what this person is feeling and thus simulates the other’s emotional state. Alternatively, contextual knowledge about the situation or the person can be used to take the perspective of the other and to simulate the emotion (Kirouac & Hess, 1999).

Finally, it is possible that the emotional display spontaneously leads to perspective taking. This route has been nicely illustrated in a recent study by Hawk, Fischer, and van Kleef (2011) which showed that watching an embarrassed person may elicit perspective taking in the observer. At the same time, however, such an embarrassment expression may also evoke mimicry. In this line of reasoning, emotional mimicry, emotional contagion, and perspective taking may all be forms of simulation, of re-enacting the emotional state of the other person. Such re-enactment may then be helpful in understanding the other’s emotional state.

Mimicry as a communicative act

In sum, two different functions of mimicry have been proposed: reinforcing social bonds and improving emotion understanding. There is excellent evidence for the first function showing that emotion mimicry can indeed lead to enhanced liking of another person. There is also qualified support for the second function, although we have shown that emotion mimicry is not a necessary requirement for emotion recognition. Nonetheless mimicry, as well as emotional contagion and perspective taking, may be one of the processes that allow us to simulate another emotional state and hence allow us to better understand the other.

Hess and Fischer (2012) have recently proposed that mimicry functions to regulate our relations with others. Mimicking less is then a means to take distance. This may sometimes be a conscious decision, for example, in some professional settings, but it is more likely to be part of an automatic response. Emotion mimicry thus functions as social regulator: emotionally mimicking others can create social warmth, but also social cold when we do not mimic. Emotion mimicry is thus a function of interaction goals and the social affordances of the situation.

However, this still raises the question as to why we imitate others to achieve these goals. We propose that mimicry is actually less about imitation and more about simulating what

we know about the others' feelings. That is, mimicry is a communicative signal that tells others that we know how they feel. This notion was first proposed by Bavelas et al. (1986) in an article appropriately titled "I show you how you feel: Mimicry as a communicative act." However, this idea has had little echo in mimicry research.

If indeed emotional mimicry serves primarily as a communication signal, then facial reactions should not be restricted to situations where a facial expression is actually observed. All that would be required would be the knowledge that a person feels a given emotion. Evidence that there is no requirement to actually visually perceive an emotion expression to show facial mimicry comes from cross-modal mimicry, where facial expressions are shown in response to vocal stimuli (Hawk, Fischer, & Van Kleef, 2012; Verona, Patrick, Curtin, Bradley, & Lang, 2004). However, emotional sounds and emotion words (Velten, 1968) can both elicit emotional states as well. Thus, congruent facial expressions may also be elicited by emotion induction. We therefore conducted a study to assess whether facial mimicry can be elicited by emotion knowledge, that is, the verbal information that a person experiences an emotional state and that this mimicry occurs without an emotion being elicited.

Do we mimic what we know about other's emotions?

Sixty women saw neutral facial expressions of men and women and were told for each person which emotion (anger, sadness, or happiness) this target person experienced. The participants' task was simply to indicate the intensity with which this emotion was shown. To assess the participants' emotional state they were asked once for each type of expression to report their current state using a "well-being" questionnaire. The majority of the scales related to physical symptoms likely to occur in an experimental context (i.e., tense muscles, dry eyes). Four items designed to unobtrusively measure emotional state were included: feeling good, feeling irritated, feeling aggressive, and feeling melancholic. The labels corresponded to the emotional content of the labels used to describe the stimulus person's emotion without using the same terms as those employed there. Participants typically report that the scale serves to assess stress and are not aware that emotional state is assessed as well. For the analyses difference scores from baseline were calculated.

Participants only reported a slight overall reduction in feeling good from baseline to trial; no significant difference emerged for any emotion as a function of the emotion label. That is, being told that the person they saw was happy, angry, or sad did not elicit a corresponding emotion in the participants. Yet, did they show mimicry?

Facial mimicry was measured using facial electromyography (EMG) at the Corrugator Supercilii, Orbicularis Oculi, and Zygomaticus Major sites. Electrode placements were chosen according to Fridlund and Cacioppo (1986). Corrugator Supercilii is the muscle that pulls the eye-brows together in a frown, Orbicularis Oculi produces the crow-feet wrinkles around the eyes, and Zygomaticus Major pulls the lips up in a smile. Facial expressions of anger and sadness are characterized by increased activity of the Corrugator Supercilii muscle and relaxation of the Orbicularis Oculi and Zygomaticus Major, whereas happy expressions are characterized by the reverse pattern. Hence to assess whether a

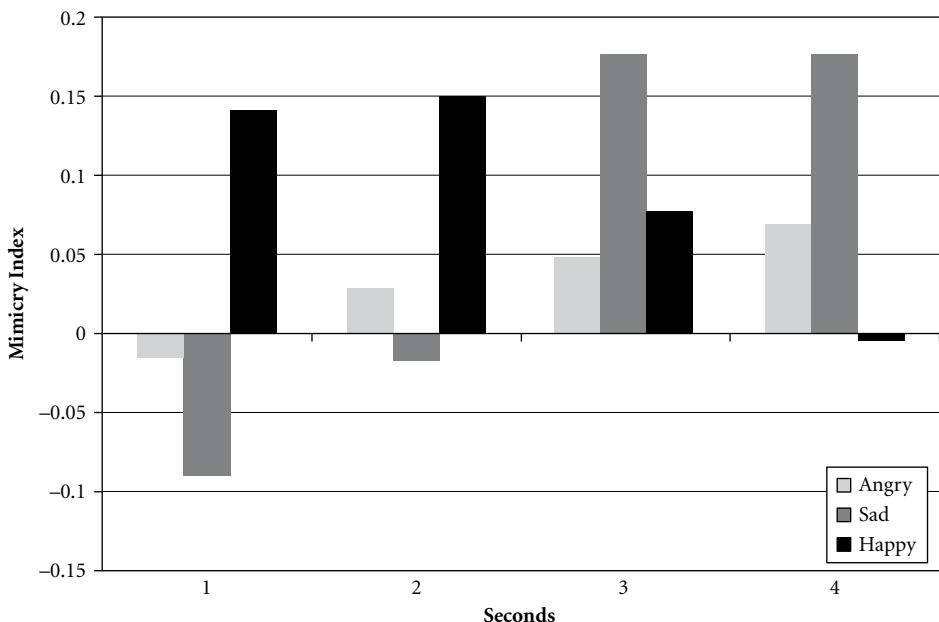


Fig. 7.1 Mean mimicry indices as a function of emotion label and time.

participant shows a muscle activation pattern that corresponds to an expression of anger, sadness or happiness contrasts comparing activation of Corrugator Supercilii on one hand with activation of the Orbicularis Oculi and Zygomaticus Major on the other hand were conducted. For the analysis differences from a baseline period directly preceding the stimulus presentation where within-subject z-transformed as EMG measures are not normally distributed and a mimicry index based on the contrast described earlier was calculated separately for each of the 4 seconds that the stimulus was shown (see Fig. 7.1).

No significant mimicry pattern emerged for anger. This finding is congruent with the notion that if mimicry serves to foster affiliation, we do not necessarily expect the mimicry of an antagonistic expression. For happiness and sadness the mimicry index differed significantly from 0 in a one-sample t-test. For happiness this was the case for the first 2 seconds, $t(59) = 2.22, p = 0.030$ and $t(59) = 3.10, p = 0.003$ respectively, and for sadness for the last 2 seconds, $t(59) = 3.50, p = 0.001$, $t(59) = 3.35, p = 0.001$, respectively. Thus, the reaction to the information that the person was happy was shorter than the reaction to the information that the person was sad. The difference may be related to the observation that representations of basic expressions of emotion seem to encode information about dynamic as well as static properties suggests that sadness has a slower dynamic overall (Kamachi et al., 2001).

In sum, these data show that individuals who know that someone is sad or happy, show a facial action that is congruent with the information they received, even when there is no facial action present. The participants did not report experiencing a congruent emotional state, nor did the faces they rated show any discernible expression. Thus, these

facial reactions are not a function of an emotional state induced by the labels, nor are they an automatic reaction to a perceived facial expression.

In a control condition 60 women performed the same general task, however, they were told that the person in the photo had one of three characteristics (hesitant, conscientious, tranquil) and were asked to rate to what degree these labels matched them. No indication of facial expressive reactions emerged. That is, people do not generally react facially when evaluating a person with regard to a disposition. Thus, these data best fit the explanation that participants signaled their understanding of the other's emotional state, supporting the notion that mimicry serves to improve understanding.

Conclusion

We propose on the basis of the reviewed evidence that mimicry primarily functions to regulate social affiliation: emotionally mimicking others may create social warmth, and not doing so may create social cold. As such, mimicry is a communicative act and it communicates to the other that we know how they feel. In this sense mimicry can be said to serve a function in the larger context of affective empathy. To the degree that mimicry signals both affiliative intent and social approval (Yabas & Hess, 2007), it is a process that requires an initial affiliative relation between interaction partners or at least the absence of an antagonistic state. Whereas mimicry may be a form of "social glue" that binds people together (Lakin et al., 2003), it is not superglue and emotional mimicry only works if the relational surface is not too rough.

We therefore believe that mimicry may play an important role in the constitution of collective emotions. Because collective emotions occur in situations in which a group of people shares an emotional perspective (i.e., fear of a fire) or has a collective emotional goal (i.e., to protest) all the requirements for mimicry are present. Affiliative links between individuals enhance the likelihood of mimicry and more specifically, there is evidence that ingroup members mimic each other more than outgroup members. Furthermore, even if some individuals in the collective do not show any specific emotion, their faces may still be interpreted as emotional in the presence of situational information, and thus further reinforce the collectiveness of the emotion. Facial mimicry can thus be considered as one of the processes that may initiate and reinforce collective emotions.

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Chapter 8

Emotional contagion as a precursor to collective emotions

Elaine Hatfield, Megan Carpenter,
and Richard L. Rapson

University of Hawai'i Manoa

Ideas, sentiments, emotions, and beliefs possess in crowds a contagious power as intense as that of microbes

Gustave Le Bon (1896, p. 127)

Scholars from a variety of disciplines—neuroscience, biology, social psychology, sociology, and life-span psychology—have proposed that *primitive emotional contagion* is of critical importance in understanding human cognition, emotion, and behavior. Primitive emotional contagion is a basic building block of human interaction, assisting in “mind-reading” and allowing people to understand and share the feelings of others by “feeling themselves into” the other’s emotions (Ramachandran, 2011). In this chapter we will discuss the theory of emotional contagion, which we believe provides a theoretical foundation underlying many of the consequences (both good and bad) caused by contagion. We will discuss what historians have discovered about collective emotions, such as dancing manias and mass hysteria; what cultural psychologists and anthropologists have learned about arctic hysteria and mimicry contagion; what sociologists have learned about “mysterious” epidemics; and what modern-day epidemiologists have learned about the spread of emotions—such as happiness, anxiety, depression, and loneliness. They have concluded that these emotions are as contagious as the most virulent of infectious diseases.

Theoretical overview

Emotional contagion is best conceptualized as an interrelated grouping of social, psychophysiological, and behavioral phenomena. Theorists disagree as to what constitutes an emotion. Most, however, would agree that emotional “packages” comprise many components, including: conscious awareness; facial, vocal, and postural expression; neurophysiological and autonomic nervous system activity; and instrumental behaviors. Different portions of the brain may process the various aspects of emotion. However, because the brain integrates the emotional information it receives, each of the emotional components

acts on and is acted upon by the others (see Hatfield, Cacioppo, & Rapson, 1994, for a discussion of this point).

How have theorists defined emotional contagion? Hatfield, Rapson, and Le (2009, pp. 19–20) define primitive emotional contagion as: “The tendency to automatically mimic and synchronize facial expressions, vocalizations, postures, and movements with those of another person and, consequently, to converge emotionally.” Scholars have often measured “emotional contagion” via the Emotional Contagion Scale, or by assessing the extent to which people mimic others’ facial, vocal, and postural expressions and/or come to share others’ emotions. The *Emotional Contagion Scale* was designed to assess people’s susceptibility to “catching” the basic emotions of joy and happiness, love, fear and anxiety, anger, and sadness and depression, as well as emotions in general (see Doherty, 1997; Hatfield et al., 1994).

Possible mechanisms of emotional contagion

Theoretically, emotions can be “caught” in several ways. Early investigators proposed that conscious reasoning, analysis, and imagination accounted for the phenomenon (Smith, 1759/1966). Primitive emotional contagion, however, appears to be a far more subtle, automatic, and ubiquitous process than these early theorists supposed. There is considerable evidence in support of the following propositions (see also Hatfield, Cacioppo, & Rapson, 1994):¹

Proposition 1: mimicry

In conversation and in face-to-face interaction, people automatically and continuously mimic and synchronize their movements with the facial expressions, voices, postures, movements, and instrumental behaviors of others.

Facial mimicry

The fact that people’s faces often mirror the facial expressions of those around them is well documented (Hatfield et al., 1994; Hess, Houde, & Fischer, Chapter 7, this volume). Neuroscientists and social-psycho-physiologists, for example, have found that people’s cognitive responses (as measured by functional magnetic resonance imaging techniques: Rizzolatti & Craighero, 2004; Wild, Erb, Eyb, Bartels, & Grodd, 2003) and facial expressions (as measured by electromyography (EMG) procedures) tend to reflect the subtle moment-to-moment changes in the emotional expressions of those they observe. This motor mimicry is often so swift and so subtle that it produces no observable change in facial expression (see Hatfield et al., 2009; Lundqvist, 1995, for a summary of this research). Sato, Fujimura, and Suzuki (2008) studied Japanese college students’ facial EMG activity as they observed videos or photographs of target persons who displayed

¹ This article is based on the earlier theorizing of Hatfield, Walster, and Berscheid (1978) and Hatfield and Rapson (2004) and builds on it by providing more up-to-date evidence and relating the argument to recent research on hysterical contagion and evidence of the contagion and transmission of medical problems.

happy or angry facial expressions. They found that the happy or angry target faces evoked very different EMG response patterns. When observing happy facial expressions, participants showed increased muscular activity over the zygomaticus major (cheek) muscle region. When observing angry facial expressions, they displayed increased muscular activity over the corrugator supercilii (brow) muscle region. These effects were stronger when students were observing dynamic expressions than when observing static expressions. A great deal of research has documented the fact that infants (Meltzoff & Prinz, 2002), young children, adolescents, and adults automatically mimic other people's facial expressions of emotion (see Hatfield et al., 1994; Hurley & Chater, 2005; Lundqvist, 1995, for a review of this research). For a review of the factors that shape the likelihood that people will (or will not) mimic others' emotional expressions, see Hess and Blair (2001), Hess and Bourgeois (2006), and Hess et al. (Chapter 7, this volume).

Vocal mimicry

People have also been shown to mimic and synchronize vocal utterances. Normally, different people prefer different interaction tempos. When people interact, however, it is often the case that their speech cycles become more similar to one another's. There is a good deal of evidence from research in controlled interview settings that supports interspeaker influence in speech rates, utterance durations, and latencies of response (see Cappella & Planalp, 1981; Chapple, 1982).

Postural mimicry

Individuals have also been found to mimic and synchronize their postures and movements (Bernieri, Davis, Knee, & Rosenthal, 1991). We are probably not able to *consciously* mimic others very effectively: the process is too complex and too fast. For example, even world champion boxers like Muhammed Ali take about 230 milliseconds to detect a signal light to throw a punch in response. Yet, Condon and Ogston (1966) found that college students could synchronize their movements within 21 milliseconds (the time of one picture frame). Davis (1985) argues that microsynchrony is mediated by brain structures at multiple levels of the neuraxis and is either "something you've got or something you don't; there is no way that one can deliberately 'do' it" (p. 69). Those who consciously try to mirror others, he speculates, are doomed to look phony.

In sum, there is considerable evidence that people are capable of automatically mimicking and synchronizing their faces, vocal productions, postures, and movements with those around them. They do this rapidly, automatically mimicking and synchronizing a number of emotional characteristics in an instant (see Hatfield et al., 1994; Hess et al., Chapter 7, this volume, for a discussion of this research).

Proposition 2: feedback

People's emotional experience is affected, moment-to-moment, by the activation of and/or feedback from facial, vocal, postural, and movement mimicry.

According to Hatfield and her colleagues (1994), people's emotional experience could be influenced by: (1) the central nervous system, which is responsible for initially directing

mimicry/synchrony; (2) the afferent feedback from facial, verbal, or postural mimicry; or (3) conscious self-perception, whereby individuals make inferences about their own emotional states on the basis of their own expressive behavior. Given the functional redundancy that exists across levels of the neuraxis, all three processes may operate to insure that emotional experience is shaped by facial, vocal, and postural mimicry/synchrony and expression. Recent reviews of the literature tend to agree that emotions are tempered to some extent by facial, vocal, and postural feedback.

Facial feedback

Darwin (1872/2005) argued that people's emotions should be profoundly affected by feedback from the facial muscles:

The free expression by outward signs of an emotion intensifies it. On the other hand, the repression, as far as is possible of all outward signs, softens our emotions. He who gives way to violent gestures will increase rage; he who does not control the signs of fear will experience fear in a greater degree; and he who remains passive when overwhelmed with grief loses his best chance of recovering elasticity of mind. (Darwin, 1872/2005, p. 365)

Social psychologists have tested the facial feedback hypothesis by using a variety of strategies to induce participants to adopt a specified facial expression. Examples of these strategies include simply asking participants to exaggerate or to try to hide any emotional reactions they might have, "tricking" participants into adopting a given facial expression, and arranging a situation so that participants will unconsciously mimic the emotional facial expressions of others. In all three designs, emotional experiences tend to be affected by the facial expressions adopted from others (Adelmann & Zajonc, 1989; Matsumoto, 1987). In one of the most intriguing set of experiments designed to test the facial feedback hypothesis, Neal and Chartrand (2011) studied the impact of facial feedback on amplifying or dampening emotions. In Experiment 1 they studied people who had recently received Botox injections (which paralyze facial muscles). They found that Botox patients were less good at identifying emotions than were their peers. In a second experiment, they applied a gel that made the skin resistant to underlying muscle contractions. In this situation participants were forced to exaggerate their reactions and, as predicted, emotion perception improved.

Ekman and colleagues (1983) have argued that facial feedback affects both emotional experience *and* autonomic nervous system (ANS) activity. In an experiment, they asked participants to produce six emotions (surprise, disgust, sadness, anger, fear, and happiness) either by remembering instances when they had experienced such emotions or by arranging their facial muscles in appropriate configurations. The authors found that the act of re-living emotional experiences or of flexing facial muscles into characteristic expressions produced reactions in the ANS that would normally accompany such emotions. Thus, facial expressions seemed to be capable of generating ANS arousal.

Vocal feedback

There is also evidence supporting the contention that subjective emotional experience is affected by the activation of and/or feedback from vocal mimicry. Hatfield and colleagues

(1995) conducted a series of experiments designed to test the vocal feedback hypothesis. Participants were men and women of African, Chinese, European, Filipino, Hawaiian, Hispanic, Japanese, Korean, Pacific Island, or mixed ancestry. The authors made every effort to disguise the fact that they were interested in the participants' emotions by claiming that Bell Telephone was testing the ability of various kinds of telephone equipment to reproduce the human voice faithfully. Participants were then led to private rooms and given a cassette tape containing one of six sound patterns, one a neutral control and the others corresponding to joy, love/tenderness, sadness, fear, and anger.² The five tapes were designed to exhibit the sound patterns appropriate to their respective emotions. Specifically, the joyous sounds had some of the qualities of merry laughter; the sad sounds possessed the qualities of crying; the companionate love tape consisted of a series of soft "ooohs" and "aaahs"; the angry tape comprised a series of low growling noises from the throat; and the fearful sounds included a set of short, sharp cries and gasps. Finally, the neutral tape was one long monotone, a hum, without any breaks.

Participants were asked to reproduce the sounds as exactly as possible into a telephone. Results revealed that participants' emotions were powerfully affected by the specific sounds they produced, thereby providing additional support for the vocal feedback hypothesis (for a summary, see Hatfield et al., 2009).

Postural feedback

Finally, there is evidence suggesting that emotions are shaped by feedback from posture and movement (see Hatfield et al., 1994, for a review). Interestingly, actor and theater director Konstantin Stanislavski noticed the connection between posture and performance (Moore, 1984). He argued: "Emotional memory stores our past experiences; to relive them, actors must execute indispensable, logical physical actions in the given circumstances. There are as many nuances of emotions as there are physical actions" (Morre, 1984, pp. 52–53). Stanislavski proposed that we may relive emotions any time we engage in a variety of actions that were once associated with those emotions.

In sum: in a variety of studies, we find evidence that people tend to feel emotions consistent with the facial, vocal, and postural expressions they adopt. Currently, there is a serious debate as to the specificity of these linkages. Many social psychologists argue that the links between facial, vocal, and postural expression are quite specific: i.e., when people produce expressions of fear, anger, sadness, or disgust, they are more likely to feel not just any unpleasant emotion but the emotion associated with those *specific* expressions; for example, those who make a sad expression feel sad, not angry (see Duclos et al., 1989). Other prominent theorists dispute this. They argue that the linkages are not quite so specific. Some argue, for example, that the linkage is in terms of valence and arousal rather

² Communication researchers have documented that these basic emotions are linked with specific patterns of intonation, vocal quality, rhythm, and pausing. When people are happy, for example, they produce sounds with small amplitude variation, large pitch variation, fast tempo, a sharp sound envelope, and few harmonics.

than on discrete emotions (see Russell, Bachorowksi, & Fernandez-Dols, 2003, for an overview). Not surprisingly, since emotional contagion research is still in its infancy and of such popular interest, theorists are deeply divided about the details of how the process of contagion might work. Among the things that remain unclear, for example, are how important such feedback is (is it necessary, sufficient, or merely a small part of emotional experience?), how specific the linkages are, and exactly how the physical expression and the emotion are linked (Adelman & Zajonc, 1989; for a critical review, see Manstead, 1988). Only subsequent research will answer these questions.

Proposition 3: contagion

As a consequence of mimicry and feedback, people tend, from moment-to-moment, to “catch” others’ emotions.

Scholars from a variety of disciplines (clinical observers, social psychologists, sociologists, neuroscientists and primatologists, life-span researchers, and historians) provide evidence that people do in fact catch one another’s emotions frequently and universally and perhaps on a very large scale (Hatfield et al., 2009). Recently, discoveries in neuroscience have provided some insight into *why* people so readily “catch” the emotions of others and how they come to empathize with other’s thoughts, emotions, and behaviors (see Hatfield et al., 2009; Lamm & Silani, Chapter 5, this volume).

Neuroscientists contend that certain neurons (commonly referred to as mirror neurons) fire when a certain type of action is performed *and* when primates observe another animal performing the same kind of action. Rizzolatti (2005) and his colleagues at the University of Parma monitored the brains of macaque monkeys when they observed another monkey performing an activity (like grasping a peanut). In doing so they made a fascinating discovery. They uncovered mirror neurons—a type of brain cell that responds the same way when monkeys (or humans) performed an action as when they merely witnessed another monkey (or human) performing the same action! Researchers have suggested that these brain structures could also be responsible for “mind-reading (understanding the intentions of others),” emotional contagion, and empathy in primates, including humans (see Blakemore & Frith, 2005; Glenberg, 2011; Iacoboni, 2005; Rizzolatti, 2005; Wild, Erb, & Bartels, 2001; Wild et al., 2003).

Summary

In theory, the process of emotional contagion consists of three stages: mimicry, feedback and contagion. People tend: (1) to automatically mimic the facial expressions, vocal expressions, postures, and instrumental behaviors of those around them, and thereby (2) to feel a pale reflection of others’ emotions as a consequence of such feedback. The result is that (3) people tend to catch one another’s emotions. Presumably, when people automatically mimic their companions’ fleeting facial, vocal, and postural expressions of emotion, they often come to *feel* a dim reflection of their companions’ actual emotions. By attending to this stream of tiny moment-to-moment reactions, people are able to “feel themselves into” the emotional lives of others. They can track the intentions and feelings

of others from moment-to-moment, even when they are not explicitly attending to this information.³

Emotional contagion is a delicate process. We feel a weak reflection of others' emotions on a constant basis. We must keep in mind, however, that powerful emotions can certainly override these delicate responses. Thus, when threatened by a fearsome mugger, for an instant we might sense (and reflect) his fury. But as our cognitive and experiential processes kick in, sheer terror will likely take precedence over anger.

Contagion and emotions in collectives

Thus far, we have focused on the work of social psychologists who have devoted their efforts to discovering the exact process by which *one person* transmits his or her emotions to one of his or her peers. Scholars from other disciplines, however, have been less interested in how emotion is transmitted person-to-person than in demonstrating how crowds of people often end up in a powerful emotional and/or behavioral synchrony. How does this happen? We naturally assume that the same processes that cause individuals to "catch" one another's emotions operate in crowds of people. One person (in trying times) sparks another's fear and panic, the two of them spark similar reactions in others, and so forth, until the whole community is in a tizzy. Thus, collectives often come to share thoughts, feelings, and hysterical behaviors. Whether or not this is true, we do not know. Only more research can tell. In any case, a variety of researchers have investigated the contagion of emotion and behavior of people in a variety of communities. In the following sections, we will review this research.

Contagion: historical examples

There is considerable evidence that a variety of emotions are capable of affecting whole groups of people—especially when people are under stress. In the Middle Ages, in the wake of the Black Death, dancing manias swept throughout Europe. Klawans (1990) describes the "sorrow and anxiety" which drove people "to the point of hysteria":

[The bubonic plague, the infamous Black Death] appeared [in the 12th century.]...It...broke over Europe in a great wave. Entire villages were exterminated. Fields became neglected. Soon famine complicated the pestilence. And just as the plague receded and the population and economy began to recover, another wave struck... It was at that point that the dancing mania began and spread like a contagion. Today, most historians view this phenomenon as a form of mass hysteria. (Klawans, 1990, pp. 236–237)

One anonymous writer (reported in Hecker, 1837/1970) described the twelfth-century madness this way:

The effects of the *Black Death* had not yet subsided and the graves of millions of its victims were scarcely closed, when a strange delusion arose in Germany, which took possession of the minds of

³ Cognitive psychologists are engaged in a fierce and fruitful debate as to how important an understanding of intention is in understanding mimicry and its consequences. That debate is, of course, beyond the scope of this paper. People interested in this debate might consult Hurley & Chater (2005) for a review of this debate and relevant research on the topic.

men, and, in spite of the divinity of our nature, hurried away body and soul into the magic circle of hellish superstition . . . It was called the dance of St. John or of St. Vitus, on account of the Bacchantic leaps by which it was characterized, and which gave to those affected, while performing their wild dance, and screaming and foaming with fury, all the appearance of persons possessed. It did not remain confined to particular localities, but was propagated by the sight of the sufferers, like a demoniacal epidemic, over the whole of Germany and the neighboring countries to the northwest.
(Hecker, 1837/1970, ch. I, section 1)

A variety of historians went on to explain: dancers abandoned all reason. They shrieked and cried as their minds were possessed by spirits and horrific visions. Sometimes, glory to God, the heavens rent apart and the Savior and the Virgin Mary descended to earth on a wave of heavenly music. Sometimes they found themselves swept up in a cascade of blood. Often the mania began or ended with epileptic convulsions.

The dancing mania spread from town to town. In Cologne, 500 joined the wild revels; in Metz, 1100 danced. Priests tried to exorcise the devils. Sufferers traveled to the Tomb of Saint Vitus in southern France to be cured. Paracelsus, a sixteenth-century physician and alchemist, devised a harsh but effective treatment for the dancing mania: he dunked the victims in cold water, forced them to fast, and condemned them to solitary confinement. The hysterical outbreaks began to subside.

Historically, religious ecstasy has been common. Traveling in the mid-nineteenth century, for example, Frederick Law Olmsted observed a black Christian service in New Orleans and was swept up by the “shouts, and groans, terrific shrieks, and indescribable expressions of ecstasy—of pleasure and agony,” to the point where he found his own face “glowing” and his feet stamping, as if he had been “infected unconsciously” (quoted in Ehrenreich, 2006, p. 3). Today, any celebrant at a religious tent revival can share Olmsted’s experience.

“Civilized people” often look down upon such collectivist expressions of ecstasy—labeling such passion as a “disgusting and fiendish saturnalia,” “hideous, hellish practices,” “insane possession,” or “hysteria.” Nonetheless, such contagious collective joy has existed in all societies, in all times, and in all places. Historian Ehrenreich (2006), in *Dancing in the Streets: A History of Collective Joy*, provides a vivid review of the power of the contagious and collective ecstasy that has off’ swept communities.

Historians have documented a multitude of cases of emotional contagion sparking collective joy and mania (Ehrenreich, 2006), political and revolutionary passion (Hatfield & Rapson, 2004; Rude, 2005), religious frenzies (Ehrenreich, 2006), anger and hatred, senseless riots and violence (Church, 1964; McCague, 1968), and fear and panic (Bernstein, 1990; Cook, 1974; Headley, 1971; Lefebvre, 1973). The sweep of these historical narratives make for compelling reading. One need only think of Hitler’s mass Nuremberg rally, or inflamed Arab crowds screaming “Death to Israel. Death to America,” to sense the danger of emotional contagion. Or, on a much lighter note, the wild ecstatic joy of players who just won the World Series, or teenagers at a Lady Gaga or Justin Bieber concert. These examples are all around us, and are often consequential historically. Psychologists studying emotional contagion have focused their efforts almost entirely on figuring out how this process occurs. When discussing the practical implications of such contagion, they

mention “mind reading,” “social coordination,” and the like. When we step back and take a historical, cultural, anthropological, sociological, or medical perspective, we see that (regardless of how such contagion operates) and whatever we call the contagion—be it called hysterical contagion, the madness of crowds, or mass psychogenic illness—it is evidence of how powerful the collective process is.

Emotional contagion: cultural and anthropological examples

Tseng and Hsu (1980) defined mass hysteria as: “A sociocultural-psychological phenomenon in which a group of people through social contagion, collectively manifest psychological disorders within a brief period of time” (p. 77). Anthropologists (Czaplicka, 1914) provide detailed documentation of such contagion, including “arctic hysteria” or “mimicry mania” in northern Asia. One author, Czaplicka (1914), summarizes several reports:

In a Middle Vil[yui River] village, Maak knew many Yakut women suffering from a very common disease which shows itself in the patients imitating all the gestures and words of bystanders, whatever their meaning, which was sometimes quite obscene... He quotes also an episode which was related to him by Dr. Kashin, who was much interested in this disease. Once, during a parade of the 3rd Battalion of the Trans-Baikal Cossacks, a regiment composed entirely of natives, the soldiers began to repeat the words of command. The Colonel grew angry and swore volubly at the men; but the more he swore, the livelier was the chorus of soldiers repeating his curses after him. (p. 313)

Relief may be equally contagious. Watson (1976) describes the case of an Indonesian who ran *amok* once or twice a month. He would be seized by a sudden vision and run through the village, his eyes bulging and his hair standing on end. In the temple he would alternately scream defiance, hack at the air in panic, or crouch, whimpering in pain. Finally, he was emotionally spent. There was a sudden stillness, and then:

Naum stood and looked at the crowd on the beach. He smiled tentatively. The people smiled back. Naum giggled, and a wave of response moved through the crowd. Naum grinned. The people beamed. Naum offered a laugh, and it came out rather high and shaky, as though it were something he had never tried before.... Then Naum burst into a great roar of laughter, a huge sound that flooded out on a tide of release, and suddenly all the others were laughing together, holding on to each other, staggering around the beach, collapsing in heaps, laughing until the tears ran down their cheeks. (p. 132)

Cross-cultural scholars and anthropologists have documented many examples of the contagion of emotions and strange behavior in collectives (see Hatfield et al., 1994, for a review of this voluminous research.)

Hysterical contagion: sociological examples

In 1962, Kerckhoff and Back (1968) watched a drama unfold. The first reports on the 6 o’clock news suggested that a mysterious epidemic had hit a Montana factory:

Officials of Montana Mills shut down their Strongsville plant this afternoon because of a mysterious sickness. According to a report just in from Strongsville General Hospital, at least ten women and

one man were admitted for treatment. Reports describe symptoms as severe nausea and breaking out over the body. Indications are that some kind of insect was in a shipment of cloth that arrived from England at the plant today. And at the moment the bug is blamed for the outbreak of sickness. (p. 3).

The mysterious illness soon raced through the plant. In a few weeks, more than 59 women and three men in the 965-person plant were stricken with the mysterious illness, characterized by panic, anxiety, nausea, and weakness. Experts from the U. S. Public Health Service Communicable Disease Center and university entomologists were brought in. The vast textile plant was vacuumed for specimens. The total catch consisted of one black ant, a housefly, a couple of gnats, a small beetle, and one mite. Nonetheless, the plant was fumigated. In the end, scientists concluded that hysterical contagion had sparked the epidemic.

To find out which workers had been susceptible to hysterical contagion, and why, Kerckhoff and Back (1968) conducted a series of interviews. They talked to those who had fallen ill, to those who had not, and to those who had witnessed the epidemic. They also studied medical records. Their conclusions were along these lines:

- (1) Workers were most likely to catch the “disease” if they had been under severe stress at the time the “epidemic” struck. Women were most susceptible if they were experiencing marital problems, if they were responsible for supporting their families, felt trapped, and were overworked and exhausted at the time the epidemic hit. Workers were especially vulnerable if they lacked coping skills. Women did not catch the disease if they did not have the “luxury” of falling ill. Women who had job security quickly succumbed. Women who reported needing a job desperately, who felt insecure about their abilities, were straining to produce, who felt obligated to keep their job at any cost, and were worried about being laid off did not get sick.
- (2) Initially, the majority of the victims were social isolates, who had a history of “nervousness” and fainting. Once the panic began to spread, however, workers were most likely to catch the disease if they had close emotional ties with the other “infected” workers. Women who were members of other social groups, social isolates, or outsiders (either because they were black, new at the plant, or because their workstations separated them geographically from the victims) did not get sick. Many such women, in fact, were often so little touched by the epidemic that they were skeptical that an “epidemic” had ever existed.

Such “epidemics” have been documented throughout the world. In Singapore in 1973, for example, workers at a large television factory suddenly became hysterical. Some had seizures; they fell into a trance state, screamed and cried, sweated, and struggled violently (swinging their upper limbs and kicking about). More became frightened. They complained of dizziness, numbness, and faintness. Physicians gave the workers valium and chlorpromazine and sent them home. They calmed down, but the hysteria quickly spread to other factories (Chew, Phoon, & Mae-Lim, 1976). Such mass hysteria is common today

(Dominus, 2012). Even the most sophisticated medical techniques generally can find nothing wrong.

Emotional contagion: clinical examples

Recently, researchers from several universities examined whether mathematical models, developed to predict the spread of a variety of infectious diseases, could also be applied to the spread of emotions—such as happiness, anxiety and depression, or loneliness. They concluded that these emotions are as contagious as the most virulent of infectious diseases.

Joy, happiness, and enthusiasm: in a study of nearly 5000 individuals who participated in the Framingham Heart Study from 1948 until the present, it was found that happiness and enthusiasm spreads through social networks of family, friends, neighbors, and the wider community much like other infectious diseases (Cristakis & Fowler, 2011; Hill, Rand, Nowak, & Christakis, 2010).

Anxiety, depression, and loneliness: clinicians have long known that anxiety and depression are contagious. Coyne (1976), for example, invited University of Pennsylvania students to participate in a study examining the process by which people get acquainted. They were instructed to call a woman, located somewhere in Ohio, and chat with her on the telephone for 20 minutes. The woman with whom they chatted was, unbeknownst to them, either known to be depressed or non-depressed. Dealing with someone's depression took a toll. Those who spoke with a depressed woman became aware that she was sad, weak, passive, and in a low mood. They came away from the encounter feeling more depressed, anxious, and hostile than before, and were not eager to talk to her again. Participants who talked to a non-depressed woman naturally did not have such disagreeable reactions. Similar results were found by Howes, Hokanson, and Lowenstein (1985). Medical researchers have also found that contagion sparks such collective emotions as loneliness (Cacioppo, Fowler, & Christakis, 2009; Cristakis & Fowler, 2011).

Originally, the theory of emotional contagion was designed to predict the way in which individuals (senders) transmit their emotions to others (receivers) one-to-one. Historians and sociologists have generally focused not on charting the individual and interindividual stages in this process but simply on documenting its existence—i.e., on documenting that emotional contagion does in fact exist. In addition, they have been interested in the way that a person (or groups of people) can transmit their emotions to whole communities.

Emotional contagion: medical examples

In the last few years, epidemiologists have begun to study mass psychogenic illnesses (where symptoms rapidly appear in groups of people through social contagion) and the transmission via contagion of a variety of diseases. Some of these scholars assume that intellectual or emotional contagion underlies such transmission. Others do not specify the process underlying such transmission—merely making an analogy with the vast literature on contagion. We will consider these views next.

The contagion of obesity

Christakis and Fowler (2011) garnered a great deal of attention when they proposed that social contagion predicted that obesity can spread through a social network, just like viruses spread, because people “infect” others with their perceptions and habits. They examined data from the Framingham Heart Study, described earlier. Among the participants, obesity had increased from 14% in the 1970s to 30% in 2000. Based on their data, they found that the rapid increase in obesity rates was due largely to social network influence. Of course other factors influence obesity, such as access to unhealthy food and a sedentary lifestyle. Nonetheless, it was contagion that was the most powerful determinate of weight. The authors found that if you were, for example, obese, those with whom you had close contact were likely to become obese, too. Specifically, a typical American has a 2% chance of becoming obese in any given year. The probability rises by 0.4% with each obese social contact one has. So if one has five obese friends, that doubles one’s risk of becoming obese. The authors’ flamboyant statements: “Your colleague’s husband’s sister can make you fat, even if you don’t know her,” naturally garnered worldwide press attention. In its wake came several statistical critiques (see Kolata, 2011). Researchers have also found that smoking, sleep problems, illegal drug use, depression, and divorce are contagious too (Christakis & Fowler, 2011). Whatever its merit, the authors’ research provoked a great deal of medical research designed to trace the epidemiology of various diseases.

Conclusion

In this chapter we have traced the role of emotional contagion theory in explicating the spread of collective emotions. Early sociologists such as Gustav Le Bon (1896) sparked an interest in the “group mind” and the “madness of crowds.” They explored the process of hysterical contagion in a variety of societies and natural settings. In the 1970s, however, social psychologists proposed a theory of emotional contagion, focused on individuals rather than crowds. They attempted to pin down the process by which one individual transmits his or her emotions to another person or small group. Today, however, clinicians, psychologists, physicians and epidemiologists, echoing Le Bon, have begun to apply emotional contagion theory to collective emotions and the social contagion of various mental and physical diseases. We concluded this chapter by reporting on the new and compelling research documenting that, under a variety of conditions, partners and even entire communities may catch their fellows’ moods and emotions. The list of emotions and behaviors subject to contagion is long. It includes joy and happiness, depression, and loneliness; physical problems, such as allergies, obesity, reactions to chemical spills and environmental hazards, and the like; and social and health-related problems, such as smoking, sleep problems, illegal drug use, depression, and divorce. Contagion theory seems to be opening many doors to better understanding human behavior.

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Section 3

The social-relational dimension of collective emotion

Chapter 9

Relational emotions and social networks

Ilmo van der Löwe and Brian Parkinson

University of Oxford

Emotion is clearly a social activity. Most emotions take place in a social context, operate on social input, and serve various social functions (Parkinson, 1996; Parkinson, Fischer, & Manstead, 2005). People use emotion to communicate important information about who they are, how they wish to be treated, and how they feel about situations (Hareli & Hess, 2010; Keltner & Kring, 1998). Likewise, people read other's emotions to decide appropriate social behavior (van Kleef, De Dreu, & Manstead, 2004). In this chapter, we posit that an important social function of emotion is to manage people's relations with each other. As such, emotions are both a way to understand these relations and a tool to shape them. In short, emotion can align relations between people—including groups of people—and objects (Parkinson, 2009).

The exact meaning of *collective emotion* is open to interpretation, largely because *emotion* itself remains notoriously difficult to define (e.g., Russell, 2003; Scherer, 2005). When a group experiences an emotion, it could be the result of the emotion bubbling up from the individual level to the top, or a top-level “hive mind” transmitting it down to the ranks. Instead of presupposing one causal direction, we leave open a possibility that heterogenous social processes operate simultaneously and argue that a promising way to make empirical progress is to study emotion in a context that recognizes the various levels at which emotion can operate (e.g., individual, pair, group, and culture; Averill, 1992; Keltner & Haidt, 1999). We conceptualize the relation-alignment function of emotion as a networked, dynamic process that cuts across these levels of analysis.

This chapter frames relational emotions with network terminology and concepts. Network science is a blossoming discipline that studies how networks of all kinds behave (Strogatz, 2001). A wide range of phenomena—both in natural and social sciences—can be conceptualized as networks (e.g., gene co-regulation, neural activity, trade between nations, telecommunications etc.). Network science seeks to discover common principles, algorithms, and tools that govern their behavior. In short, it is about formulating and solving problems that have a network structure. This approach is highly compatible with social sciences, as everyday relationships underlying human social behavior are easy to conceptualize in network terms (for paradigm overview, see Marin & Wellman, 2011).

While network science is the study of all networks, social network analysis (SNA) is the application of network science to networks of people: it is the study of dynamic social structures. Instead of analyzing individual behavior, cognition, or emotion in isolation, social network analysis focuses on how people interact with each other and how these interactions create a dynamic structure that can be studied in its own right. By using networks as explanatory tools, it is possible to understand how processes in one level of the network system affect other levels, from the micro to the macro (Marin & Wellman, 2011; Wasserman & Faust, 1994).

Social network analysis

Because SNA is fundamentally relational, it can describe and analyze interpersonal phenomena better than tools that are blind to interdependencies between people (Wasserman & Faust, 1994). SNA centers on the relations that connect people rather than on the people alone: the locus of causation is not solely within the individual. Instead of having to study people as independent and isolated individuals, social network analysis allows the researcher both to see the big picture and to keep the small details in sharp focus at the same time.

Just as intrapersonal mechanisms give rise to interpersonal processes at the dyadic level, interpersonal relations at the dyadic level are an integral component of more inclusive social networks. Various different types of relations can be used to define a network, including communication relations (e.g., who talks to whom, or who gives advice to whom), role-based relations (e.g., who is whose supervisor), affective relations (e.g., who likes whom, or who trusts whom), exchange relations (e.g., who gives material support to whom), and spatial relations (e.g., who is co-located with whom) among others (Wasserman & Faust, 1994). In natural contexts, many social networks are multiplex, that is, actors share more than one type of relation. For example, co-workers may have role-based relation through one reporting to the other and affective relations through being friends. Relations may be non-directional (e.g., Joe and Al attended the same event) or directional (e.g., Ivan owes money to Joe). Relations may also vary in frequency and valence, ranging from positive (Joe likes Dawn) to negative (Linda dislikes Sarah).

For the study of emotions, SNA offers an integrative perspective that respects their relational core. Five principles summarize the network approach (Wellman, 1988). First, behavior is best predicted by people's relations instead of their intrinsic qualities like attitudes or demographic characteristics, because the network of relations present opportunities and impose constraints on what individuals can feel and do. Therefore, if two people behave similarly, it suggests that their social networks are similar (instead of them both belonging to the same category, e.g., based on race or gender). Second, analysis of isolated people or their individual differences can be misleading if the relations between them are not taken into account. Third, since all network data is relational by default, the conventional assumption of statistical independence must be abandoned and interdependence among people should be assumed. Fourth, understanding a network cannot be done by

aggregating the dyadic ties as the overall shape of the network gives context to each dyad. For example, in Shakespeare's *Romeo and Juliet*, the crucial point is not that the lovers have a dyadic relation, rather than that each lover is embedded in a separate cluster of people, and these clusters do not communicate with each other. Fifth, social life consists of overlapping networks instead of rigid, well-defined groups, and individuals may have relations with many groups.

There are two principal ways of looking at networks: *ego-centric* (or personal) networks and *socio-centric* whole networks. Garton, Haythornthwaite, and Wellman (1997) compare personal networks to the geocentric model of the solar system in which the focal person (i.e., *ego*) is located at the center of their social universe and members of the network are defined by their specific relations with him or her. This approach is particularly useful when the boundaries of the relevant population are hard to define. A modern example of this type of a network can be found on *Facebook*, a social media site on which users can map and interact with their personal networks, but cannot see the networks of other people. Analyzing an ego-centered network can show patterns in the breadth and depth of connections that the individual at its center has.

The second, socio-centric way to define a network considers a whole network based on some specified criterion to demarcate the population of interest. The boundaries for the population can be defined, for example, by membership in a formal hierarchy, such as a corporation, a cohort, or a club. Methodologically, the collection and analysis of such data differs from typical quantitative social science studies: instead of random samples, SNA data collection aims to include all of the actors in the network, not just a probabilistic sample thereof. Since every potential member of the population needs to be surveyed, this places practical limits on the size of the whole networks that can be defined (although modern online data collection is extending the researcher's reach beyond the scope of paper-based methods).

SNA involves various kinds of measures pertaining to individual actors in the network, their relations, and the overall structure of the network itself (for extensive review, see Wasserman & Faust, 1994). At the level of an individual actor, these measures can quantify how many people the actor can reach directly (degree), how likely it is that the actor is on the most direct route between two people in the network (betweenness), how fast the actor can reach everyone in the network (closeness), and how well the actor is connected to other well-connected people (eigen-vector centrality). Dyadic analyses can provide information about reciprocity and strength of relations, among other things. At the triadic level, researchers can quantify the balance and transitivity of relations (e.g., friends-of-friends becoming friends). When structures that are larger than triads are considered, SNA can yield measures of network distance between actors, density of relations, and cohesion within subgroups as well as the size and other characteristics of the entire network.

Networks truly come alive as entities that evolve over time. Many real-world networks are in constant flux and a single observation of a network is of limited scope: the dynamics of a network and its actors cannot be explained without a time dimension

(Burk, Steglich, & Snijders, 2007). In order to fully understand processes that shape networks and the actors within requires the ability to model (multiple) networks over time. Stochastic actor-oriented models (SAOMs; Snijders, 2005) are one of the most sophisticated analysis tools currently available. They allow researchers to differentiate the effects of influence (i.e., actors becoming similar to the company they keep) from those of selection (i.e., actors choosing to keep company with similar others) in an evolving network (for software to do this, see RSiena: Ripley, Snijders, & Preciado, 2012; and R statistical environment: R Development Core Team, 2012). For example, SAOMs could trace the genesis of collective emotion: Does it spread through a population like a wildfire or turn on simultaneously like a lightbulb? Do pockets of strong emotion form when likeminded individuals find each other, or are people converted by zealots?

SAOMs use observed network data as a basis for statistical simulations to quantify factors that influence how the actors create, maintain, and dissolve relations with each other. For example, instead of initiating relations with people at random, actors in a network might prefer friends of friends (i.e., transitivity of relations). By running multiple simulations of network behavior, it is possible to estimate the strength of such transitivity effect among the actors by determining which parameter value for the effect produces networks that are closest to the observed real-world network.

Individuals as social actors

Networks can seamlessly link different levels of analysis, because they are hierarchically embedded in each other. The levels of a social network correspond very well with intrapersonal, interpersonal, social, and cultural levels of analysis presented by Keltner and Haidt (1999). The first, intrapersonal level of analysis focuses on people as individuals. In SNA terms, each person is conceptualized as a social actor with the capacity to create, maintain, and dissolve relations with other actors. As such, actors constitute the basic building blocks of any network.

At the intrapersonal level, emotions serve two broad functions that have relational implications. First, emotion provides people with information about social events or conditions (e.g., Clore & Storbeck, 2006). For example, the depth of experienced love gauges one's level of romantic commitment (Frank, 1988). Second, emotion prepares the individual to respond to problems or opportunities (Darwin, 1872/2005) through changes in cognition (e.g., Clore, Schwarz, & Conway, 1994) and physiology (e.g., Levenson, 1999; Susskind et al., 2008). If fear encourages a quick withdrawal from the reach of a hostile other, it also prepares one's legs for the task by directing blood to the large muscles in them (for a review of emotion-induced autonomic changes, see Kreibig, 2010).

Until recently, emotion research was dominated by studies that focused almost exclusively on the intrapersonal aspects of emotion. While this research program has been very productive, it runs the risk of missing the big picture. Because emotions are fundamentally social phenomena (Parkinson, 1996; Páez & Rimé, Chapter 14, this volume; Rimé, 2009; de Rivera, Chapter 15, this volume; Krueger, Chapter 11, this volume), studying

them only at the level of isolated individuals is short-sighted. From the relation-alignment perspective, the functions and effects of emotion at the intrapersonal level are just means to an end. One of the main purposes of emotion's intrapersonal effects is to prepare the individual to navigate social relations.

Although the relation-alignment functions of emotion are enabled by intrapersonal mechanisms and enacted by individuals, the relations that are of concern here are rooted in the interpersonal give-and-take that unfolds between individuals, as discussed in the next section. The strength of SNA is that individual-level outcomes and effects can be used in higher-level analyses and vice versa. For example, Selfhout and colleagues (2010) found that individuals who score high on extraversion (i.e., intrapersonal trait) tend to select more friends than people with low extraversion (individual behavior) and select others with similar levels of extraversion to their own (interpersonal relations).

Interpersonal relations

At the second level of analysis, emotion manifests in specific interpersonal—often face-to-face—interactions between individuals, making it inherently relational. This immediate interpersonal contact is the domain of facial expressions, vocalizations, gaze directions, posture, and other subtle—or not so subtle—signals of emotion. In one-on-one interaction, emotion unfolds like a mutually responsive dialog that is conducted through multiple simultaneous channels. In some cases, these signals are strategic; in others, they may be involuntary. One of the advantages of face-to-face non-verbal communication is that people adjust to each other dynamically without having to stop and pause to take in the explicit meaning of the information being communicated.

Commonly these emotional encounters take place between pairs of actors (i.e., dyads), which highlights their relational nature. While emotion does involve within-person internal states, it can be more fruitfully understood as a relation between persons (e.g., de Rivera, 1977; de Rivera & Grinkis, 1986; Parkinson, 1996; Parkinson et al., 2005). From this viewpoint, emotions are not mere subjective responses to an external situation. Instead, they are a transaction between person and situation. Emotions are dynamic and embodied modes of engagement that reconfigure relations in the shared environment, conveying information both to self and others about these relations and shaping them at the same time.

Interpersonal anger and contempt

The relation-alignment perspective suggests that emotions are always about some socially relevant object, which may be: (1) the individual with whom one is in direct interaction, (2) that individual's behavior or experience, or (3) some separate event that has affected one or both of the individuals interacting. At the interpersonal level, emotion is an active process of negotiation whereby people seek to determine the relation between them: emotions orient themselves to the actual or anticipated consequences of others. Anger and contempt are good exemplars of such social emotions, because they are fundamentally communicative and oriented towards relations.

Anger aims at getting something done by forcing a change in others' behavior, especially when one feels that one has the means to do so, whereas contempt aims to exclude the other person from social contact (Fischer & Roseman, 2007; Roseman, Wiest, & Swartz, 1994). From a relation-alignment perspective, anger aimed at someone signals that the relation with that person is still viable and their behavior subject to change, whereas contempt indicates that the other person is appraised as unworthy or inferior and the relation as beyond reconciliation. Thus, anger signals that the relationship is at risk, contempt signals that the relation no longer exists.

Parkinson (2001) argued that anger has developed as a strategy for regulating others' conduct in face-to-face interactions. Real-time responsiveness to posture, gesture, and facial movement allows people to adjust their own orientation so that full-blown anger is often averted. Initial symptoms of disapproval may be met by conciliatory signs or back-tracking movements. For example, if an angry scowl is met with apologetic guilt that amends the cause of the anger, even a brief exchange of emotion can avoid costly conflicts and repair relationships. Since in interpersonal interaction there are two actors, emotions of one can reciprocally influence the other's emotions in a mutually reinforcing feedback loop. For example, a person may be angry for being the target of someone's anger, which may lead to a vicious cycle of escalating anger. A more virtuous circle may kick in gear when one begins to show guilt about the original cause of anger. In network terminology, reciprocated anger relations might dissolve relations over time, whereas unidirectional anger met with guilt is likely to maintain relations.

Emotion beyond dyadic interaction

Although relational emotions are grounded in dyadic processes, there are many reasons why they organically extend beyond exclusive pairs of individuals. For one, people tend to kiss and tell: even emotion that is initially experienced either in isolation or within a dyadic relationship may propagate beyond the initially involved individuals. When people experience a strong emotion, they almost invariably share it later with others (*social sharing*, Páez & Rimé, Chapter 14, this volume; Rimé, Mesquita, B., Boca, S., & Philippot, 1991; Rimé, 2009). Emotion that unfolds in one interaction is very likely to be shared later in another, linking individual dyads into a larger, networked structure. Likewise, people are not limited to experiencing emotions only about the person with whom they are presently interacting. Many interpersonal encounters occur in the presence of more than two persons, creating multiple simultaneous dyadic relations and the tension in many social situations is caused by the competing demands of each relation (Fleming, 1994). Relational emotions often operate in a dynamic social context of multiple interacting individuals, and perceptions of others' emotions or appraisals can change and calibrate how people think and feel about the situation and the actors in it (Manstead & Fischer, 2001).

What makes networks the true home of emotions is that people can feel emotions in relation to several other people, even in the absence of a direct personal relation with them (Yzerbyt, Dumont, Wigboldus, & Gordijn, 2003). Even in the smallest social network, a fundamental premise is that one relation can influence another. Heider's (1958)

balance theory posited that if two individuals were friends, their evaluations of an object should converge. Later on, it was argued that the object could be a third person in a network (Holland & Leinhardt, 1976). Thus, emotions toward a target can configure others' relations with the target and coordinate their target-directed action (Peters & Kashima, 2007; Repacholi & Meltzoff, 2007; Sorce, Emde, Campos, & Klinnert, 1985). As a consequence, emotional and relation-alignment processes are likely to be distributed over many actors and their relations in a network. We posit that in addition to shaping direct, interpersonal relations, emotions can orient themselves toward reconfiguring larger patterns of relations between multiple actors and objects. This means that emotions between two individuals can impinge on relations shared by others.

As an example, jealousy inherently focuses on extra-dyadic relations. As an emotion, it is rooted in evolutionarily adaptive mate-guarding behaviors (Buss, Larsen, Westen, & Semmelroth, 1992), but the general pattern applies to other situations in which an intimate relationship is perceived to be in jeopardy because of others' relational advances. From a network perspective, romantic jealousy is based on the possibility that one's intimate dyadic relation becomes a love triangle (i.e., a triad) or that it is dissolved altogether. Fig. 9.1 presents a triadic diagram applicable to a jealous situation. In the figure, actor A may feel that his special relation with B is threatened by the possible new relation between actors B and C. For the jealousy to be triadic, actor C does not need to be present physically, just symbolically. The emotional encounter that takes place between actors A and B can thus aim to act on the A-B relation as well as the B-C relation.

This triadic analysis can be scaled up to involve groups larger than just three individuals by positing that the emotion-relation dynamic operates wherever relations are found. Since many real-world emotions take place in contexts that involve multiple individuals (e.g., school, family, workplace, etc.), it is worth noting that even relatively straightforward emotions can reflect intricate interdependencies between all of the people involved.

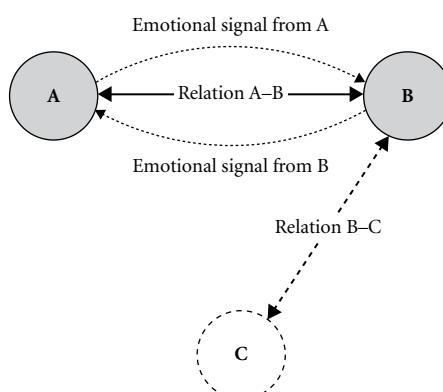


Fig. 9.1 Triadic relations in jealousy.

Groups and network clusters

The third level of analysis involves the interlocking relations within and between numerous individuals. However, the definition of a group differs in the social identity and network approaches. For the purposes of clarity, we will use two words to disambiguate these two definitions in the rest of this chapter. To maintain the common intergroup sense of the word “group,” we will use this term to mean a primarily cognitive way to categorize people. In this sense, groups are built around socially relevant attributes, such as ethnicity, religion, or other exogenously determined or imposed factors.

To a social network researcher, on the other hand, “the world is composed of networks, not groups” (Wellman, 1988, p. 37). Rather than focusing on the self-categorization and social identity of individuals, the network approach finds clusters of people based on their relations with others. Thus, cohesive communities are discovered algorithmically from the overall network as emergent structures (Wasserman & Faust, 1994). A network has a community structure if its actors can be divided into sets in which those actors have many relations with each other, but only sparse connections outside their group (Girvan & Newman, 2002). Only after these clusters have been identified in the data, does the label “group” become a meaningful construct with predictive power. Thus, it is the broader patterns of relations within the network that give individuals and their relationships context (Borgatti, Mehra, Brass, & Labianca, 2009).

We will use the word *cluster* to indicate sets of specific individuals who are connected to each other with interconnected relations. With these terms, Republicans as a *group* would indicate a politically based cognitive label that people use to classify others and themselves. Republicans as a *cluster*, on the other hand, would identify a cohesive community of conservative individuals that emerges from the overall pattern of relations in a network. As a real-world illustration of such clustering, Adamic and Glance (2005) showed how political bloggers in the United States form two distinct communities based on who links to whom. While the communities that emerged from the blogs’ linking habits largely matched the bloggers’ political orientation, the correspondence between groups and clusters in other domains remains an empirical question.

Group emotion

Group emotion has typically been studied using the social identity approach, which draws on two distinct, yet closely related social psychology theories: social identity theory (Tajfel & Turner, 1979) and self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987; see also Ray, Mackie, & Smith, Chapter 16, this volume). From this perspective, a major determinant of emotion is the perceived group membership of self and others. Instead of categorizing themselves in terms of personal identities, social actors may be primed by the social context to self-categorize in terms of a relevant social identity (as a member of a salient group). Self-categorization as a group member changes the norms that govern behavior, affects perceptions of ingroup and outgroup members (increased ingroup homogeneity, increased differentiation from

outgroups), and more generally leads to enactment of the activated social identity (Turner et al., 1987).

Self-categorization also influences emotion because events that are relevant to one's group become personally relevant when one sees oneself as a group member. For example, Doosje, Branscombe, Spears, and Manstead (1998) showed that people may feel guilty for misdemeanors committed by their group rather than by the self, depending on their level of identification with the group (see also Ferguson & Branscombe, Chapter 17, this volume). Moving from group to intergroup emotions, actions of outgroups also accrue particular emotional significance when people self-categorize in terms of social identity (e.g., Yzerbyt, Dumont, Gordijn, & Wigboldus, 2002).

The intergroup emotion literature since Durkheim (1912/1915) has generally focused on how social identities give rise to intergroup emotion, but Livingstone, Spears, Manstead, Bruder, and Shepherd (2011) demonstrated that emotion can shape social identities as well. For example, when an individual gets emotional about something, and the emotional experience is shared by others, the "emotional fit" of the experience self-implicates a group with similar passions. While the sharedness of the emotional experience helps to shape one's social identity, the content of the shared emotion suggests avenues for collective action. Thus, emotions can help demarcate the boundaries of ingroups and outgroups.

If experiencing emotions gives people a new sense of "us" and "them," as suggested by Livingstone and colleagues (2011), it can also guide daily interactions and reconfigure everyday relations. For example, someone who feels compassion toward one group and contempt toward another would be likely to treat people in them differently: some individuals might receive welcoming sympathy, others hostile rejection. By making people selectively attract or repel each other, emotions can sort them into like-minded clusters.

Network emotion

The strength of the social network approach is that people can be connected to groups with varying levels of embeddedness through their interpersonal relations (Granovetter, 1985) in addition to their perceived group memberships. Suppose that Fig. 9.2 represents a network of individuals who self-categorize themselves as either "black" or "gray." In the graph, the circles represent individuals and lines the friendship relations among them. The large dotted circles indicate network clusters that can be mathematically identified by actors' dense interrelations, and their sparse relations with actors outside the cluster. (The dashed line from A to C represents a potential relation and will be discussed later.)

Even a brief visual examination of the network conveys a lot of information. For example, there is a single cut-off point: removing actor B would separate the network into three disconnected components. Thus, actor B occupies an important role in the network and can broker information and opportunities between the clusters (Burt, 1992). In social network analysis, there are measures to quantify how easily networks can be cleaved into separate clusters and how unambiguous the resulting divisions would be. In other words, analyzing the number of relations between people in a network can put precise numbers on the level of integration within and between clusters (Porter, Onnela, & Mucha, 2009).

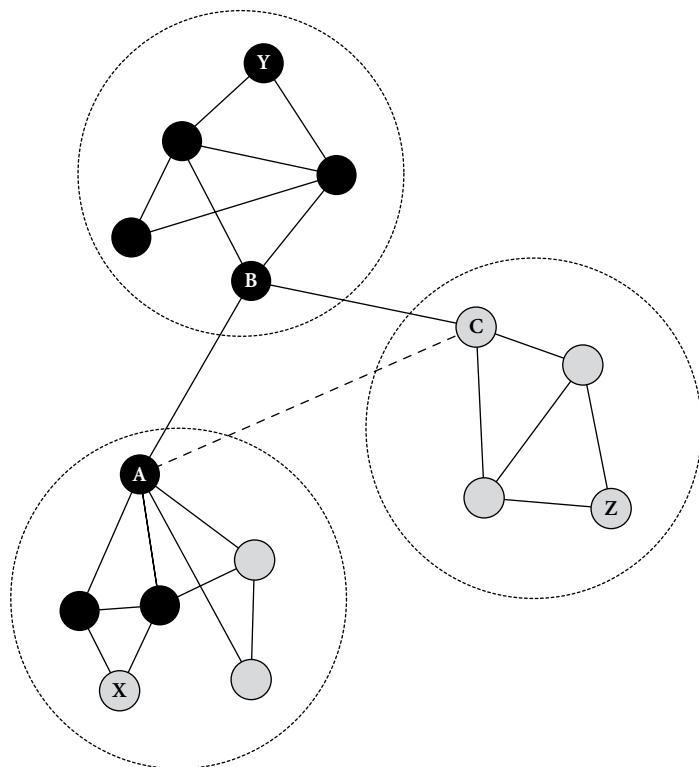


Fig. 9.2 Community structure versus identification with a group.

Another feature of the network in Fig. 9.2 is that the clusters are not entirely based on whether the actors identify themselves as black or gray: while two of the clusters are homogenous in terms of their members' group identification, the third cluster contains both black and gray members. Instead of using information about different levels of identification, a network analyst would use the observed structure of relations to predict actor C's emotions toward actor A. For example, since C is friends with B, who in turn is friends with A, it follows that C is likely to become friends with A as well (i.e., transitivity of relations). This prediction can be made from the pattern of relations alone without any reference to the individual characteristics, such as group identification, of actors C or A.

Similarly to the emotional fit principle, which states that emotions can influence social identity (Livingstone et al., 2011), we propose that the “structural fit” of one’s network position can be an additional influence on social identity, self-categorization, and emotion. Sidanius, Van Laar, Levin, and Sinclair (2004) found that students in ethnically segregated student groups felt more victimized. From our perspective, mapping the participants’ positions in the actual social network on campus could provide valuable information to supplement data on individual ethnic identity and intergroup attitudes. For example, in Fig. 9.2, actors Y and Z—who are both far removed from intergroup contact opportunities—might harbor more negative emotions toward their respective outgroups

than the actors bridging the gap. While similar predictions could be made based on purely individual-level variables, such as social identity, a relations-based network approach could provide additional research traction to investigators who are interested in a holistic view of emotions in their natural, social habitat.

Fortunately, network-oriented emotion research is gaining a foothold. In terms of theory, emotion has already been rooted in dyadic exchanges with network-wide effects (e.g., Lawler, 2001; Lawler, Thye, & Yoon, Chapter 13, this volume), and framed as a social infection transmitted through the conduits of relations (Hill, Rand, Nowak, & Christakis, 2010). Empirical evidence is also accumulating in favor of networked emotion. For example, people connected to many happy people and those who are central in the network are more likely to become happy in the future (Fowler & Christakis, 2008). Conversely, Schaefer, Kornienko, and Fox (2011) found that depressed adolescents withdrew from friendships over time, leaving them in network positions that were less conducive to new friendships. Since these marginalized network positions reduced opportunities to socialize with non-depressed peers, the arrangement aided depressed adolescents to find each other instead.

The challenge for future research is to further liberate emotions from their intrapersonal confines and examine how they operate as functions of relations in a broader network. One rudimentary step toward this goal would be to collect data about discrete other-oriented emotions that actors feel towards each other. For example, a researcher could construct two longitudinal networks, one consisting of the relations based on anger felt between the actors, and another based on friendship relations. RSiena software (Ripley et al., 2012) is capable of analyzing how relations in one network influence relations in another. With RSiena, it would be possible to empirically establish, for example, the veracity of the dictum “the enemy of my enemy is my friend,” (i.e., whether actors who agree on their target of anger are more likely to forge friendships as a consequence).

Networks of people and groups

In our terminology, a *group* in the social-identity sense of the word is a cognitive category to identify with, whereas a *cluster* is a specific set of actors in which one belongs by the virtue of one’s relations. As briefly mentioned earlier, emotions from the relation-alignment perspective are always about some socially relevant object. In terms of the networks discussed so far, this object has been a real-world person.

Parkinson and colleagues (2005) apply the distinction between emotion’s subject (i.e., who is experiencing the emotion) and object (i.e., at whom or at what the emotion is directed) to emotions occurring in social contexts, yielding at least five types of emotions including group and interpersonal ones (Iyer & Leach, 2008). Intergroup emotions are experienced by individuals who self-categorize as members of an ingroup and have an outgroup as the object of their emotion. Personal emotions directed at outgroups deal with situations in which individuals perceive others as outgroup members without including themselves in an ingroup. The same applies to personal emotions directed at in-groups, but in this case, individuals experience emotions about their own ingroup

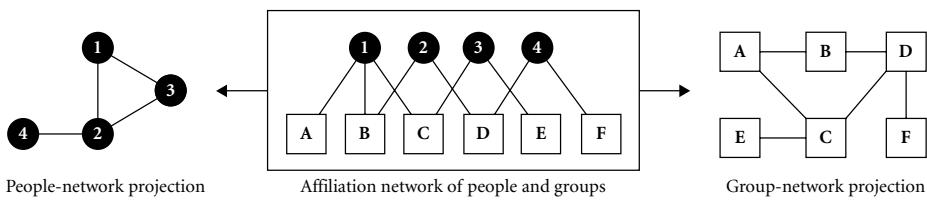


Fig. 9.3 Two projections of a two-mode affiliation network.

without identifying with it. Group-based emotions directed at ingroups are similar, except that the subject of the emotion identifies with the ingroup. Finally, group-based emotions directed at individuals consider situations in which an individual who identifies with the group experiences an emotion about an individual, such as British citizens mourning the death of Princess Diana.

Two-mode networks have the potential to provide a single framework to analyze how people relate both to other people in their immediate social environment and to ideas that they endorse or identify with (whether they are groups, ideas, events, or other types of objects). When a two-mode network represents groups and members (i.e., each relation represents an actor's affiliation to a group), they are called affiliation networks (see Fig. 9.3). To construct a two-mode network, people report groups to which they belong (the middle panel of Fig. 9.3). From these data, it is possible to reconstruct networks of people based on their shared group endorsements. Likewise, the two-mode data can be also projected into a one-mode network of groups in which the groups are connected through shared members. Although affiliation networks are not a new methodology to investigate how individuals and groups interpenetrate each other (Breiger, 1974), more advanced methods for two-mode networks are still developing (Latapy, Magnien, & Vecchio, 2008) and waiting for application to collective emotion. For example, collecting data about people's actual interpersonal relations, their identifications with various groups, and the emotions they feel towards people and groups would allow empirical comparison of emotions based on identification and relational patterns within one analytic framework.

Conclusion

In this chapter, we have argued that the interpersonal function of emotion centers on the relations that people have with each other. As an emergent property of interlocking interpersonal relations, the natural habitat of emotion is the social network. As a theoretical framework and a methodological toolkit, the social network approach also focuses on relations, which makes it a promising avenue to study relational emotions. We posit that emotions are oriented to their interpersonal effects and function to align relations by bottom-up implicit, or top-down explicit, processes. By looking at anger and contempt, we illustrated the mutual attunement involved in these social emotions and their relational implications.

By tracing the processes involved in emotion on three levels of analysis, we showed that emotion can configure the pattern of relations in structures beyond interpersonal, dyadic encounters. Since emotion at the group level has typically been approached from a social identity or self-categorization perspective, we point out theoretical and practical differences between groups as cognitive categories and social networks as empirically observed relations among specific social actors.

Although the social identity and social network approaches may seem very different at first, they do not need to be at odds with each other. Instead, they can supplement each other without the need to overhaul either in a fundamental way. Since social identity/self-categorization theorists consider self-categorization as inherently variable and context-dependent, and studies have highlighted the role of networks in enacting, triggering, and defining identities (Deaux & Martin, 2003), dynamically evolving social networks can serve as the variable social context behind these shifting self-categorizations. Especially two-mode networks should provide new opportunities for integrative research in group emotion.

We suggest that SNA can supplement the social identity approach by providing theoretical and methodological help that permits the comparison of clusters of people as emergent network structures and groups of people as cognitive categories. Furthermore, “structural fit” (i.e., actors’ position in a network in relation to empirically defined clusters and identity-based groups) might affect how actors in a network experience emotions and categorize themselves. In closing, we encourage researchers who are interested in groups, emotions, and relations to consider incorporating ideas and tools from social network analysis to their practice.

Acknowledgments

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Chapter 10

Social appraisal as a cause of collective emotions

Martin Bruder,^a Agneta Fischer,^b and Antony S. R. Manstead^c

^aUniversity of Konstanz, ^bUniversity of Amsterdam, and ^cCardiff University

Virgin Atlantic is investigating claims that an air stewardess repeatedly shouted “we’re going to crash” during a flight hit by turbulence. Passengers reportedly began to panic and cry as the shouts rang out when the London to Las Vegas flight suddenly began “juddering.” Douglas Marshall, [...] a 33-year old BBC journalist from Birmingham, was also on the flight and heard screams but did not know who they came from. However, he confirmed that the flight crew were “very scared” when the plane hit trouble. “If the flight crew are scared then you know something is seriously wrong. [...] It was very, very scary. Most people on that plane thought they were going to die.”

(BBC News, 2006a)

Although turbulence while flying can be highly unpleasant, it is usually not newsworthy. The case in the epigraph is different because it shows that one person’s expressed emotions can exacerbate the situation. They can affect the emotional experiences of a group of people, leading to collective emotions in response to the situation.¹

Here, we are concerned with the intraindividual and interpersonal processes that underlie the relation between individual emotions and collective emotion (Parkinson, 2011). We focus on immediate interactions within a specific situation; that is, we describe processes that play out in direct personal encounters and that involve emotions that are about the specific circumstances in which those involved find themselves. However, the processes we describe are also potentially relevant to other modes of communication that can elicit collective emotion (in particular, mass media communication).

¹ Although the terms are sometimes used interchangeably, we wish to make a distinction between “collective” or “shared” and “group-based” emotions. Collective emotions are emotions expressed in groups and are therefore always shared, at least to some degree. Group-based emotions are not necessarily collective, because the group-based nature of the emotions refers to the fact that concerns about one’s group-based self have evoked the emotional reaction, as for example when one’s favorite football team loses an important game. Such group-based emotions can be experienced or expressed in isolation, as when one watches a televised match on one’s own. In other words, “group-based emotion” refers specifically to the basis for the emotion, whereas “collective emotion” refers to the shared nature of the experience and expression of emotion.

We describe two theoretical frameworks that detail processes linking individual emotion to collective emotion: *primitive emotional contagion theory* (Hatfield, Cacioppo, & Rapson, 1992, 1994; Hatfield, Carpenter, & Rapson, Chapter 8, this volume) and *social appraisal theory* (Manstead & Fischer, 2001). We argue that the conditions under which people are subject to primitive emotional contagion differ from those in which they engage in social appraisal processes. We will outline the conditions that we believe to be critical for the operation of the two processes and thereby seek to integrate these two perspectives.

Primitive emotional contagion and social appraisal theory

Fig. 10.1 shows the interpersonal and intraindividual processes involved in primitive emotional contagion and social appraisal. For illustrative purposes, let us return to the events described in the quotation at the start of this chapter. The “situation” here is the fact that the airplane starts to shake rather violently. The “sender” is the flight attendant who (allegedly) panicked. The “perceiver” is any of the passengers. The figure illustrates how primitive emotional contagion and social appraisal conceptualize the influence of the sender’s emotion on the perceiver’s emotion, with respect to: (1) how they appraise a situation (e.g., whether they perceive the shaking of the plane as threatening), (2) how they feel about it (e.g., whether they experience fear), and (3) what emotions they express in response to it (e.g., whether they scream). Both perspectives allow for effects on all three components of the emotion syndrome (i.e., cognitive appraisals, feelings, and emotional expressions). Where they differ is with respect to which of the components is directly subject to *interpersonal* processes and which other components are affected in subsequent *intrapersonal* processes.

Primitive emotional contagion theory proposes what we label a *feature-driven* link between one person’s emotional expressions and another person’s felt emotions. The context in which an expression is shown does not play an immediate role in this account. The proposed convergence process operates as follows: When a sender expresses an emotion, the perceiver automatically mimics the expression shown by the sender (path 2 in Fig. 10.1; Chartrand & Bargh, 1999; Dimberg, Thunberg, & Elmehed, 2000). Thus, the emotional component that is directly subject to interpersonal influence is *motor expression* (Scherer, 2005). Second, by way of intrapersonal automatic feedback mechanisms (see Manstead, 1988; Matsumoto, 1987, for reviews), the perceiver’s expressions have a congruent effect on his or her feelings (path 3 in Fig. 10.1). For example, a passenger who screams during turbulence should experience more intense fear simply because the facial and vocal fear expression will affect his or her feelings by way of internal feedback processes. Although there is good evidence for the resulting emotional convergence between sender and perceiver in both the short term (Hess & Blairy, 2001; Lundqvist & Dimberg, 1995) and the long term (Anderson, Keltner, & John, 2003), there is only one study showing the two intermediate steps in a mediation model for expressions and feelings of amusement (Bruder, Dosmukhambetova, Nerb, & Manstead, 2012b). Other attempts to observe

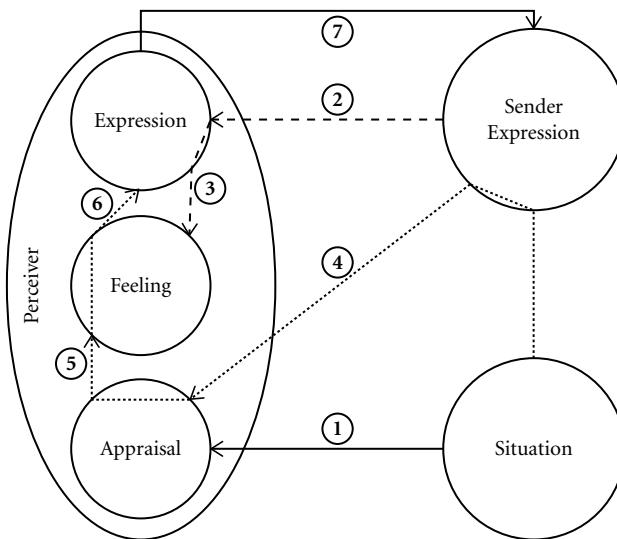


Fig. 10.1 Two individuals (sender and perceiver) simultaneously face a potentially emotion-eliciting situation. The perceiver engages in individual cognitive appraisal of the situation (path 1); in addition, the sender's expressions affect the perceiver via two paths: (a) a *primitive emotional contagion path*, consisting of mimicry (path 2) and subsequent convergence in experienced feelings (path 3); and (b) a *social appraisal path*, consisting of an integration of the sender's appraisals into the perceiver's appraisals (path 4), with subsequent effects on feelings (path 5) and expressions (path 6). The expressions of the perceiver allow for an iterative and bi-directional process to emerge (path 7). For the sake of simplicity, the sender's appraisal and feeling are not depicted.

the full mediational sequence were unsuccessful (Blairy, Herrera, & Hess, 1999; Hess & Blairy, 2001; Lishner, Cooter, & Zald, 2008; van der Schalk et al., 2011). Thus, although there is evidence that (1) people automatically mimic others' emotional expressions (but see Hess & Fischer, 2012), and (2) that they converge in their feelings, it is unclear whether the former is a necessary or even sufficient condition for the latter.

Embodied simulation processes that are not based on the perceiver's overt expressions allow for a more direct link between senders' expressions and perceivers' feelings (e.g., Neumann & Strack, 2000; Niedenthal, Barsalou, Winkielman, Krauth-Gruber, & Ric, 2005). Here embodied simulation takes the place of overt mimicry (Niedenthal, Mermilliod, Maringer, & Hess, 2010). Such accounts hold that the cortical areas involved in motor expression play a critical role in representing others' emotional expressions.

Regardless of whether interpersonal influence processes directly affect perceivers' emotional expressions through mimicry or are better conceptualized as affecting embodied representations in the cortex, neither account involves information about the situation that led the sender to express emotions in the first place. Although some accounts of embodied simulation do allow for the integration of conceptual knowledge and expectations (Niedenthal et al., 2010), such influences appear to depend on cognitive appraisals.

To integrate conceptual knowledge and expectations one needs to understand, at least at a basic level, the nature of the situation in which others' expressions are produced and the implications of the situation for oneself.

Social appraisal theory offers an account of interpersonal emotional influence in which the integration of others' emotions and the context in which they are expressed plays a central role. Emotional expressions are regarded as meaningful signals that provide important information about the environment; social appraisal theory therefore proposes a *meaning-driven* account of the effect of emotional expressions. Social appraisal is the process of integrating the information gleaned from others' emotional expression into one's own evaluation of a situation. Thereby, the "behaviors, thoughts, or feelings of one or more other persons in the emotional situation are appraised *in addition to* the appraisal of the event per se" (Manstead & Fischer, 2001, p. 222).² The logic of this approach is as follows.

First, emotions emerge on the basis of an individual's evaluation of his or her environment. This is the central proposition of cognitive appraisal theories of emotion (see Clore & Ortony, 2008; Ellsworth & Scherer, 2003, for reviews). Take the turbulence example: those who believe that the plane can easily withstand the turbulence should experience less fear than those who doubt the plane's capacity to do so. Thus the same situation can elicit different degrees of one emotion (or even different emotions, such as thrill or excitement, rather than fear), depending on how individuals interpret their circumstances. Path 1 in Fig. 10.1 represents the perceiver individually appraising a situation.

Second, in many cases, the sender will engage in parallel individual appraisal processes. This is where social appraisal comes into play: path 4 in Fig. 10.1 illustrates the process of the perceiver identifying the sender's appraisals and integrating them with his or her own evaluation of the situation. At the process level, there are two theoretically plausible ways to get to know the appraisals of another person. First, to the extent that emotional expressions relate to felt emotions (Buck, 1994), such expressions may allow perceivers to infer the emotional state of the sender. Then, an intuitive understanding of how emotions relate to appraisals may allow perceivers to attribute specific appraisals to senders. Second, perceivers may be able to directly infer appraisals from expressive features. Consistent with the first of these two pathways, people are indeed able to identify emotional states from others' expressions (Elfenbein & Ambady, 2002) and they have some understanding concerning the association between appraisals and felt emotions (Ellsworth & Scherer, 2003). Consistent with the second proposed pathway, Scherer and Grandjean (2008) found that appraisal labels and emotion labels are similarly readily used

² In addition to this form of social appraisal (which we label *situation-oriented social appraisal*), Manstead and Fischer (2001) also described another social appraisal process (which we label *relationship-oriented social appraisal*). In the latter process, someone experiencing an emotion may anticipate how others will be affected by and react to one's expression of that emotion. This may lead to a modification of the expression in order, for example, to manage the impression given to others, or to adhere to social norms (see Evers, Fischer, Rodriguez Mosquera, & Manstead, 2005).

to judge emotional faces. Rashotte (2002) and Kaiser and Wehrle (2001) demonstrated that elementary (non-emotional) facial movements can carry appraisal information. Furthermore, Bruder and colleagues (2012b) showed that people are able to attribute specific appraisals to amused versus disgusted faces and that—in a mediation framework—changes in these attributed appraisals could explain effects of others' expressions on own appraisals. There is no research to date on either of these pathways that can fully exclude the alternative explanation; thus, at this point, both provide reasonable hypotheses as to how perceivers understand senders' appraisals.

The information about others' appraisals (whichever way it is achieved) then allows perceivers either to re-appraise their own initial evaluation of the situation or to adopt the sender's appraisals without going through the effortful process of appraising the situation for themselves. As Kitayama and Masuda (1995, p. 218) put it, "an individual may experience a certain emotion, not because he or she has managed to arrive at a particular configuration of appraisals through active information processing, but rather because certain appraisals are 'lit up' by communications from others." Once the perceivers' appraisals have changed, cognitive appraisal theories of emotion predict that this will also result in different feelings about the situation (path 5) and different emotional expressions (path 6).

Finally, when perceivers of others' expressions communicate their own socially influenced appraisals via their emotional expressions (see path 7 in Fig. 10.1), this may lead to the emergence of "consensual frames" about how to interpret the situation (Fogel, 1993; Lewis, 1996) and to the generation of collective emotions. This is because, in an iterative and bidirectional process, two individuals facing the same situation can simultaneously be senders of their own and perceivers of each other's emotional expressions. In the turbulence example it is likely that the flight attendant not only expressed emotions herself, but also perceived fearful reactions on the part of passengers, which may have intensified her own response.

Thus there are two possible pathways to emotional convergence. The first, feature-driven account is based on primitive emotional contagion theory and argues that perceivers automatically mimic senders' expressions, and that these mimicked expressions have a congruent impact on the perceivers' feelings. The second, meaning-driven account is based on social appraisal theory and argues that senders' expressions contain information about how to evaluate a situation, and that this influences the way perceivers of these expressions appraise the event and feel about it.

In our view these two pathways generally operate in parallel. However, they differ in one important respect, namely automaticity. The emotional contagion sequence is generally assumed to occur automatically. This is supported by findings concerning both steps involved in emotional contagion. Mimicry of others' facial expressions can occur even when stimulus faces are presented suboptimally (i.e., for such brief time periods that there is no conscious access to the expression; Bailey & Henry, 2009; Dimberg et al., 2000; Rotteveel, De Groot, Geutskens, & Phaf, 2001). These studies also showed that mimicry occurs within few hundreds of milliseconds. Further, people are unable to fully avoid mimicking others' faces even when told to do so (Dimberg, Thunberg, & Grunedal, 2002).

Thus, there is evidence that mimicry is a fast and efficient process that is independent of intentions or goals and difficult to control. The best known study demonstrating automaticity in feedback processes, the second step of primitive emotional contagion, is the experiment by Strack, Martin, and Stepper (1988). They showed that even when manipulating facial expression in an unobtrusive manner (by holding a pen either between one's lips or one's teeth) activation of muscles implicated in smiling led to higher levels of perceived funniness in cartoons.

Social appraisal processes are likely to vary more with respect to automaticity. Perceptions of specific emotions can occur efficiently and outside awareness (Rohr, Degner, & Wentura, 2011) and may lead to specific influences on appraisal (Yang & Tong, 2010); however, social appraisal can also occur at a less automatic, more intentional and conscious level of processing. The passengers in the airplane turbulence situation reported having actively sought out relevant emotional information from others (in particular, the flight crew).

Given that the emotional contagion framework has been detailed elsewhere (see Hatfield et al., Chapter 8, this volume), the remainder of this chapter will focus on developing the social appraisal account. In particular, we will consider the circumstances under which people are most likely to appraise others' emotions; whose emotional expressions they are likely to appraise; and when this is likely to result in a convergent or divergent emotional response.

Social appraisal theory

Social appraisal theory is based on the assumption that emotions serve social functions (Fischer & Manstead, 2008; Keltner & Haidt, 1999). Expressing emotions communicates appraisal information to others, informing them, for example, about threats and opportunities in the environment. The informational value of emotional displays probably played a vital role in their evolution. Tooby and Cosmides (1990, p. 105) contend that "many emotional expressions appear to be designed to be informative," and that what is communicated is "the identity of the evolutionarily recurrent situation being faced, in the estimation of the signaler (e.g., the local world holds a danger)." Expressions therefore provide a "continuous commentary on the underlying meaning of things to companions" (Tooby & Cosmides, 1990, p. 105). Likewise, Spoor and Kelly (2004, p. 401) suggest that emotional expressions communicate "important information about the environment, such as the presence of predators" to other group members. Making use of this "continuous commentary" in one's own evaluation of a situation is precisely what we mean by social appraisal. Recent research has provided further support for this claim, showing, for example, that angry expressions made perceivers think a situation was a less cooperative one than did happy or sad expressions (Van Doorn, Heerdink, & Van Kleef, 2012); that fear expressions led perceivers to take fewer risks (Parkinson, Phiri, & Simons, 2012); and that happy expressions led perceivers to regard others as more attractive (Jones, Debruine, Little, Burriss, & Feinberg, 2007), objects as more likable (Bayliss, Frischen, Fenske, & Tipper, 2007), and films as less morally reprehensible (Bruder et al., 2012b) than disgust

expressions. Apparently monkeys also share the ability to use others' expressions to evaluate unknown objects (Morimoto & Fujita, 2012).

Under what circumstances do we appraise others' emotions?

The uncertainty hypothesis

We propose that both capacity and motivation to process others' emotional expressions play a major role in predicting when people engage in social appraisal. Although social appraisal can occur even when exposure to others' expressions is minimal, there is reason to believe that conditions that allow for full processing of others' expressions and of the context in which they occur will result in social appraisal processes having a more powerful influence.

Motivation to process social emotional information should also be critical. On any regular flight other passengers express a variety of emotions relating to topics such as inflight entertainment or airplane meals. What sets the turbulence example apart is that passengers are highly motivated to understand what is happening. We therefore propose the *uncertainty hypothesis*: People will be especially motivated to attend to others' emotions when they are uncertain about the emotional significance of an event. If people are unable to arrive at a complete pattern of appraisals for a given situation (e.g., due to lack of information), or if they have low confidence in their own appraisals, they will try to gain relevant information from others' expressions or validate their initial appraisals by reference to others' expressions.

The notion that people are motivated to use social information to understand themselves and their environment is an old one. In his social comparison theory, Festinger (1954, p. 117) proposed a "drive to evaluate [one's] opinions and [...] abilities." This expressly includes the evaluation of cognitions about the situation at hand. Building on social comparison theory, Schachter (1959, p. 25), in his two-factor theory of emotion, suggested that individuals in ambiguous situations actively seek out social information to gain "cognitive clarity" about their emotional state. Indeed, a number of studies have found that when faced with threat, people affiliate with others who can provide cognitive clarity and thereby reduce uncertainty (Gump & Kulik, 1997; Kulik, Mahler, & Earnest, 1994; Kulik, Mahler, & Moore, 1996). However, whereas Schachter (1959) emphasized the role of contextual information in disambiguating physiological arousal, we propose that the appraisal information carried by others' expressions has a more basic influence, by disambiguating the situation itself.

Studies of social referencing in infancy further support the idea that social appraisal processes occur in uncertainty-inducing situations. When infants are faced with ambiguous situations such as crossing a visual cliff (Sorce, Emde, Campos, & Klinnert, 1985) or playing with unfamiliar toys (e.g., Klinnert, Emde, Butterfield, & Campos, 1986; Zarbatany & Lamb, 1985), they turn to their caregivers presumably to "seek out emotional information from a significant other person in the environment and to use that information to make sense of an event that is otherwise ambiguous or beyond the person's own intrinsic appraisal capabilities" (Klinnert, Campos, Sorce, Emde, & Svejda, 1983, p. 64).

Finally, a series of studies by van Kleef, De Dreu, and Manstead (2004) showed that people's epistemic motivation, their motivation to develop an accurate understanding of a situation (and thereby overcome uncertainty and gain cognitive clarity), predicts the degree to which their appraisal of an ongoing negotiation and their bidding behavior is influenced by others' expressions of emotion.

In sum, ambiguous or uncertain situations may motivate individuals to pay more attention to others' expressions and process their meaning more thoroughly (see Van Kleef, De Dreu, & Manstead, 2010, for a related account). When faced with such situations, people may therefore be more susceptible to adopting others' appraisals. There is also individual variability in people's motivation to reduce uncertainty (Webster & Kruglanski, 1994).

So how do emotional contagion and social appraisal processes play out in situations in which uncertainty (and, therefore, motivation to attend to and process others' expressions) is low or high? Under conditions of low uncertainty, we propose that there will be some automatic influence of both processes in the direction of interpersonal emotional convergence. Increasing uncertainty will have relatively little impact on the role played by emotional contagion processes. In contrast, social appraisal processes are likely to be much more influential when uncertainty is high, and may result in anything from strong convergence with others to divergence, depending on the social context. Next we detail the conditions under which we would expect convergence or divergence to occur.

Whose emotional expressions do we appraise? The reliability hypothesis

To whom do we attend when we are motivated to seek (more) information about a situation? And when do we converge with or diverge from another person's emotion? The turbulence example provides anecdotal evidence that sender characteristics matter in social appraisal. Paul Gibson, another passenger on the flight, is quoted as saying, "I could hear there was somebody sort of crying or sort of yelping as the plane shook. My first impression was that it was a passenger so I didn't really think anything of it" (BBC News, 2006b).

Two sender characteristics are likely to have been of prime importance in appraising the emotional expressions of other people in the course of phylogeny and ontogeny. The first is whether the person's emotional displays are *trustworthy*. The second is whether the emotional expression is based on a *competent* appraisal of the situation. Together, these two factors determine the reliability of the perceived appraisal information. In proposing the *reliability hypothesis*, we argue that emotional expressions that are appraised as reliable will have a different impact on the perceiver than will expressions regarded as being of doubtful reliability.

Who is considered to be reliable has been studied in the domain of person perception (Cuddy, Fiske, & Glick, 2008; Fiske, Cuddy, & Glick, 2007). This research shows that two dimensions, warmth/trustworthiness and competence, are central to our perceptions of others, and are stable across cultures (Abele, Uchronski, Svitner, & Wojciszke, 2008; Trapnell & Paulhus, 2012). These dimensions have also played a major role in the field of

persuasion. In particular, source credibility is generally believed to be shaped by trustworthiness and expertise (i.e., whether a person is perceived as competent to judge the issue in question; Pornpitakpan, 2004).

How do perceptions of warmth and competence combine to determine the perceived reliability of expressions? Research in person perception suggests that judgments of warmth/trustworthiness are primary (Wojciszke, Bazinska, & Jaworski, 1998). They are more cognitively accessible and determine the valence of interpersonal judgments, whereas the competence evaluation predicts the degree to which a person is judged positively or negatively (cf. Fiske et al., 2007, p. 78). In the context of emotion communication, this leads to the hypothesis that warmth/trustworthiness appraisals should predict the direction of interpersonal influence: senders perceived as warm/trustworthy should elicit convergence in appraisals, whereas senders perceived as low in warmth/trustworthiness should elicit divergence in appraisals. Supporting this assertion, there is evidence that friends more strongly converge in their appraisals, feelings, and emotional expressions than strangers (Anderson et al., 2003; Bruder, Dosmukhambetova, Nerb, & Manstead, 2012a) and that objects are liked more when looked at by trustworthy rather than untrustworthy individuals (King, Rowe, & Leonards, 2011).

Shared group membership may also affect appraisals of warmth/trustworthiness, leading to higher levels of emotional convergence with ingroup as compared to outgroup members. This is consistent with findings by Weisbuch and Ambady (2008) who, in one study had Boston Red Sox or New York Yankees supporters read aloud scenarios describing the happiness or fear experiences of either a Red Sox or a Yankees fan. Ratings of the affective tone of participants' voices showed that those who read the experiences of an ingroup member converged with the emotion described in the scenario, whereas those reading about an outgroup member diverged. Research on convergence in emotional expressions has also found that liked senders are mimicked more than disliked senders (Likowski, Mühlberger, Seibt, Pauli, & Weyers, 2008), and that ingroup members are mimicked more than outgroup members (Bourgeois & Hess, 2008; Mondillon, Niedenthal, Gil, & Drolt-Volet, 2007; van der Schalk et al., 2011).

Perceptions of senders' competence should predict the magnitude of the convergence or divergence. Thus the more competent perceivers consider a sender to be, the more likely it is that they will share his or her appraisals, as inferred from his or her emotional expressions. Group-related variables are likely to influence perceptions of another person's competence. For example, there is evidence that high levels of competence are attributed to individuals who have high ingroup status (Fiske et al., 2007). Furthermore, high- and low-status group members are thought to experience and express different emotions (Conway, Di Fazio, & Mayman, 1999; Tiedens, Ellsworth, & Mesquita, 2000). Because members of low-status groups are generally regarded as less competent, their emotions may also be seen as less reliable, and thus less likely to be informative. Low-status individuals may also be more likely than their high-status counterparts to converge towards another's emotion (Anderson et al., 2003; Sy, Côté, & Saavedra, 2005; but see Spoor & Kelly, 2009).

From interpersonal convergence to collective emotions

A question that remains to be answered is how we can best understand the relation between emotions that are shared between two individuals as a result of emotional contagion and social appraisal processes and emotions that are collectively experienced by a group of people (with individuals categorizing themselves as group members; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). In considering this issue it is worth distinguishing between “bottom-up” processes, through which social influence creates interpersonal convergence and this interpersonal convergence then spreads to others, thereby creating shared, or collective emotions; and “top-down” processes, exemplified by group norms that have an impact on the experience and expression of emotion by group members and thereby result in emotional convergence. In these terms, emotional contagion and social appraisal processes are clearly “bottom-up,” rather than “top-down.”

As the introductory example illustrates, under some circumstances bottom-up processes of interpersonal convergence can be sufficient to create collective emotion. Despite the fact that the passengers are unlikely to have seen themselves as a group before the turbulence, the fact that they shared the experience of an emotional event is likely to have created a sense of being in a common group. Indeed, recent research has shown that if others share one’s emotional reactions to an event, one is more likely to regard oneself as sharing group membership with them (Livingstone, Spears, Manstead, Bruder, & Shepherd, 2011). At least in some situations, then, the existence of a group may not precede the shared experience of emotion; instead, the shared emotional experience may turn an aggregation of individuals into a social group.

However, there are also likely to be circumstances in which top-down influences are centrally involved in the generation of collective emotions. This is especially likely to be the case in established groups that share norms and values. There is ample evidence of emotional convergence in such groups. For example, in a team sports context, players’ individual moods were significantly predicted by their teammates’ average mood (Totterdell, 2000), and workgroups converge in their emotions (e.g., Barsade, 2002; Totterdell, Kellett, Teuchmann, & Briner, 1998). However, the top-down influences that create such collective emotions are not yet well understood. It may be that categorizing oneself as a group member leads people to adopt group norms related to emotional experience and expression, thereby “creating greater uniformity of emotion” within the group (Parkinson, Fischer, & Manstead, 2005, p. 90). This is not to say, however, that emotional contagion and social appraisal processes are unimportant in established groups. As we saw earlier, shared group membership is likely to enhance mimicry and increase interpersonal trust, so bottom-up processes are likely to be especially potent within established groups.

Conclusion

We have summarized two types of interpersonal process that help to explain how an individual’s experience of emotion can turn into a collective emotion shared by others. In

particular, we focused on the social appraisal account of interpersonal emotional influence and proposed some ways in which this account can be integrated with emotional contagion theory. We believe that it is possible and fruitful to integrate these accounts into a single theoretical framework that would be better able to explain the occurrence of collective emotions than either account on its own. At the same time, we recognize that the complexities of human social interaction are such that the emergence of collective emotions involves more processes than we have been able to address here. For example, it is clear that emotional expressions should not always be taken at face value, in the sense that they can be deceptive (Andrade & Ho, 2009), and that they are not always seen for what they are, because perceivers can project their own emotional states onto the sender (Niedenthal et al., 2000; Schmid & Mast, 2010). The turbulence example illustrates this latter point: A probe into the flight attendant's behavior during the turbulence resulted in "no evidence" that she "screamed and panicked" when the plane hit the turbulence (BBC News, 2006b). In some cases, then, collective emotion may literally emerge out of "thin air."

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Chapter 11

Emotions and the social niche

Joel Krueger

University of Exeter

Recent influential theories of emotion in philosophy and cognitive science (e.g., appraisal theories, neo-Jamesian theories, etc.) tend to share a common assumption: emotions consist of inner states or processes confined to the biological borders of the agent. Whatever their ontology (e.g., evaluative judgments, physiological states of bodily arousal, etc.), emotions are private states individuated by their neurobiology, cognitive content, behavioral expression or phenomenal character (e.g., Damasio, 1999; Laird, 2007; Nussbaum, 2001; Prinz, 2004; Russell, 2009; Schwarz & Clore, 1988).¹

While helpful in characterizing some aspects of emotions, these individualistic approaches nevertheless often fail to account for the extent to which emotions are mediated by the agent's *social niche*—that is, the extent to which emotions emerge from within, and area at times partially constituted by, the dynamics of an agent's ongoing interaction with evolving social contexts. This chapter considers emotions not as private entities but rather as social phenomena. I argue that emotions might be productively thought of as distributed processes of social niche construction: forms of engagement whereby agents manipulate their social context to establish, modify, and negotiate relationships, communicate intentions, and attune themselves to the mental life of others. I primarily focus on emotions as they emerge from within the dynamics of face-to-face engagement and consider how material and ideational factors of our social niches support the emergence of emotions on both short-term and long-term time scales. In doing so, I draw upon theoretical resources of distributed approaches to cognition as well as several different strands of empirical work, including research in developmental psychology.

The notion of the (cognitive) niche

Niche construction occurs when an organism's choices, activities, and metabolic processes actively create and/or modify its environment (Laland, Odling-Smee, & Feldman, 2000).

¹ There are, of course, some notable exceptions, such as Averill (1985), Parkinson (1996), and Parkinson, Fischer, and Manstead (2005), all of whom emphasize the socio-relational character of emotions. However, by appealing to work on distributed cognition in philosophy of mind and cognitive science—as well as a focused consideration of empirical work in developmental psychology—I hope to bring additional resources to this discussion that aren't explicitly dealt with in the work of these authors.

Over time, these choices and modifications introduce new selection pressures that, over the course of even more time, spur the development of novel evolutionary responses. For example, the presence of spider webs over the course of many generations has modified the spider's selective niche by allowing for enhanced web-based forms of crypsis (Laland et al., 2000, p. 133). Bluefin tuna swim faster than their anatomy and musculature will allow by exploiting local currents, merging with these currents and using their fins to create additional vortices to propel themselves forward (Triantafyllou & Triantafyllou, 1995). Beavers famously engineer their environments in sophisticated ways to respond to seasonal and predatory challenges. These modifications alter the selective landscape and scaffold the biological evolution of their progeny. Many of the skills and sensitivities of current-day organisms evolved from the niche constructing "cultural work" of their ancestors.

Similar effects can be observed in human niche construction. We fill up our niches with props, artifacts, and technologies that loop back onto us in ways that, over both short- and long-term time scales, transform and scaffold processes of individual and cultural learning. These artifacts comprise the material edifice of our cultural ecology: language, symbols, rituals, cultural norms and practices, tools, weapons, shelter, clothing, etc. From a cognitive niche construction perspective, these artifacts are tools for thought that transform the problem space of various target domains in ways that profoundly assist our thinking and reasoning (Clark, 2005; see also Dennett, 1996; Gregory, 1981).

The notion of cognitive niche construction is at the heart of recent distributed approaches to cognition and related discussions of the extended mind thesis (Clark, 2008; Clark & Chalmers, 1998; Hutchins, 1995; Menary, 2010; Rowlands, 2010). These approaches emphasize the manner in which features of the cognitive agent's niche constrain—and more radically, at times *constitute*—features of their cognitive processes. This latter claim flows from a strong emphasis on the active nature of cognition. Cognition is seen to partially consist in the active manipulation of the informational structure of the local environment (i.e., ongoing cycles of niche construction), which generates dynamic feedback and feed-forward processes cutting across brain–body–world boundaries.

Consider multiplying two three-digit numbers (Wilson & Clark, 2009). According to the traditional computationalist view, multiplication is a three-step process that occurs entirely inside the head. First, visual or auditory input from the external world (the numbers seen or heard) is encoded into internal symbols; second, these symbols are internally manipulated according to mathematical rules; third, these manipulations lead to behavior explainable on the basis of output from step two. The individual's internal resources are sufficient to accomplish this task.

However, contrast this cognitivist model with a niche construction approach. According to the latter, multiplication is a distributed process spanning the entire brain–body–world system. This is evident when we consider how multiplication involves the active manipulation of both internal *and* external symbols: things like written marks on a piece of paper, blackboard, or symbols on a computer screen. Moreover, working through a multiplication problem consists of dynamic perception-action cycles that drive the computational

process along: the physical act of writing on paper or a blackboard; scanning back and forth from blackboard to paper and back again; tapping a keyboard to enter data into a computer or calculator; consulting a fellow problem solver for assistance, etc. Manipulative actions, as well as the tools and environmental resources they make use of, are thus part of the larger (distributed) computational system.

A distributed approach to cognition in this way emphasizes the extent to which the material structures of our cognitive niches drive and enhance our thinking and reasoning. But humans do more than think and reason. We feel and experience. And we do so in context—that is, within social niches we inherit and create. The social world—the shared, affectively-charged context of interpersonal engagement—is itself a fertile arena of ongoing niche construction. Yet this fact has not been adequately addressed by proponents of the niche construction approach to human cognition. The stories we hear mainly involve human problem-solvers interacting with non-human props and artifacts; rarely are *other people* part of this story.² Even less frequently are emotions or feelings mentioned. Yet other people, as well as the emotions they express and elicit, are persistent parts of our social niches. Having introduced the notion of niche construction, I turn now to a consideration of this idea in the context of emotions and social interaction.

The notion of the (emotional) niche

Within the philosophy of mind and cognitive science, the predominant perspective on emotions has been the intraindividual perspective (Miller & Leary, 1992). Emotion research has largely focused on nonsocial situations such as emotional responses to physical threats (see Boiger & Mesquita, 2012, for an overview). The environment is thus of secondary importance for understanding the nature and development of emotions. While the environment may provide stimuli that trigger different states of bodily arousal identified by the brain as affect (Damasio, Everitt, & Bishop, 1996; Panksepp, 2004; Prinz, 2004), or, alternatively, offer information useful in appraising salient aspects of a particular situation (Arnold, 1970; Scherer, 1999; Solomon, 1976), the main effort has been to identify the internal mechanisms responsible for generating emotion.

This individualistic approach to emotions is potentially problematic. By focusing exclusively on intrapsychic or physiological features of emotions—and emphasizing their unconscious, automatic, and involuntary aspects—an individualistic orientation can overlook the extent to which emotions are socially mediated over both short- and long-term time scales. We are thus left with an abstracted part of the larger “concrete whole” of emotional experience (Dewey, 1895). However, by instead modeling emotions as processes that both emerge from within and are sustained by collective activities of social niche construction, we can more clearly come to see how social and emotional processes intertwine in real time.

² Hutchins (2010) is an exception.

With these thoughts in mind, the discussion that follows has two main aims. First, building off the discussion of cognitive niche construction, I want to argue that emotions are from the beginning of life essentially scaffolded (both synchronically and diachronically) by features of the surrounding social milieu. Second, along the way I also want to indicate—without filling in all of the details—how emotions, as processes of social niche construction, are shaped by both material and cultural features of the environment. In this sense are emotions thoroughly *situated*, dependent upon particular features of the niche in which they unfold, and which they, in part, help structure (cf. Griffiths & Scarantino, 2009).

Synchronic scaffolding and emotional performance in early infancy

Parkinson, Fischer, and Manstead (2005) distinguish two features of the social niche that directly shape the experience and expression of emotion. They term these features “ideational” and “material” factors, respectively (Parkinson et al., 2005, pp. 220–234; see also Markus & Kitayama, 1994). The former are mental structures like values, norms, and rules informing display rules and emotion scripts (“Big boys don’t cry!”; the expectation that one expresses joy at a wedding, grief at a funeral, etc.). The latter are physical structures—resources, settings, and tools—that make up the context in which emotions occur as well as the various technologies that support their emergence. But this distinction is not absolute. Ideational factors are embodied within the material structures of our cultural ecology. For example, the confession booth in the Catholic Church is an emotional technology in which the ideological co-mingles with the material. Its physical structure private setting places practical constraints on emotional conduct therein: minimizing embarrassment, encouraging confession, and creating a space of intimacy in which sins are freely laid bare. It embodies a host of institutional practices and values that are central to the experience and expression of the Catholic faith, including its affective dimensions.

Of course, the confession booth is not something we inhabit until we reach maturity (if we inhabit it at all). But ideational and material factors of the social niche converge within another kind of emotional technology that we all do have access to from the moment we are born: other people. The collaborative dynamics of our face-to-face interactions with other people, I suggest, are examples of social niche construction. These interactions provide real-time scaffolding supporting the emergence and performance of many basic emotions from the very beginning of life.

It was long assumed that infants are born with little awareness of the intersubjective world (cf. Mahler et al., 1975; Piaget, 1954). However, in light of different streams of empirical work in developmental psychology, that assumption has now largely been abandoned. Infants appear to be born with a perceptual and affective sensitivity to the facial expressions, gestures, smells, and sounds of other people. This “primary intersubjectivity” (Trevarthen, 1979) consists of a range of bodily and perceptual skills that animate rudimentary forms of social interaction—including attunement to the emotions of others—prior to the development of theory of mind capacities.

For example, newborns can imitate others' facial expressions (Meltzoff & Moore, 1977), including emotionally relevant facial expressions (Haviland & Lelwica, 1987; Kugiumutzakis, 1999).³ Young infants are also perceptually attuned to the temporal correspondence of facial movements to their own activities; they become highly distressed when previously expressive partners abruptly assume a "still face" during a face-to-face interaction, or when the rhythm of an exchange is noticeably disrupted (Murray & Trevarthen, 1985; Tronick et al., 1978). Infants are also perceptually sensitive to other people in different ways. Newborns show an olfactory preference for maternal amniotic fluid as opposed to that of a stranger (Marlier, Schaal, & Soussignan, 1998). They are highly attuned and responsive to the melodic parameters of the human voice (Krueger, 2013; Papousek, 1992); from birth, infants track the intonation of adult frequencies (Lieberman, 1967), and even at 3 days they co-vocalize with caregivers significantly above chance (Rosenthal, 1982). From the moment they are born, neonates vocalize and gesture in ways suggesting that they are sensitively attuned to others' vocalizations and gestures (Gopnik & Meltzoff, 1997, p. 131).

Of course, social interaction is a relational phenomenon (see van der Löwe & Parkinson, Chapter 9, this volume). And while young infants possess the basic skills needed to participate in the social world, it is caregivers who provide the scaffolding supporting the emergence of their emotions and rudimentary social cognitive capacities. To see how this is so, consider how caregivers supply two crucial social cognitive capacities infants initially lack: attentional control and emotional self-regulation. The organizational qualities of caregiver's interactions with infants serves as the social niche in which these capacities are nurtured and develop.

Consider first attentional control (see Brosch, Chapter 6, this volume). From birth, infants can (within limits, of course) scan features of the environment well enough to see faces—or at least aspects of faces—and imitate them. They even recognize their emotional significance (Kugiumutzakis et al., 2005). Infants are thus born with the basic attentional skills needed to pick up on and respond to the auditory-visual-tactile "packages" that caregivers send their way (Beebe & Gerstaman, 1984). But unlike adult attention, early infant attention is primarily *exogenous* (i.e., bottom-up and involuntary) (Gopnik, 2009, pp. 106–123; Posner & Rothbart, 1998). They have little inner control over their own attention; rather, it is largely determined by things and events in the infant's immediate environment. So, while the quality of infant attention—including its intersubjective quality—is surprisingly rich, its inhibitory component is comparatively underdeveloped.⁴

³ But see Ray and Heyes (2011) for a skeptical interpretation of the imitation literature.

⁴ This developmental trajectory appears to be reflected at the neurochemical level. Cholinergic transmitters, which heighten attention, are abundant at birth; inhibitory transmitters, which suppress attention, develop later. Parietal and sensory systems involved in exogenous attention are online early, developmentally speaking, while top-down frontal regions controlling endogenous attention only mature later (Gopnik, 2008).

This lack of inner control of attention means not only that infants lack an ability to control what they see and experience; they also lack a basic mechanism for emotional self-regulation (Posner & Rothbart, 1998). Their endogenous states, including affect and emotion, are exogenously determined—in many cases, by the physical interventions of caregivers. Via gesture, facial expression, touch, and speech, caregivers shape the character of these interactions in a way that is vital for the development of the infant's social cognitive development (Tronick, 2005; Rochat et al., 1999). More precisely, caregiver's bodily expressiveness is the material scaffolding shaping that particular interactive niche.

How this occurs becomes clearer when we consider the emergence of positive affect in early infancy. Babies are good at expressing negative affect. But they need assistance to experience and express *positive* affect. Since they lack inner control of attention and the capacity for emotional self-regulation, their experience and expression of positive affect "require[s] the participation of an attuned adult who can both construct and coregulate the positive affect in a moment-by-moment process" (Feldman, 2007, p. 609). In other words, the origin of positive affect in early infant experience is *inherently dyadic*. It is the caregiver who modulates and regulates the "vitality contours" (Stern, 1999) giving an interactive sequence its particular affective character. Caregivers continually optimize the stimulus value of their auditory-visual-tactile packages, intentionally crafted to keep the infant in an "optimal zone for play" between over-stimulation and under-arousal (Stern, 2010, p. 108). In short, as a persistent material feature of the infant's social niche, they serve as an external constraint on the emergence and development of the infant's attention and emotions.

For example, consider a fussy child. Her mother wants to elevate her mood. There are a number of strategies available, each of which is rooted in different bodily expressive techniques. Merely holding and gently rocking a distressed infant to help her achieve a quiet state is one simple form of external affect regulation. But a slightly more complex dynamic might accomplish the same thing. Instead of matching the infant's negative affect, the parent might lean closer and vocally express sympathetic emotions (e.g., uttering "Ooh, is someone unhappy?" in an exaggerated sing-song manner whilst frowning). However, the caregiver will quickly elevate the shared affect by smiling broadly and adopting a jollier mode of expression (e.g., "C'mon, then! No need to be sad!" expressed with a rising inflection), followed up with sequences of smiles, raised eyebrows, touches, and positive expressions (cf. Stern, 1995, pp. 421–422). The caregiver uses various attention-sculpting bodily techniques to draw positive affect out of the fussy infant.

There are cultural variations on the sort of techniques mothers will employ; material and ideational factors are simultaneously embodied within different regulatory strategies. For example, within Zulu culture children are expected to less socially prominent than in European or North American culture. To regulate a fussy infant's expression of negative affect, a Zulu mother will sharply utter "thula!" (quiet) or "njega!" (no) while leaning forward, taking up the infant's visual field with her face and palms, and continue to offer terse vocalizations to cut off any protests from the infant (Spurrett & Cowley, 2010, p. 306). This crowding of the infant's bodily space focuses the infant's attention by removing competing perceptual distractions. And the mother's expressive coordination with the infant—restricting approval

signs such as smiles or comforting vocalizations until the infant has quieted—scaffolds the infant's transition into a more placid affective state. The shared space between infant and caregiver is thus exploited by both as a social niche that regulates the child's attention and emotion.⁵

The salient point is that the expressive body of the caregiver—along with the dynamics of the infant–caregiver interaction—scaffold and constrain the infant's social experience, including their attention and experience of positive emotions. The gestures, behavior, smells, and utterances of the caregiver are material aspects of the infant's social niche; although as the case of Zulu mothers shows, they embody culturally specific ideational factors, too. These material aspects shape both what the infant feels and how they come to feel it. The caregiver's physical interventions enable the infant to access a class of experiences (positive affect) and realize a form of cognitive competence (endogenous regulation of attention) that exceed her current level of development, much the way that certain technologies within our cognitive niche enable a computational prowess not possible by the unaided brain alone.

Like our interactions with the cognitive niche, this scaffolding process within the social niche is not a one-way linear process leading from caregiver to infant. Rather, the interplay between the two is cyclical, dynamic, and mutually-responsive. It unfolds within the “we-space” coupling infant and caregiver (Krueger, 2011), the shared space of what Merleau-Ponty suggestively terms “intcorporeality” (Merleau-Ponty, 1968, p. 143). Within this shared bodily space, the infant plays an active role in shaping the affective contour of the exchange. The mother adapts and refines her own responses to the infant's ongoing expressions. Intcorporeality is thus constituted via bodily techniques available to both newborn and caregivers: various “actions, gestures, modes of comportment, etc. that manifest the intentions, feelings, and more generally subjective ‘states’ of social agents” (Crossley, 1995, p. 146). Given the public character of these techniques, intcorporeality can be seen as grounding the social-material niche in which the infant's emotions and rudimentary social understanding is first animated and nurtured (Hobson, 2002). This dynamic *collaborative* perspective on the emergence of emotions in early infancy is not available to a staunchly *intraindividual* approach.

But there is another dimension to the social niche that warrants our attention. As Merleau-Ponty notes elsewhere, intcorporeality presupposes a more basic “anonymity”: a tacit background of meanings, norms, conventions, and common practices that render both the context and content of our embodied interactions intelligible (Merleau-Ponty, 2002, pp. 404–405). While the expressive bodily techniques of caregivers are immediate material aspects of the social niche, they also, as we have seen, embody ideational factors

⁵ Music, including both sung lullabies as well as the quasi-musical character of infant-directed speech (i.e., “motherese”), performs a similar scaffolding function in regulating attention and emotion and entraining rudimentary social cognitive capacities. Cultural variations also reflect the further intermingling of material and ideational factors (see, e.g., DeNora, 2000; Krueger, 2013; Malloch & Trevarthen, 2009; Trehub & Trainor, 1998).

that constrain the format and dynamic of these techniques. By repeatedly bodily engaging with caregivers, infants are progressively entrained into normative (i.e., ideational) practices that form the basis of our common social life. The expressive materiality of others thus not only scaffolds moment-to-moment (*synchronous*) emotional *performance*; it also scaffolds long-term (*diachronic*) socio-cultural emotional *development*. This is the idea I consider next.

Diachronicity and ideational factors in emotional development

In the previous section (“*Synchronous scaffolding and emotional performance in early infancy*”), I appealed to evidence from developmental psychology to argue that attention and emotion in early infancy are synchronically scaffolded by ongoing interactions with the social niche—specifically, the physical interventions of caregivers. This characterization supports the idea that, from birth, emotions are not exclusively internal states. Rather, they are transactions between self and others, supported and shaped in a moment-to-moment sense by the particular social niche in which this transaction unfolds.

As we will see shortly, a characterization of emotions that highlights their transactional character allows us to see more clearly how ideational factors enter into and shape ongoing emotional experience, particularly the complex emotional experiences characteristic of adulthood. But a transactional approach also serves as a helpful corrective to thinking about emotions as inner mental states, which can be misleading. For, not only can this sort of mental state talk potentially over-intellectualize emotions (i.e., both by underplaying their felt bodily character as well as over-emphasizing the extent to which they consist of processes exclusively located in the head). Additionally, it can lead to a static “snapshot” conception of emotions, according to which emotions are decomposed into sequential chains of discrete physiological episodes (i.e., inner states) that intervene between environmental stimulus and behavioral response. This is a misleading way of thinking about emotions. More often than not, emotions—particularly in adulthood—tend to be compositionally complex, evolve over time, emerge from reciprocal causal *loops* as opposed to linear causal *chains*, and are often tightly interwoven with one another.⁶

Imagine that I am seething with anger. I suspect that my wife has been unfaithful. My imagination swells with images of how I suspect this betrayal has unfolded. Each new image intensifies my anger. But things aren’t quite that simple. For anger is rarely a free-standing state. Along with my anger, I actually experience an interrelated constellation of various other emotions: *jealousy* in the face of her betrayal; *shame* at my

⁶ The recursive and circular nature of emotional processing has been ably characterized by advocates of a process theory of emotions, including Lewis (2005), Robinson (2005), and Scherer (2001). I am broadly in agreement with these views. Nevertheless, my interest here is more phenomenological than these authors.

naïve trust; *humiliation* at the thought of others finding out; *sadness* at the dissolution of a long-term commitment; *disgust* at the thought of her being physically intimate with another, etc. Within the throes of this episode, any of these emotions may at any moment take precedence over the others without thereby cancelling out their phenomenal presence. The particular phenomenology of my anger in this context is thus conditioned by the simultaneous upwelling of a flurry of other emotions. Later, however, after some reflection and cooling off, a weary sadness may assume phenomenological prominence without completely effacing the anger that had previously burned so intensely. And when discussing the situation even later with friends, my shame and humiliation may come to the fore, preserving the anger but modifying its felt texture by diminishing its intensity and introducing a more prominent shame-dimension.

Unlike emotions in early infancy, emotions in adulthood are in this way structurally complex and very often long-term processes, “lasting even for years or a lifetime and occupying several levels or dimensions of consciousness” (Solomon, 2006, p. 303).⁷ As the above example affirms, however—along with the developmental evidence discussed previously—emotions emerge and fluctuate as we negotiate various social contexts. More tellingly, they are often modulated *by* these social contexts *as we negotiate them*. Again, many emotions are interactively constituted in the sense that they are deeply interwoven with those comprising our social niche (Downing, 2000).

There are several lessons here. First, this example reaffirms the dynamic and transactional character of emotional experience—the idea, once more, that emotions are both *structurally complex* (i.e., interwoven with other emotions, and comprised of different dimensions like physiological arousal, cognitive judgments, intentionality, felt affect, etc.) as well as *essentially temporal* (i.e., they evolve and develop over time).⁸ When sharing my anger over my wife’s infidelity with friends, my anger solicits an angry response from them, which heightens my own anger, which in turn further animates theirs, etc. Even in adulthood, these dynamic processes establish the temporal structure and interpersonal context—the material factors of the social niche—circumscribing our emotional transactions. Many emotions thus emerge quite literally *between* interactants, within this ongoing mutual adjustment of action, emotion, and intention (Fogel & Garvey, 2007). But how do ideational factors enter into this process?

⁷ While I do think that emotions can be relatively long-term processes, it is not clear to me that they can last for years or even a lifetime, as Solomon suggests. A worry is that this picture conflates moods (pervasive and lingering, object-less affective experiences such as depression or euphoria) with emotions (specific affective experiences defined in part by their object relations and temporal duration). Insofar as this conflation blurs the experiential complexity of our affective life, I’m inclined to think that there is value in a more nuanced taxonomy. This is a complicated question, however, so I set it aside for the sake of brevity. My thanks to the editors for pressing this point.

⁸ So, this view contrasts with Carroll Izard’s characterization of emotions as “brief . . . responses” (Izard, 1974) and Joseph LeDoux’s characterization of emotions as rapid neurological (amygdala) responses distinct from the cerebral activity that generally follows them (LeDoux, 1996; see also Damasio, 1999; Panksepp, 1992).

This brings us to the second important lesson drawn from the previous example: as transactions with the social niche, emotions are forms of engagement or “variations of belonging to the world” (Merleau-Ponty, 2002, p. 415). We use emotions to construct, modify, and negotiate various aspects of our relationships with other people and with the surrounding context (Hinde, 1985; Maclarens, 2011). This is their social niche-constructing function. However, since these processes involve others—and since, moreover, these interactions are always situated in a particular time and place—ideational factors reflecting the temporal and socio-cultural particularities of the context enter into this transactional process in important ways.

Athletic events—and the influence of audience effects therein—are fertile places to observe the intermingling of material and ideational factors in emotional transactions. For example, ten-pin bowling players smile significantly more after producing a positive event (e.g., bowling a strike or spare) when they turn to face their friends than when they are still facing the pins (Kraut & Johnston, 1979). The physical presence of others provides a social niche in which a smile functions beyond merely expressing inner affect. Rather, the smile articulates a strong social motivation: an intention to share one’s happiness and to relish the further development of this experience as mediated by the affiliative displays of others. A similar effect was observed in Spanish soccer fans who issue authentic (i.e., “Duchenne”) smiles in response to goals only when facing one another (Fernández-Dols & Ruiz-Belda, 1997). Even Olympic athletes, whom one would presume could barely contain their joy at reaching the pinnacle of their field, smile during medal ceremonies almost exclusively when actually receiving their gold medal—that is, when interacting with officials and the public—as opposed to non-interactive contexts such as before the ceremony (by themselves in the tunnel, away from TV cameras) or while facing their country’s flag during the playing of the National Anthem (Fernández-Dols & Ruiz-Belda, 1995).

In these cases, displays of happiness are more than simply the expressive aspect of an intensely felt inner emotion or physiological reaction; rather, they are offered to motivate interaction and to establish a particular sort of relationship with others. Studies of audience effects on emotional experience suggest that facial displays and other bodily expressions of emotion are in this way mediated by the extent to which individuals can fully interact in social situations (Chovil, 1991).⁹ Even as adults, it often takes the presence of others to draw an emotion out of us and help us complete it—recall studies of infant emotion-regulation discussed earlier—much the same way that certain cognitive processes (multiplying three digit numbers or remembering complex navigational directions) are only possible when we engage with the right tools within our cognitive niche

⁹ This is not to deny that we never smile or feel happy, for example, when alone. But audience effects are also present in these solitary contexts, which are shaped by an implicit sociality (Fridlund, 1991). Even when alone, we often interact with others via imagination or memory, anticipation or forecast—or we might even take ourselves as an interactant (e.g., muttering under our breath and responding, scolding or blaming ourselves, etc.).

(pen and paper, maps, or GPS units). The physical presence of others acts as a material emotion amplifier.

However, the culturally situated nature of these emotional transactions means that ideational factors open up a type of emotional experience and form of expression unique to this context. They constrain what we experience and how we express it. And these constraints have long-term consequences for emotional development. Think of the intense bond that rooting for the same sports team generates among fans, as well as the extravagant displays of enthusiasm this bond generates—emotional transactions deemed acceptable only within the confines of the sports stadium. Outside of this context, socio-cultural constraints dictate that these displays be viewed with suspicion or annoyance. However, from a very young age, children attending these events see that athletic competitions are (for better or worse) niches within which one can let go of most forms of self-regulation and allow emotions to unfold, collectively, in various extravagantly liberated ways. A crucial part of a child's emotional development—the cultivation of their emotional habits or different ways of “belonging to the world”—is thus to become attuned to how ideational factors establish standards of emotional appropriateness within the material confines of different social niches.¹⁰

One need not look exclusively to athletic contexts, of course. Consider weddings. Wedding ceremonies are an important part of nearly every culture. Most of us attend them regularly from a very young age. We learn early on that weddings are important, memorable events. And we see that they tend to be occasions of intense emotions for all involved. Here, as with the athletic examples, the material features of this niche play a real-time role in scaffolding the performance of various emotions. The wedding context is bursting with emotional technologies designed to facilitate the appropriate feelings: special music and singing; codes of dress and behavior; ritualized aspects of the ceremony and celebration; features of the setting such as decorations, food, and the building or location itself (e.g., a church, temple, or specific natural locale). As with the time-pressured nature of our cognitive transactions, the organization of these material factors similarly help participants work up the appropriate emotions at the right time. For example, “[t]he ornate yet somber setting of the church, the organ music playing, the sequencing of scenes, and the congregation’s conventional reactions together serve to orchestrate emotional responses at a more implicit level” (Parkinson et al., 2005, p. 227).

These factors organize attention and regulate emotional experience and expression. But again, their organization embodies ideational factors, too. The specific technologies structuring a wedding in a Catholic church will differ markedly from, say, those making up a Hindu or a secular wedding ceremony. They embody distinct values, norms, and practices governing distinct emotion scripts and display rules (cf. Markus & Kitayama, 1994). Once more, the simple point is that ideational factors of the social niche exert a material impact on long-term emotional development. Learning to negotiate the complex

¹⁰ Again, these patterns of cultural entrainment start at a very young age, as the Zulu mothers example discussed earlier indicates.

emotional dynamics of these niches—that is, learning both to conform to, and *resist*, the material and ideational constraints of the niches we inherit, inhabit, and create—is a crucial aspect of our long-term emotional development.

Conclusion

I have argued that emotions might be productively thought of as distributed processes of social niche construction. Such a perspective, I suggest, helps us to see the extent to which emotions—on both short-term and long-term time scales—emerge from within, and are at times partially constituted by, the dynamics of an agent’s ongoing interaction with evolving social contexts. I summoned multiple sources of empirical research to defend this distributed characterization of emotions and to highlight how material and ideational factors within our niches constrain emotional performance and experience.

Let me be clear that the point of these reflections is not to suggest that an individualist perspective on emotions is never appropriate. Emotions are complex and multidimensional; accordingly, they lend themselves to multiple levels of description. Nothing I’ve said is incompatible with the idea that emotions partially consist in intraindividual states or processes. Without a properly functioning brain and central nervous system, our emotional life would be very poor, indeed. To put this point another way, it is highly plausible that some emotions have representational aspects (e.g., evaluative judgments or appraisals), correspond to specific physiological states of bodily arousal, and generate environmentally-responsive action tendencies. Rather than deny the complex reality of emotions, I have instead tried to offer reasons to be wary of individual-centered approaches that reduce this complex reality to any one component or mechanism. An excessively narrow perspective abstracts emotions away from the larger bodily, social, and interactive contexts in which they are always situated. This simplification can help motivate an individualist perspective on emotions. But emotions are more than any one thing—and they are always situated, and thus have a social face. Peter Hobson puts the point well when he notes that, “[i]n the realm of social engagement, it may be more appropriate to consider emotions as relational states that implicate self-other poles of experience” (Hobson, 2012, p. 174). Thinking of emotions as ongoing transactions with the world—collective instances of social niche construction and maintenance—helps us, I suggest, preserve their multi-dimensional complexity as well as honor the collaborative social practices that are part of their nature.

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Section 4

The social consequences of collective emotions

Chapter 12

The function of shared affect in groups

Janice R. Kelly, Nicole E. Iannone,
and Megan K. McCarty

Purdue University

A growing body of research provides evidence for the often automatic spread of affect through groups (Barsade & Gibson, 1998; George, 2002; Kelly & Spoor, 2012). This shared affect, where group members come to feel similarly valenced affective states, appears to serve several functions, including facilitating communication and intragroup bonding. The emotional mimicry that underlies shared affect is thought to be part of a broader automatic tendency to mimic interpersonal behavior, which affects interpersonal rapport and liking (Chartrand & van Baaren, 2009; Hess, Houde, & Fischer, Chapter 7, this volume). Spoor and Kelly (2004) described the possible mechanisms that underlie affective transfer, including emotional contagion (Hatfield, Cacioppo, & Rapson, 1994) and social entrainment (McGrath & Kelly, 1986), and argue that these mechanisms have arisen because affect serves important functions in groups. Specifically, affect in groups serves an important communication function with the aim of mobilizing group members into action, as well as serving as a way of bonding members to the group. In this chapter, we discuss the research evidence that supports these two functions of affect in groups, as well as the mechanisms and contextual factors that may underlie and enhance the transfer of affect among group members. We also explore boundary conditions of shared affect, as well as several types of disruptive affective experiences in groups, such as mass hysteria and group panic, as counterpoints to the beneficial effects of group affect initially described.

Mechanisms that support shared affect in groups

Types of affective experiences

Affect is an umbrella term used to describe experiences that differ in duration, strength, specificity, and causality. Dispositional affect is an individual difference that underlies how people typically feel, and affects how people generally interpret the world around them (Goldsmith & Campos, 1986). Emotions occur due to a known cause, and tend to be short in duration, and more intense (Frijda, 1994). Emotions also tend to be

more absolute, such that a person may feel discretely angry, happy, or sad. Moods are less specific and are typically of simple positive or negative valence. Moods are less intense, diffuse, and the cause of the mood is generally unknown (Forgas, 1992; Tellegen, 1985). Throughout the chapter we use the more inclusive term of “affect” rather than specific terms such as emotions and moods except where a research tradition dictates the use of a more specific term (e.g., emotional contagion, emotion regulation).

Affective experiences of members often spread through groups through bottom-up processes (Kelly & Barsade, 2001) arising from combinations of individual group member affective states. A number of mechanisms have been proposed that support such affect transfer, including emotional contagion and behavioral entrainment. Shared affective experiences can also be influenced by top-down processes, such as affective norms that prescribe particular affective experiences or expressions. As a result of these processes, group members come to experience similarly valenced, shared affect.

Emotional contagion

Emotional contagion is “the tendency to automatically mimic and synchronize expressions, vocalizations, postures, and movements with those of another person and, consequently, to converge emotionally” (Hatfield et al., 1994, p. 151; see also Hatfield, Carpenter, & Rapson, Chapter 8, this volume). Emotional contagion is thought to be an unconscious process whereby individuals mimic others’ facial expressions and end up feeling an emotion congruent with these facial expressions via facial feedback. The facial feedback hypothesis suggests that simply engaging in facial poses similar to typical emotional expressions can lead to the experience of these, or affectively similar, emotions. Individuals do not need to be aware of the similarity between their facial pose and the emotional expression for this feedback process to occur (Strack, Martin, & Stepper, 1988). Thus, emotional contagion is a passive process of affect regulation (Kelly & Spoor, 2012).

Facial feedback may not be a necessary component for emotional contagion to occur. Indeed, a growing body of research suggests that mimicry can occur relatively automatically (Chartrand & Bargh, 1999). This is true of the facial and emotional mimicry involved in emotional contagion, as well as verbal and behavioral mimicry. Neuropsychological work on mirror neurons, neurons that fire both when an action is enacted by oneself and when one perceives that action enacted by another, may provide a potential biological basis for emotional contagion, and mimicry more generally (e.g., Bastiaansen, Thioux, & Keysers, 2009; Rizzolatti & Craighero, 2004; Lamm & Silani, Chapter 5, this volume).

Although initial work on emotional contagion focused on individuals, more recent work has explored the phenomenon in groups (Barsade, 2002; Spoor & Kelly, 2009). For example, Bartel and Saavedra (2000) provided support for emotional contagion processes by demonstrating mood convergence in assorted work teams. Similarly, Totterdell, Kellett, Teuchmann, and Briner (1998) found in community samples of nurses and accountants that people’s moods were associated with the collective mood of their teammates. Experimental laboratory work has also demonstrated emotional contagion in ad-

hoc groups (e.g., Ramanathan & McGill, 2007). For example, Barsade (2000) and Gump and Kulik (1997) each provided evidence for emotional contagion both in groups of naïve participants and in groups in which confederates were trained to express particular emotions.

Social entrainment and interaction synchrony

The transfer of affect through a group may occur by mechanisms other than emotional contagion. For example, McGrath and Kelly (1986), in their social entrainment model, suggest that much of human social behavior can be characterized by temporal rhythms, including the expressive behavior of two or more individuals in interaction. Over time, their cycles of expressive behavior may become entrained to one another, such that they occur in synchrony, leading to expressive similarity. Thus behavioral entrainment may produce or reinforce the affective mimicry of emotional contagion (Kelly, 2001).

Similarly, interaction synchrony may also reinforce emotional contagion. Interaction synchrony is the coordination of movements between individuals that tends to occur automatically as people interact together (Richardson, Marsh, & Schmidt, 2005). Interaction synchrony has been shown to lead to group rapport (Tickle-Degnan & Rosenthal, 1987) and satisfaction with the interaction (Bernieri, Reznick, & Rosenthal, 1988), and so may be a mechanism for increasing positive affect within groups.

Emotion regulation

Another mechanism that supports shared affect in groups is emotion regulation. Emotion regulation encompasses the “processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions” (Gross, 1998, p. 275). Emotion regulation involves regulating internal feeling states, emotion-related cognitions, emotion-related physiological consequences, and emotion-related behavior.

One reason for engaging in emotion regulation may be to feel or display an emotion appropriate for a given situation. That is, group members might conform to whatever affect is salient in a group situation. However, emotion regulation can have negative consequences for performance. Both emotion suppression and emotion exaggeration may lead to performance deficits (Richards & Gross, 2000).

A second reason for engaging in emotion regulation may be to regulate the emotions of others (Kelly & Barsade, 2001). For example, consider a leader trying to provoke a group into action. This leader may speak in an angry tone, make angry facial expressions, and tell the group members that they should be angry. Thus, the group may become angry based on this leader’s encouragement.

Affective impression management

Affect regulation may also take the form of affective impression management, or attempts to suggest to others that one is in a particular affective state (Kelly & Barsade, 2001; Kelly & Spoor, 2012). Thus, affective impression management involves actively trying to

convey that one is experiencing an affective state that is appropriate for the given context. Affective impression management may be motivated by a variety of factors.

Affective impression management may occur due to the existence of display rules, or norms regarding what affective states should be expressed in certain contexts. Individuals may be motivated to express emotions consistent with these display rules. Engaging in affective impression management in exchange for wages is referred to as emotional labor (Hochschild, 1983). Occupations in the service sector (e.g., flight attendants, real estate agents) may be particularly likely to involve emotional labor (Ashforth & Humphrey, 1995).

Affective impression management may also be motivated by individuals' naïve theories regarding what affective states are most effective for the task at hand (Kelly & Spoor, 2007), or by a desire to engage in persuasion attempts (Kelly & Barsade, 2001; Van Kleef, Van Doorn, Heerdink, & Koning, 2011). Additionally, affective impression management may occur due to basic social comparison processes (Gump & Kulik, 1997; Sullins, 1991). Individuals may monitor their group members for information regarding the appropriate affective response, and regulate their affective expressions accordingly in an effort to fit in with the group.

Thus, a variety of factors may motivate affective impression management. As affective impression management is other-directed, it only need entail surface level expressions of affective states. However, affective impression management may influence one's actual affective state through a variety of mechanisms including facial feedback (Strack et al., 1988).

Functions of shared affect in groups

Spoor and Kelly (2004) argue that at least some of these mechanisms for the spread of affect through groups have developed because shared affect in groups serves important group functions. In particular, affect is thought to be functional for groups by helping to coordinate group activities via the communication and sharing of affective states. We argue that affect can facilitate group activity by both improving intragroup communication and encouraging group bonding.

Communication

One of the primary functions of shared affect in groups is communication (George, 2002; Spoor & Kelly, 2004). Shared affect is a medium through which important information may be disseminated across group members. This information may take a variety of forms.

Affect may communicate information regarding factors external to the group. For example, a fear expression on the part of a single group member may quickly signal danger to the entire group, allowing the group time to respond appropriately to the threat. Alternatively, positive affective expressions may signal that the external environment is safe. Thus, affective expressions in groups may be evolutionarily adaptive, by enabling groups to respond appropriately to their environments (Spoor & Kelly, 2004). This

evolutionary explanation suggests that it may be particularly adaptive for groups to share negative affect, which may signal external threats. Consistent with this reasoning, there is evidence that negative affective states might be more emotionally contagious than positive affective states (Joiner, 1994).

Affect also communicates information about factors internal to the group, such as the mental states and behavioral intentions of other group members. Emotions such as fear may communicate a need for help, while guilt may communicate a desire for forgiveness (Parkinson, 1996). Affective expressions may also convey important information about behavioral intentions. For example, research suggests that expressions of positive affect are related to cooperative intent in a Prisoner's Dilemma game, while expressions of contempt are related to non-cooperative intent (Reed, Zeglen, & Schmidt, 2012).

Leaders' affective expressions in groups may be particularly important, as they may convey mental states and behavioral intentions related to leaders' perceptions of current task performance (Humphrey, 2002). Research by Sy, Cote, and Saavedra (2005) suggest that leaders' positive moods may imply the group's task performance is acceptable, while leaders' negative moods may imply the group's task performance is inadequate.

By communicating this information regarding group members' mental states and behavioral intentions, affective expressions in groups may elicit particular responses from the receiver(s), thus coordinating the actions of group members (Van Kleef, De Dreu, & Manstead, 2004). For example, Wubben, De Cremer, and van Dijk (2011) suggest that expressions of disappointment may be more successful at eliciting cooperative responses in others than are expressions of anger.

Shared affect, like shared cognitions, may also communicate a particular task frame, helping group members better coordinate their activities. Thus, affect may assist the group in adopting a particular course of action, increasing coordination (Spoor & Kelly, 2004). Shared affect results in group members experiencing synchrony through establishing similar physiological, psychological, and behavioral responses (Rime, 2007). Indeed, research suggests that affective convergence is associated with positive group dynamics. Barsade (2002) found that shared positive affect was associated with increased cooperation and decreased group conflict. Additionally, negative affect may lead groups to take a more effortful and critical approach to a task (Clore, Gasper, & Garvin, 2001).

Affect may also convey important information about group structure, in particular regarding the relative standing of group members (Hess, Blairy, & Kleck, 2000; Keltner & Haidt, 1999). Theoretical and empirical work suggest that higher status within a group is associated with the experience of positive affect, while lower status within a group is associated with the experience of negative affect (Lovaglia & Houser, 1996). Status may be associated with specific affective states, such that high status is associated with pride and anger, while low status is associated with gratitude, sadness, and guilt (Tiedens, 2001). These affective status differences may be perpetuated through a variety of the mechanisms mentioned earlier, ultimately reinforcing the group structure and roles. High-status group members may also be allowed to express a wider array of affective states (Galinsky, Gruenfeld, & Magee, 2003). Thus, although we have focused on the functions of shared

affect in groups, affective diversity in groups may also serve important communication and coordination functions.

In sum, affect in groups serves a communication function by communicating information about the environment, information about the mental states and behavioral intentions of group members, information regarding task frames, and information regarding group structure. This communication may elicit desired responses in the receiver, increasing group coordination. Thus, affect in groups is functional, as it can help facilitate the achievement of group goals, mobilizing groups to action.

Bonding function

A second main function of shared affect in groups, positive or negative, is the facilitation of group bonding (Spoor & Kelly, 2004). Both shared positive affect toward your own group members (Forsyth, 2006) and shared negative affect toward members of other groups may solidify group bonds (Frijda & Mesquita, 1994; Heise & O'Brien, 1993).

Shared positive affect within a group can impact behavior in a workplace environment. Research suggests that group positive affective tone is negatively associated with absenteeism (Mason & Griffin, 2003). Positive affective tone can also affect group performance. Sales teams from insurance firms in Taiwan with leaders expressing positive affect had better team performance, as mediated through the positive group affective tone (Chi, Chung, & Tsai, 2011). Other research with work groups showed that convergence in members' affect was positively associated with stable group membership (Bartel & Saavedra, 2000), suggesting that work group members' shared affect leads to commitment.

Shared affect that results from a shared event may also increase bonding. For example, when group members discussed their positive or negative affective experiences together, they displayed more indicators of belongingness, such as using "we" and other morale building comments more often (Klep, Wisse, & Van Der Flier, 2011). Additionally, those in the interactive negative affective sharing condition reported more belongingness than those in positive moods, suggesting that the act of sharing negative affect may lead to stronger group bounds.

Other research has supported the importance of shared negative moods to group bonding. When working on a creative production task, group members experiencing negative affect demonstrated a stronger relationship focus (Grawitch, Munz, & Kramer, 2003). Group members who experience negative affect may use their social connections to feel better, thus increasing their relationship focus, and concurrently, their interpersonal bonds.

Tanghe, Wisse, and Van Der Flier's (2010) research has shown that when groups' affective states are more homogenous (for both positive and negative affect), identification with the group is higher. Additionally, when group identification was high and the group had a positive affective tone, there was a higher collective willingness to engage in organizational citizenship behaviors, a way of demonstrating commitment to the group. While shared positive intragroup affect is believed to provide a collective identity, shared negative

affect toward outsiders may also solidify a group's bond (Frijda & Mesquita, 1994; Heise & O'Brien, 1993). Costarelli and Calla (2004) showed that those who identified highly with their ingroup displayed more ingroup favoritism, a type of ingroup positive affect, and outgroup derogation, a type of outgroup negative affect.

A final important form of group bonding is group cohesion, perhaps the most studied affective construct in groups (Kelly, 2001). A large component of group cohesion is shared positive affect toward the group (social attraction) and shared positive affect toward members of the group (personal attraction) (Hogg, 1987). Cohesive groups often perform better (Mullen & Copper, 1994), in part because they have coordinated efforts that lead to better performance (Zaccaro & McCoy, 1988), but also because cohesion leads to increased conformity to group norms (Festinger, Schachter, & Back, 1950; O'Reilly & Caldwell, 1985). Thus, shared positive affect toward the group and its members can lead to increased cohesion which leads to improved coordination and increased conformity to group norms.

Shared affect is important for group bonding. Shared positive affect toward the group helps to increase cohesion and commitment to the group. Sometimes these bonding processes also improve group performance (Mullen & Copper, 1994). On the other hand, shared negative affect toward other groups can also serve to solidify group bonds. Thus, shared affect is an important component of group bonding.

Boundary conditions for group affect

Contextual factors

Although shared affect serves important communication and bonding functions in groups, there are essential boundary conditions to affective sharing. If shared affect was left to spread unchecked, more extreme negative and positive spirals of group mood would develop creating unworkable and unsustainable affective experiences. Although groups can experience extreme affective states, in most cases, the affective experience is a more moderate one.

What processes are in place to check affective spirals? Thus far, we have described how both bottom-up and top-down processes can influence the spread of affect through a group. However, top-down processes may be especially important in constraining affect (Kelly & Barsade, 2001). For example, groups operate in contexts that might contain strong messages about appropriate emotional expression (Rafaeli & Sutton, 1989). Those norms may serve to constrain the spread of affect or to constrain the extremity of the affective experience.

Kelly and Barsade (2001) distinguish between local group norms, which are idiosyncratic to each group, and organizational emotion norms, which occur within the system in which the group is embedded. Local group norms may develop based on the group's interaction history. They may develop because of recurring affective states that seem to characterize the group's interaction, which may later be codified into norms, or because of repeated group outcomes of success or failure. Organizational norms, on the other

hand, govern which emotions are suitable to display in a particular organizational context (Kelly & Barsade, 2001; Rafaeli & Sutton, 1989). Organizational norms are likely more contextually limited.

Affective diversity

Although this chapter has focused on shared affect, affective diversity may also have important contributions to group functioning. Barsade and Gibson (1999) argue that group affect should be conceptualized not only in terms of mean levels, but in terms of variability as well. Although there is currently no literature that relates affective diversity to performance, there has been speculation that affective diversity may be beneficial to groups in particular contexts (George & King, 2007). Although affect tends to spread across group members, Tiedens, Sutton, and Fong (2004) argue that other group processes push members toward affective diversity. For example, individual differences in affective dispositions and social hierarchies can encourage affective heterogeneity.

George and colleagues (George, 2002; George & King, 2007) argue that affective homogeneity may in fact be dysfunctional for groups in particular situations. They argue that the shared affect involved when a group affective tone develops can lead to a single shared reality that artificially inflates feelings of confidence. In particular, when groups are faced with complex, equivocal, and dynamically changing tasks, as characterizes many teams at work, they may benefit more from affective diversity and the subsequent multiple perspectives that might ensue.

Individual differences

Individual differences in susceptibility to the sharing of affect, both in terms of source and target of affect, can also influence the degree of affective sharing within a group. That some people are more susceptible to emotional contagion was recognized with the development of the Emotional Contagion Scale (Doherty, 1997), a scale that assesses vulnerability to contagion of both positive and negative affect. Doherty, Orimoto, Singelis, Hatfield, and Hebb (1995) found that women, across all ethnic groups tested, were far more susceptible to contagion of both positive and negative affect than were men. Culture can also affect the contagiousness of targets. In a review of research on culture, Markus and Kitayama (1991) suggest that individuals with an interdependent self-construal are more susceptible to emotional contagion than are individuals with a more independent self-construal.

Sources of emotional contagion can also vary in terms of the strength of their transmission of emotions. For example, Friedman and Riggio (1981) found that individuals who were high in non-verbal expressiveness were more easily able to transmit affect to others. Women, who tend to be more affectively expressive than men (Hall, 1984) should also be stronger senders of affect compared to men.

Another important individual difference that may impact the degree of affective sharing in groups is trait affect. The trait positive affect make-up of top management teams was examined by Barsade, Ward, Turner, and Sonnenfeld (2000). Those teams who were high in trait positive affect and similar or different in their levels of trait positive affect showed

high cooperation and low affective and task conflict. Additionally, the teams who were low in trait positive affect but similar in their levels of trait positive affect also showed high cooperation and low affective and task conflict, while the teams who were low in trait positive affect but different in their levels showed lower cooperation and higher conflict. This suggests that affective similarity and being high on trait positive affectivity are key components of cooperation and lessened conflict in teams.

Disruptive emotional processes in groups

We have thus far been emphasizing the positive functions of affect in groups in terms of mobilizing groups to action or group bonding. But affect in groups can be dysfunctional and disruptive as well, sometimes in quite catastrophic ways. This section focuses on the potentially harmful effects that may occur when dysfunctional or disruptive affect spreads through groups. We will focus on the phenomena of mass hysteria and group panic.

Mass hysteria

There are a number of conditions where dysfunctional emotions are contagious across groups of people. Mass psychogenic illness (also called mass sociogenic illness) refers to conditions where symptoms of illness spread across a group in the absence of any viral or bacterial contagion (Bartholomew, 2001; Hatfield et al., Chapter 8, this volume). Mass hysteria is a somewhat older term and refers to conditions where affective symptoms spread across a group, such as contagious laughter (Provine, 1996) or somatic anxiety symptoms (David & Wessely, 1995). We will focus on this latter kind of emotional contagion.

Wessley (1987) distinguishes between two general types of mass hysteria: anxiety hysteria and motor hysteria. Anxiety hysteria is typically of rapid onset and short duration, and usually occurs in reaction to the sudden perception of a threatening agent. It is, essentially, the conversion of anxiety symptoms into physical symptoms (e.g., breathlessness, nausea, headache). Motor hysteria grows more gradually and dissipates more slowly. It tends to occur in situations of high stress and rigid protocol. The symptoms are thought to be manifestations of pent-up anxiety that is released in the form of twitches or tics.

Several social psychological explanations have been proposed for mass hysteria (e.g., Pennebaker, 1981; Singer, Baum, Baum, & Thew, 1981). For example, Bartholomew and Victor (2005) suggest that mass hysteria occurs when a collective anxiety is induced by a widely shared threat rumor. That shared belief intensifies fear and leads to psychological stress, such that the group essentially experiences a collective anxiety attack.

Group panic

Group panics occur when fearful emotions, such as anxiety or fright, spread quickly through a crowd. Forsyth (2006) distinguishes between escape panic, in which a group is escaping from an aversive situation, and acquisitive panics, in which a group is seeking a limited resource that they fear will run out. Some groups are able to avoid panic in these situations, but when fear or anxiety overwhelms the orderly behavior of the crowd, group panic may ensue with sometimes disastrous results. Some particularly salient examples include the escape panic that occurred among those trying to exit from a pushing crowd

at a concert by The Who, where people were trampled to death as concert goers surged over the top of them (Johnson, 1987).

Group panic has had some limited experimental investigation. For example, Chertkoff, Kushigian, and McCool (1996) investigated the effect of group size and time constraints on turn taking exiting behavior. They found that larger groups and groups with shorter time constraints passed smaller proportions of their groups through the exit, suggesting that these conditions may be particularly relevant to group panic situations.

Conclusion

In this chapter, we argue that shared affect serves positive functions for groups in terms of facilitating communication and encouraging group bonding. Shared affect may occur due to mechanisms such as emotional contagion, social entrainment and interaction synchrony, emotion regulation, and affective impression management, processes that may lead group members to experience similar moods. Sharing positive affect with group members may lead to positive group outcomes and processes in the forms of communication and bonding, yet shared negative affect toward other groups may also increase bonding. Those processes help groups to coordinate actions, engage in smooth interaction, enforce uniform norms, and perform at more optimal levels. However, we recognize that there are some limits to affective sharing processes, especially when faced with contextual norms that place limits on emotional expression. Shared affect can also lead to negative consequences when extreme levels of affective sharing occur. Although shared affect has been shown to produce positive results for groups, more research is also needed to explore the boundary conditions of affective sharing.

Although we have focused in this chapter on shared affect as it occurs in an intragroup context, future work might include other affective constructs that are more intergroup in nature, such as group-based emotions and emotional climates. Group-based emotions deal with larger social categories, such as nationalities, rather than with smaller groups. When members of these social categories experience similar emotions directed toward others, their intergroup attitudes and behaviors may be impacted (Mackie, Devos, & Smith, 2000; Ray, Mackie, & Smith, Chapter 16, this volume). These differ vastly from emotional climates which “is emotion accessibility caused by the priming of specific categories of emotion linked to emotional conventions” (Fernandez-Dols, Carrera, Mendoza, & Oceja, 2007). For example, holidays are often thought of as happy occasions because they are associated with the terms “happy” and “merry” and other positive emotional conventions (Fernandez-Dols et al., 2007). Thus, shared affect may be conceptualized to include both intragroup and intergroup processes.

Finally, although this chapter has focused on shared affect, affective diversity deserves more exploration. We note that affective diversity may sometimes benefit groups and may sometimes be detrimental to groups. The conditions that produce these different outcomes need further conceptual and empirical elucidation. With the increasing focus on affect in multiple fields, and with the growing interdisciplinary focus on groups, affective processes in groups should continue to be an area of active investigation.

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Chapter 13

The emergence of collective emotions in social exchange

Edward J. Lawler,^a Shane R. Thye,^b and
Jeongkoo Yoon^c

^aCornell University, ^bUniversity of South Carolina, and ^cEwha
Womans University

This paper theorizes that social exchange, a form of interaction driven by individual self-interest, has important emotional effects on individuals. Under some conditions, these individual emotions are transformed into collective emotions. The emotions are “collective” if actors have common feelings and these are perceived or defined by them as such. Collective emotions strengthen the cohesion and solidarity of relational or group ties, making it more likely that actors come to distinguish and value relational objects implicated in the interaction. These relational objects may be small groups, organizations, communities, or even nations. This paper examines how collective emotions can emerge using a longstanding program of theory and research that deals with the role of positive everyday emotions in social exchange relations (e.g., Lawler, 2001; Lawler, Thye, & Yoon, 2000, 2009; Lawler & Yoon 1996; Thye, Lawler, & Yoon, 2011).

Social exchange entails two or more actors giving each other something of value. Giving something of value is contingent, implicitly or explicitly, on receipt of something of value. It takes at least two people to exchange and this presumably occurs only if both parties have something to gain. Precisely what is gained is contingent on the value placed on the outcomes or goods and how available (or scarce) these are from alternative sources (Blau, 1964; Emerson, 1972; Thibaut & Kelley, 1959). Richard Emerson (1972), in his classic statement, defines social exchange as repeated exchange among the same actors over time. The *social* in social exchange therefore implies an ongoing relational, network, or group tie among the actors and also individual incentives that motivate the individuals to exchange with one another. These are scope conditions for our analysis. A spot market and many other forms of economic exchange do not fit this definition. That social exchange is inherently an ongoing relational phenomenon was Emerson’s fundamental insight.

The relational property also implies that social exchange is a collective phenomenon. Yet, in social exchange theorizing, the relational and collective dimension of exchange is interpreted in decidedly individualist terms (see Ekeh, 1974, for an exception). Exchange

relations ostensibly form and are maintained only insofar as they provide a means by which individuals pursue rewards or outcomes that they value. Indeed, relations in exchange theory are based on self-interest and construed in purely instrumental terms. Collective outcomes of social exchange (e.g., agreements, jointly produced goods, common feelings) typically are explained by structural incentives that generate rewards at the individual level. By generating positive or negative rewards for actors, however, social exchanges also are known to generate individual emotions such as pleasure or displeasure, feeling good or feeling bad, anger or shame, and so forth (Lawler & Thye, 1999; Lawler & Yoon, 1996). These individual-level emotions are unintended byproducts of pursuing individual gain through exchange; moreover, they have effects on the ties people form to social units at various levels—relations, groups, organizations, communities, and nations (Lawler et al., 2009).

In exchange theorizing there is no discernible way to get from individual emotions to collective emotions; nor is there any theoretical reason to do so in the context of classical social exchange frameworks (Emerson, 1972; Thibaut & Kelley, 1959; Willer, 1999). From social exchange theory, emotions are internal rewards (costs) or reinforcements (punishments) and can be subsumed within standard reward-cost frameworks. Emotions are fundamentally construed as another type or class of reward or cost that emerges from the interaction. In this sense emotions are epiphenomenal in social exchange theory.

Recent research on social exchange shows that if individuals experience positive feelings in response to repeated social exchange, they develop more positive regard for each other and more positive sentiments about their group (e.g., Lawler, Thye, & Yoon, 2008; Lawler & Yoon, 1996; Lawler et al., 2000; Molm, Collett, & Schaefer, 2007). An emotional/affective process is a plausible mechanism through which stable micro orders emerge from repeated social exchange among the same actors (Lawler et al., 2008). A *micro social order* involves repeated interactions in which actors orient themselves to a relational unit, experience positive emotions, perceive that social unit as an object, and develop affective sentiments toward that object over time (Lawler et al., 2008). Common emotional responses to social exchange are central for the emergence of micro social order. However, the fact that emotions are common or similar is not sufficient to characterize them as “collective emotions.”

The question we address in this chapter is as follows: When are individual emotions from social exchange transformed into collective emotions? We theoretically extend recent exchange theories of emotion to formulate an answer to this question (Lawler, 2001; Lawler & Yoon, 1996; Lawler et al., 2000, 2008, 2009). An emotion is defined as a transitory evaluative state (positive or negative) with physiological and cognitive components (Clore et al., 1987; Izard, 1991). Emotions involve an internal neurological response of the human organism that cascades through the body (Damasio, 1999). In essence, to “feel good” is to feel good “all over.”

Collective emotions have been defined in varied ways in the past decade or so (Bar-Tal et al., 2007; Emirbayer & Goldberg, 2005; Kanyangara et al., 2007). A common component is that such emotions are *shared* in some sense and that members are *aware* of

them. Bar-Tal and colleagues (2007) distinguish collective emotions from group-based emotions. Collective emotions are shared by “large numbers of people in a society” and are a response to “collective or societal experiences” (Bar-Tal et al., 2007, p. 442). The fear and anger Americans felt following 9/11 is a good example. Group-based emotions, in contrast, are felt as a result of a group membership itself and do not require a collective experience per se. Our working definition of collective emotion interweaves these central elements, as follows: *collective emotions are common feelings by members of a social unit as a result of shared experiences.*

A shared experience is crucial as indicated by Bar-Tal and colleagues’ (2007) definition. We retain this emphasis but loosen the group size restriction. In the context of this definition the social unit may be small, such as a dating relationship or a three-person recreational group. Conversely, the social unit may be a larger more impersonal unit, such as a community, society, or nation. The experiences that give rise to collective emotions are shared in the sense that they are generated in social interaction. We suggest that collective emotions may be either tacit or explicit. Tacit collective emotions are commonly held and acted on, but not overtly shared or expressed. Actors infer them from perceived commonalities that they share with others, which may entail common tasks, activities, identities, network ties, or group memberships. We argue that social exchange processes generate collective emotions that people act on and affirm in their interactions, and they do so without explicit expressions or physical co-presence.

In what follows we undertake two primary tasks. The first is to review and integrate some important implications of two theories that analyze the role of emotion in social exchange relations: *relational cohesion theory* (Lawler & Yoon, 1996, 1998; Lawler et al., 2000; Thye, Yoon, & Lawler, 2002; Thye et al., 2011); and the *affect theory of social exchange* (Lawler, 2001; Lawler et al., 2008, 2009). Each theory has implicit and unstated ideas about how or when exchange processes can generate collective emotions. The second task is to extend these theories by developing a series of testable principles that explicate conditions under which collective emotions are likely to emerge from social exchange and subsequently shape relational or group ties.

The theoretical argument

How can the individualist underpinnings of social exchange theory be reconciled with the idea of collective emotions? If actors in social exchange are narrowly individualist in orientation, and if their relations have no meaning beyond the benefits they individually receive, why would they infer or take account of collective feelings or emotions? Since the early 1990s we have conducted research on the role of emotion in social exchange. One key finding in our work is that, whether intended or not, emotions and feelings are byproducts of social exchange processes and these feelings have effects on actors’ tendency to perceive and act on behalf of their relations or groups (e.g., Lawler & Yoon, 1996, 1998; Lawler et al., 2000, 2009). Applying strict social exchange principles, one would not expect the cohesion of relations or groups to have any effects beyond those that bear on

individual outcomes. Yet, our research shows that they do (for reviews see Lawler & Thye, 2006; Thye et al., 2002). In the following two sections we extrapolate the implications that our research has for collective emotions.

The main line of argument is that in social exchange contexts, collective emotions emerge from the degree that actors take account of each other's interests and needs. This phenomenon helps to sustain patterns of cooperation and collaboration. We contend that collective emotions are especially important in settings where people are engaged in joint tasks but, for structural (access) or normative (emotion norms) reasons, they do not explicitly express or communicate their feelings to one another. Many contexts of social exchange, including work or educational settings, fit this pattern. Neutral, muted emotional tones are common if not normative as actors pursue serious and important objectives. We assert that whenever people do things with others, they experience feelings (along positive or negative dimensions), and it is logical then to posit that they also make inferences about each other's feelings especially when they anticipate ongoing interactions into the future. Thus, collective emotions do not have to be public or expressed to shape and organize actions and interactions.

There are several general themes, common to both relational cohesion theory and the affect theory, that have a bearing on collective emotions. The first is the simple idea that when people do things with others, they tend to experience positive or negative feelings. Emile Durkheim (1915) provided the classic statement about joint or shared activities creating collective effervescence and a sense of some higher power (society or religion). By extension, if people feel emotions in exchange, they may under some conditions attribute these to something larger than self and other, such as their relational or group affiliation. In this sense, emotions may be unintentional, involuntary consequences of even the most instrumental, pecuniary, and individualistically oriented interactions. They are not simply another component of actors' reward/cost calculations (see Collins, Chapter 20, this volume; Knottnerus, Chapter 21, this volume; van der Löwe & Parkinson, Chapter 9, this volume).

The second theme is that the emotional byproducts of social exchange may lead people to develop affective person-to-social-unit ties that promote greater cooperation and prosocial behavior than individualist reward/cost calculations would predict. Such person-to-unit ties are analytically and empirically distinct from person-to-person ties or interactions (Tajfel & Turner, 1986), and they have important implications for order and solidarity (Lawler et al., 2009). Research in the social identity tradition supports the notion that person-to-person (interpersonal) ties and person-group ties are distinct and have differential effects on group-oriented behavior (Hogg, 2004).

Third, emotions and feelings have the potential to bridge instrumental (transactional) ties and expressive (relational) ties, transforming the former into the latter. In such a transformation the relational unit becomes an object and people come to value it as an entity *unto itself* to which they orient their behavior (Parsons, 1951). Because relational entities are relatively stable parts of the environment, actors may perceive them as a source of common or shared emotions. Thus, we propose that the "objectification" of a social unit (relation, group, organization) is fundamental to understanding how individual emotions become collective

emotions. Assuming that social exchange occurs in the context of a relational tie (Emerson, 1972), the potential for objectification is present in any social exchange context. Based on Berger and Luckmann's (1966) social constructionist theory, there are two main conditions for objectification to emerge at the micro level: (1) the social interaction is habitualized (repetitive) and (2) actors develop consensual self-other definitions. Thus, it is quite reasonable to predict that the relational unit of social exchange tends to become an external object or reality for actors over time (see Yzerbyt, Muller, & Judd, 2004).

Among these unifying themes, the transformation from instrumental transactional ties to expressive relational ties is most fundamental. If social interaction (exchange) fosters positive feelings and these individual feelings are attributed to or associated with social units, actors form stronger expressive commitments to the shared relational or group ties. Objectification is important because it makes the relation itself a viable, salient target for individual feelings that are produced by social exchange processes and sets the stage for people to develop affective sentiments about the relational unit. The following theories elaborate complementary processes through which relations or groups become ends in themselves and take on expressive value.

Relational cohesion theory

The theory of relational cohesion is designed to explain how structures of dependence (power) or interdependence generate relational ties (cohesion and commitment) through the emotions produced by social exchange. The dependence of A on B is determined by the degree that B can provide A with valued outcomes unavailable elsewhere and vice versa; mutual dependence (total power) is defined as the sum of A's and B's dependence on one another (Emerson, 1972; Lawler, 1992). Emotions are conceptualized in terms of pleasure/satisfaction and interest/excitement; cohesion is the perception of a unifying relation; and commitment is measured via behavioral outcomes (i.e., staying in the relation; giving token unilateral gifts; cooperating in a social dilemma). The theory is diagrammed in Fig. 13.1.

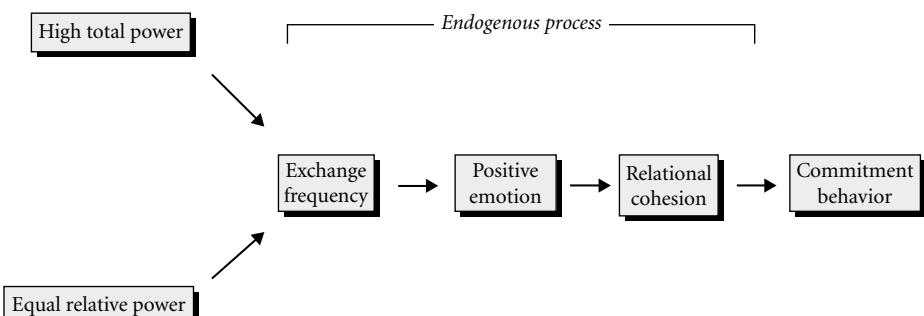


Fig. 13.1 The theory of relational cohesion. Reprinted from Lawler, E. J., & Yoon, J., Commitment in exchange relations: Test of a theory of relational cohesion, American Sociological Review, 61, pp. 89–108 © 1996. American Sociological Association, with permission.

The theory indicates that structural conditions (equal versus unequal power dependence and higher mutual dependence) strengthen a relational tie and increase commitment behaviors. The core of the theory is the endogenous process that links structural conditions (dependence or interdependence) to behavioral outcomes (commitment). This process is conceived as a fixed sequence that must occur for the structural conditions to generate the result. Thus, repeated exchanges generate positive emotions that, in turn, produce perceptions of a cohesive relation. Equal power produces more commitment because it unleashes this process generating more frequent exchange, the first step in the endogenous causal chain (see Fig. 13.1); and the same logic applies to the effects of mutual (total) dependence or interdependence. If structural conditions do not produce an increase in exchange frequency, the process will not unfold and no effects on commitment will occur. The prediction therefore is that the effects of dependence and interdependence relations on commitment formation will be mediated by the “three moments” of the endogenous process. This emotional/affective explanation indicates that repeated exchange, not only reduces uncertainty for actors (e.g., Kollock, 1994), but it also produces positive emotions that enhance relational cohesion.

The theory assumes a social context in which people have an individualist orientation, and their goal is to maximize their individual payoffs. Experiments testing the theory have been done in a context where two or more individuals, who represent different organizations, have the opportunity to negotiate agreements across 12 to 20 episodes (termed years). The actors are dependent on each other, because their greatest payoffs come from exchange with each other; they do have an alternative but the expected value of the alternative exchange is lower than the expected value of successful exchange with each other. Importantly, the actors exchange offers via computers and never see each other. They have information on their own payoffs at each agreement but not the other's payoff, so there is imperfect information about the distribution of payoffs. These are standard conditions for social psychological experiments on negotiation and exchange networks (Cook et al., 1983; Willer, 1999). To test the endogenous process, questionnaires are administered at various intervals during the experiment. These contain standardized measures of emotion and cohesion that have been refined over the years.

It is noteworthy that the experiments created conditions that, if anything, militate against the endogenous process specified by the theory (see Fig. 13.1). Why would individual emotions have any effects, given subjects are: (1) anonymous, (2) separated and communicating only via a computer, and (3) not tied to one another in the future? Even despite such unfavorable conditions, a significant number of experiments conducted across the last 20 years consistently support the main predictions of the theory (for reviews see Lawler & Thye, 2006; Thye et al., 2002).¹

¹ The research has examined and tested the theories in dyads, small groups, and small networks. The theoretical ideas, however, should apply to larger group or organizational affiliations. If people exchange items of value within those larger organizations or units, it is possible for those larger units to become objects of affective attachment. The authors have developed these general implications in their recent book, *Social Commitments in a Depersonalized World* (Lawler et al., 2009, ch. 6).

The empirical results of a large number of studies specify when the endogenous process is likely to be strong or weak:

- 1) The endogenous process—*exchange-to-emotion-to-cohesion* is stronger under the following structural conditions: (i) actors are equally rather than unequally dependent on one another; and (ii) they are highly interdependent. Under these structural (dependence) conditions, people are more likely to successfully negotiate exchanges, and thus initiate the endogenous process that leads to stronger relational ties. Furthermore, each link in the endogenous process has received substantial empirical support, and there is evidence that these steps are a necessary sequence for the structural effects on commitment to occur. If structural conditions produce high exchange frequencies but exchanges do not generate positive emotions, the process does not operate. This was shown in a study of a four-actor network that breaks down into two dyads—one equal in power and one unequal in power (Lawler & Yoon, 1998). The frequencies of exchange were high, because once the network breaks apart, actors have no alternatives to each other; yet, only equal power (dependence) generated positive emotions (see Lawler & Yoon, 1998).
- 2) The endogenous process is stronger when exchange relations are voluntary, that is, people can freely choose their partners. In a study of a four-person box-shaped network, where two relations could form, we compared a relation in which the two partners chose each other voluntarily versus one in which the partners preferred someone else but were essentially “stuck” with one another; both relations were equal power. The endogenous process was stronger in the voluntary relation than in the involuntary one (Lawler, Thye, & Yoon, 2006).
- 3) The endogenous process is stronger in small networks consisting of equal power relations that are densely connected. A recent study compared five small networks that varied in power equality/inequality and network density. They found more positive emotions, cognitive “group formation,” and profit sharing in equal power networks that are densely connected. This study extends relational cohesion theory to the network level, and finds evidence for the endogenous process as well (Thye et al., 2011).

In sum, the endogenous process consistently occurs under variable conditions; it is a robust phenomenon that emerges from social exchange.

What role might collective emotions play in this relational cohesion process? We suggest that the concept of collective emotions can elaborate and specify further how perceptions of cohesion lead to commitment behaviors. There are two reasons for this. First, the immediate antecedent to commitment, perceptions of relational cohesion, presupposes that the relation is an object to actors, that is, objectification of the relation has occurred. The relationship is salient and a viable target for actors’ emotions and feelings. Second, commitment behaviors imply the actors are “taking the role of the other,” as they attempt to anticipate each other’s actions. Consider the three forms of commitment behavior used to test commitment effects in the research: (1) staying in the relationship despite the fact that each has an equal or better alternative, (2) giving a unilateral symbolic gift to the

other not knowing whether the other will reciprocate, and (3) deciding whether to partake in a new venture with the other under conditions of risk (i.e., a decision to cooperate in a social dilemma). All of these behaviors entail a choice simultaneously made with one or more others; actors have an incentive to infer what choice the other will likely make and adjust their own choice accordingly.

Findings across several experiments demonstrate that the effects of cohesion on commitment are the largest, and often the only, significant impact on these commitment behaviors when all variables in Fig. 13.1 are included in the model. Relational cohesion is the proximal cause of relational commitments perhaps because it signals that people can infer what others are thinking and feeling. This logic implies that collective emotions are a plausible explanatory mechanism for cohesion-to-commitment effects, leading to the first principle of our theoretical extension:

Principle I. If members are engaged in the same task within a social unit and that unit is salient as a cohesive force, members are likely to infer that others in the situation are experiencing the same feelings.

Underlying this principle is a “burden of proof” assumption. We assume that people make inferences about each other’s emotional states unless they have explicit information from the other about their feelings. In face-to-face settings people would have more explicit cues of emotional states upon which to infer others’ feelings, but we contend that collective emotions are possible without face-to-face cues.

Two testable implications help to flesh out the meaning of Principle I. One is that if the endogenous process occurs, people more accurately predict the feelings experienced by their partners as a result of their common experience. A common experience alone is not sufficient, but when combined with the three moments of the endogenous process, people should be: (1) motivated to infer each other’s feelings and (2) they should do so more accurately. A second implication is that co-presence is not necessary for collective emotions to emerge and have an impact on social exchange. The relational cohesion process can occur in virtual as well as face-to-face exchange contexts. Actors may have access to more emotional cues from each other if co-present, but expressive ties to relational or group units may develop even if the members of the social unit (or subsets of them) do not interact face to face.

Relational cohesion theory therefore suggests that collective emotions represent a viable mechanism for cohesion-to-commitment effects. However, the theory lacks specificity about the cohesion-to-collective emotion link as well as the conditions under which the individual emotions are attached to the salient social object (relation or a larger group). Perceptions of a social unit as an object or entity, along with a motivation to anticipate others’ behavior, should lead actors to adopt a collective orientation. However, this alone does not explain why individual emotions evolve into collective emotions, i.e., how and why they are “collectivized?” The affect theory of social exchange proposes an emotion attribution mechanism that helps to solve this theoretical puzzle (Lawler, 2001; Lawler et al., 2008, 2009, ch. 5).

The affect theory of social exchange

This theory moves beyond relational cohesion theory in two important ways: First, it introduces the idea of “social unit attributions” and argues that these forge a connection between individually felt emotions and person-to-group affective ties. A social unit attribution is defined as the attributing of an internal state of self to a social entity (relation, group, organization). Social unit attributions may promote collective emotions by strengthening the sense of commonality, making a shared social unit, valued in itself, a part of the shared experience. Second, the affect theory specifies structural and cognitive conditions under which social unit attributions are most likely to be made for individual emotional states. The main hypothesis is that this occurs when two or more people engage in joint tasks that foster a sense of shared responsibility among them. Tasks with greater jointness enhance the prospect of an actor making inferences that their feelings are shared by others involved in the task by virtue of their social unit attributions. Each of these conditions (social unit attributions and task jointness) is elaborated as follows.

Social unit attributions of emotion refer to a process by which individual emotions or feelings are associated with or attached to a social unit (Lawler, 2001). Attribution theory in psychology has a different emphasis—namely, to what we attribute the causes of other people’s behaviors (e.g., see Kelley, 1967). Recent variants incorporate “group attributions” but these similarly involve individuals making attributions of others based on their group affiliation. Both social unit and group attributions select out social elements of the situation, but social unit attributions are distinct because they involve a person attributing their own internal state to a relational entity or social unit.² Social unit attributions are a mechanism through which people understand their own emotional experiences, and we argue that these have effects on affective sentiments about the group and, indirectly, the perception that these sentiments are shared. Social unit attributions have the potential to reduce or mitigate self-serving attributions for success or failure in a group setting.

Following Weiner (1986), our theory distinguishes global (“primitive”) from specific emotions. Global emotions are immediate, internal, and involuntary feelings (e.g., feeling good, feeling bad; feeling up, feeling down), in response to an episode of social exchange. In Weiner’s (1986) terms, they are outcome-dependent but attribution-independent. Such global responses activate an attribution process through which actors come to understand the sources of these global feelings. It is this attribution process that leads to “specific” emotions with an object, such as self, other, or social unit. Pride, gratitude, anger, shame, and group attachment/detachment exemplify these more specific emotions that emerge from actors’ explanations for their global, immediate feelings from social exchange. Different targets (explanations) generate different specific emotions. If positive global feelings are attributed to a group, it strengthens the affective attachment to that unit and renders that

² Social unit attributions are interpretations of why self’s momentary feelings are positive (good, uplifted) or negative (bad, downhearted). The assumption is that, because emotions constitute internal rewards and punishments, people are motivated to understand where they come from so that they can experience the positive ones again and avoid negative ones (see Lawler, 2001).

membership or affiliation as something valued in itself; if global feelings are negative, it weakens affective attachments to the group.³ In the case of positive emotions, the group tie becomes expressive and capable of mobilizing and sustaining collective emotions. Thus, emotions that stem from collective or shared experiences can become group based (see Bar-Tal et al., 2007; Ray, Mackie, & Smith, Chapter 16, this volume). This reasoning suggests the following principle:

Principle II. When individual emotions are attributed to social units, these emotions strengthen perceptions of a valued relational or group affiliation which, in turn, strengthens inferences that others are experiencing the same feelings.

Having conceptualized the mechanism through which individual emotions generate group affective ties, the next question is: Under what conditions will this mechanism operate to produce them?

Task jointness is the answer provided by the affect theory of social exchange (Lawler, 2001). A joint task is one that cannot be done alone or be accomplished by aggregating or averaging individual performances or contributions. Actors in social exchange have a threshold of interdependence but interdependence does not fully capture what we mean by a joint task. Joint tasks have a collective product that members foster through exchanging ideas, information, favors, and the like. The collective product is known to actors, but they do not necessarily know exactly how they each contributed to it. The degree of jointness is important because it tends to generate a sense of shared or collective responsibility for the product. Attribution theory and research suggest that people involved in tasks allocate or make inferences about responsibility; however, they tend to blame others for failure and claim success for themselves and there is no obvious role or place for social unit attributions. In an ongoing relation or group, such self-serving attributions have negative effects on the willingness to collaborate on joint tasks in the future and tend to weaken the capacity of groups to effectively solve tasks. The affect theory proposes that such divisive effects are reduced if joint tasks are structured such that they heighten actors' sense of shared responsibility for the collective product (see also Gilbert, Chapter 2, this volume; Schmid, Chapter 1, this volume).

Task jointness has objective and subjective dimensions (Lawler, 2001; Lawler et al., 2009, ch. 5). The objective structure of the task and subjective framing of it are both crucial to whether actors have a sense of shared responsibility for collective products that result. A group leader may objectively structure or subjectively define a task in terms of individualized components that comprise it, and assign responsibilities on this basis. In contrast, the leader may structure or define the task in more collective terms, stressing interconnections among its components, and highlighting collective responsibilities.

³ In the theory, the specific emotion directed at the group or unit is affective attachment/detachment. Group attachment/detachment could be manifest in a myriad of ways, such as more group-focused variants of pride, gratitude, anger, or blame. The theory does not attempt to predict the conditions under which group attachments presuppose or promote these more specific group-focused emotions, but this issue is worthy of attention in future theorizing and research.

In the theory, there is one structural condition and one cognitive condition underlying social unit attributions.

The structural dimension of joint tasks is captured by the extent that each person's contribution to the group's task success (or failure) are distinguishable (separable) or indistinguishable (non-separable). The cognitive dimension refers to how people define or frame the task itself as well as the responsibilities for carrying it out. Some tasks are structured and defined in a way that individuals cannot tell how much they each contributed to the collective product, whereas other tasks make it easy to distinguish each person's individual contribution to the group's task success. Joint tasks range widely; examples include projects assigned to work teams, collective activities of neighborhood associations, activation of political coalitions in a legislature, and child rearing practices in a two-parent household.

We argue that tasks where individual contributions are non-separable or indistinguishable have greater jointness and, therefore, promote a sense of shared responsibility and social unit attributions of individual feelings from the task. Thus, if social exchanges in a group, network, or organization produce a sense of shared responsibility, actors interpret their individually felt emotions as jointly produced and are more likely to attribute their feelings to the shared group or organizational affiliation. An important implication is that joint tasks reduce the tendency of actors to make self-serving attributions for group success, because comparisons of individual performances and contributions are difficult or impossible. Tasks that reveal differences of performance among individuals should generally weaken the sense of shared responsibility.

It is a fairly small step from the theoretical reasoning discussed here, to claim that collective emotions emerge from this process and enhance the impact of the relational tie in future interactions or exchange. The sense of shared responsibility—whether based in objective or subjective task conditions or both—is the key condition that determines whether social unit attributions of individual feelings transform individual into collective emotions. Social unit attributions can be construed as a mediating mechanism between individual and collective emotions, whereas the sense of shared responsibility can be construed as a moderating condition that activates social unit attributions. Fig. 13.2 portrays these mediating and moderating processes. It is plausible therefore that a sense of shared responsibility promotes actors' inferences that others, involved in the joint task with them, experience the same feelings and ascribe the same meanings of these shared

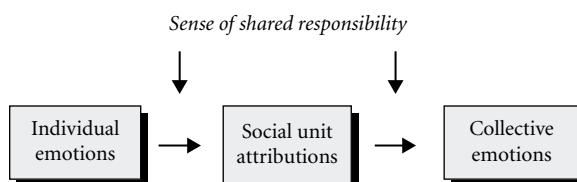


Fig. 13.2 Mediating and moderating mechanism for transforming individual to collective emotions.

feelings for their common group affiliation. The following third, fourth, and fifth principles capture this logic:

Principle III. Social unit attributions are a mediating mechanism connecting individual and collective emotions; whereas actors' sense of shared responsibility is a moderating condition for this mechanism to transform individual into collective emotions.

Principle IV. The stronger actors' sense of shared responsibility, the more likely they are to, not only attribute their individual feelings to the group, but to infer that others experience the same feelings and make the same attributions for them; the result is that: (1) collective emotions are associated with the relational or group affiliation and (2) people are more likely to act on these shared, collective feelings than otherwise.

Principle V. Positive collective emotions increase the propensity of actors to stay in group, act prosocially toward others in that group, and sacrifice their own interests for the group.⁴

The argument of this chapter can be portrayed as a series of steps built on the foundations of our two emotion-based theories. The first step is objectification of the relation, making it a salient object. Repeated exchange promotes a salient relational object through an emotional/affective process (relational cohesion theory). The second step is that given a common experience (the exchange task) and emerging salient object (a relation), actors infer that others share their own feelings. Here we add a layer of commonality to the shared experience and this reinforces or strengthens individual feelings (see Collins, 2004, for a related argument). The third step is for the social unit to become the target or attribution object for their individual feelings from social exchange (the affect theory of social exchange). Social unit attributions essentially "collectivize" the individual-level emotional states and enhance the impact of the group affiliation, as that affiliation takes on expressive value across repeated instances of social interaction. In the affect theory of social exchange, social unit attributions of individual emotion are the basis for the formation or strengthening of person-to-unit affective ties, and the sense of shared responsibility moderates this effect. A strong sense of shared responsibility makes it more likely that social unit attributions will transform individual emotions into collective emotions. Overall, the concept of collective emotions adds a new dimension to the affect theory of social exchange by pointing to the collective impact of actors' inferring each other's emotional states even in the absence of visible emotional cues or emotional contagion.

Conclusion

Our analysis suggests that there are multiple layers of commonality and that only some of these can generate collective emotions. The exchange context is one in which the actors have a common experience; they do something jointly (try to reach exchanges); they

⁴ All things considered, negative collective emotions should have the opposite effects. However, negative emotions from tasks with shared responsibility have the potential to mobilize collective efforts to address the problems associated with those negative emotions. Responses to negative emotions are more complicated and conditional which is why this proposition refers only to positive emotions (see Lawler et al., 2009, for further discussion).

produce common, shared results (rates of exchange and distributions of payoff); and they are likely to share an exogenous identity, which is brought to the exchange context. The fundamental basis for collective emotions is a common experience, but the common elements of that experience can be broken into several components: a shared identity (group affiliation), shared focus (attention to an event), collective action in response to the event; shared emotions; shared perceptions of why those emotions occur, or shared results (a collective product). Any of these commonalities could be a basis for collective emotions. Our argument stresses the importance of common experiences whatever specific form these might take. Collective emotions emerge from social exchange when common experiences are repeated and people infer that each other have similar emotional responses to those experiences.

Relational-cohesion and the affect theory of exchange predict when emotional ties develop between individuals and a social unit (relation or group). The research reveals implicitly that common or shared collective emotions emerge in social exchange and contribute to the formation of enduring relations. Social unit attributions of these individual emotions and a sense of shared responsibility for task results combine to generate affective ties to relations or groups. Such affective ties or sentiments represent *tacit* collective emotions in the sense that they are commonly held, inferred as common, and acted upon. Collective emotions ratchet up the emotional responses to exchange and strengthen the capacity of repeated exchange to generate high degrees of commitment and solidarity. While we developed these ideas with reference to relations, small networks, or groups, they are general enough to apply to the ties people form to larger organizations, communities, or nations.

Collective emotions thus reinforce and strengthen individually felt emotional states. If emotional states are positive, an upward spiral of cohesion and collective affect should make it easier for actors to collaborate and solve issues or problems when they arise. If emotional states are negative, a downward spiral likely makes collaboration more problematic over time, perhaps destroying the relationship. Collective emotions are most likely to have such reinforcing, escalating effects when tasks are highly joint and when the actors perceive a shared responsibility for these tasks. The mediating mechanism is *social unit attributions of emotion*. This is how individual feelings target groups and become collective feelings. The primary moderating condition for this to occur is a strong *sense of shared responsibility*. Repeated exchange, joint tasks, and perceived cohesion will generate collective emotions only if these antecedents also promote a sense of shared responsibility. The sense of shared responsibility is the central contingency determining whether a transactional or instrumental group tie evolves into a relational or expressive group tie and, by implication, whether individual emotions are transformed into collective emotions.

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Chapter 14

Collective emotional gatherings: their impact upon identity fusion, shared beliefs, and social integration

Dario Páez^a and Bernard Rimé^b

^aUniversity of the Basque Country and ^bUniversité de Louvain

In social life, collective gatherings constitute essential moments for generating or regenerating shared beliefs and emotions. Collective gatherings can take a variety of forms, including, among others, religious rituals, marriages, anniversaries, funerals, justice court sessions, festivals, concerts, sports events, or sociopolitical demonstrations. Collective gatherings generally involve emotionally salient vocal, visual, and kinesthetic manifestations taking formalized, stylized, and repetitive forms. Sosis (2003) suggested that participating with other people in such stylized and formalized behavior is proper to engender and maintain emotional affinity and cognitive consensus within a social group. Such a view of the emotional, social, and cognitive effects of collective gatherings is in full agreement with the classical model of social rituals proposed by Durkheim (1912).

Surprisingly, social psychologists have so far failed to develop empirical investigation of the impact that such mass events have upon socially shared beliefs and emotions as well as upon group behavior. Though scarce, exceptions to this exist. Some studies have focused on the relationship between demonstrations and social identity, but these studies were conducted primarily from a cognitive perspective, not examining emotional or behavioral processes (Drury & Reicher, 2000; Reicher, 2001). Positive psychologists such as Nakamura and Csikszentmihalyi (2005) have stressed the potential offered by collective rituals and shared experiences for optimal learning, welfare, and the development of cultural beliefs. In sociology, Collins (2004) developed an approach to rituals directly inspired by Durkheim's model. Closer to our own discipline, Moscovici (1988) also proposed a broad analysis of collective behaviors partly relying upon Durkheim's views. Moscovici stressed that celebrations of cults, upon which Durkheim's work focused, are far from being the only events gathering masses of people. Every affect-loaded event brings people together and elicits a process of emotional communion or perceived emotional synchrony, composed by emotional contagion and synchrony with others, that supports fusion of identity analogous to what Durkheim described in view of religious ceremonies. In such circumstances, people are seen "flocking together, exalting each other, and communicating intensely," in such a way that "the group is recreated and reasserted

with exceptional strength" (Moscovici, 1988, p. 76). Symbols are reactivated and worked through in depth. Collective representations arise in such circumstances because people create them together in a strong state of fervor stemming from the excitement of a reunion enlivened by shared songs, dances, and stage performances. We will examine how these gatherings provoke shared flow experiences accompanied with enhanced emotional feelings, experience of collective emotions, and fusion of identity.

Shared flow, fusion of identity, and collective emotions

Csikszentmihalyi, who introduced the concept of "optimal experience," maintained that such experiences are closely comparable to the collective effervescence that occurs during ritualized social situations (Csikszentmihalyi, 1990, p. 21), and he explicitly referred to Durkheim in this respect (Csikszentmihalyi, 1993, p. 41). According to Csikszentmihalyi, a state of optimal experience or "state of flow" develops when individuals act in a field they have mastered (e.g., work, sport, game, or artistic activities) and when three conditions are met in this activity: (1) clear goals, (2) immediate feedback, and (3) a challenge that the person's resources can face successfully. The experience of flow itself is characterized by: (1) a complete absorption in the experience, (2) by a feeling of having control in the activity, and (3) by the merger of awareness and action, the person acting in an automatic way, without thinking. Three major psychological consequences ensue from a state of flow: (1) an alteration of the temporal experience, (2) a highly intrinsically rewarding, autotelic, experience, and (3) a loss of self-awareness accompanied with a sense of merging with the environment. Empirical studies have largely confirmed the validity of these nine dimensions as well as their association with high-level performance and positive affect (Delle Fave, 2009; Jackson Kimiecik, Ford, & Marsh, 1998). Optimal experience occur when people reach a state of synchrony resulting from a temporary alignment of their cognitions (aim, purpose, or representation of what is to be achieved in the activity), their current action, and the external feedback they receive in the performance of this action. The accompanying subjective experience involves particularly powerful positive emotional states, a loss of consciousness of the self, a feeling that the self, the action, and the people around become fused, and an intense emotional experience of reward. An optimal experience thus builds up a state of self-transcendence, or of "transcendence" in the literal sense of this term. Indeed, psychological contours that usually separate the individual from the outside world tend to dissolve in such a way that the person is no longer separated from the world by the rigid boundaries of one's identity. According to Csikszentmihalyi, collective gatherings or rituals are affordances that a society offers to its members in order to allow them to meet optimal experiences under socially desirable forms (Csikszentmihalyi, 1990, p. 432). Flow and religious rituals are closely connected. Many optimal experiences occur in the context of rituals that seek to connect people with supernatural entities. Social rituals constitute a way to generate order in consciousness and to provide people with a source of enjoyment (Csikszentmihalyi, 1990, pp. 140–141; Nitz & Spickard, 1990). They are likely to cause flow because they involve clear goals and manageable rules, they allow adjusting the performance level to our capabilities, they

provide clear information on how we are doing, eliminate distraction, and make concentration possible (Csikszentmihalyi, 1993, pp. 13–14).

Despite these explicit references to collective gatherings, the state of flow has been investigated as an individual phenomenon. In several studies, however, respondents reported that their most powerful flow experience occurred in the context of a social situation and flow was more intense during shared activities than during individual ones (Walker, 2010). Walker's (2010) experiments show that flow experienced in a social situation elicited joyful experience at a higher level than solitary flow. In addition, this author argued that experiences of interactive and collective flow involve both a loss of consciousness of the "self" and an emotional communion with the group and the audience. As regards the loss of consciousness of the "self," it does not only imply a loss of one's own public image, but also the merge of the self or "I" with the "We." For instance, strong collective identity, and not only the loss of awareness of one's public personal image, characterizes sport team experiences (Jackson & Csikszentmihalyi, 2010). As regards emotional communion or perceived emotional synchrony, collective flow involves the transmission of non-verbal and verbal emotions and moods. This shared emotional arousal causes the creation of a common emotional climate.

In conclusion, we propose that, in collective emotional experiences, an attunement with the group develops from which shared emotions and identity fusion emerge. The remainder of this chapter is devoted to a review of empirical evidence that when collective behaviors are coordinated, participants manifest an increase of their sense of unity or fusion and a feeling of emotional communion or perceived emotional synchrony, based on synchronized behavior and sharing emotions by emotional contagion.

Coordinated collective behavior, fusion of identity, and emotional communion or perceived emotional synchrony

Humans are particularly well prepared to coordinate their movements with each other quickly and without much effort. Thus, individuals synchronize their movements when they walk side by side, or when they are immersed in a conversation (Konvalinka, Vuust, Roepstorff, & Frith, 2010). This capacity for mutual coordination allows humans to align their goals, intentions and actions with those of people around (Newman-Norlund, Noordzij, Meulenbroeck, & Bekkering, 2007; Sebanz, Bekkering, & Knoblich, 2006). Studies have found that the synchrony of movement has the effect of enhancing cooperation and prosocial orientation, and of favoring the emergence of a social unity between participants. In several studies (van Baaren, Holland, Kawakami, & van Knippenberg, 2004; van Baaren, Holland, Steenaert, & van Knippenberg, 2003), imitation was found to increase pro-social behavior. Participants who were imitated were more willing to provide help and more generous to others than participants who had not been imitated. Other studies have shown similar effects to result from behavioral synchronization. Wiltermuth and Heath (2009) found that compared with individuals placed in control conditions, those who acted in synchrony with others (while walking around campus in groups of three, listening to music in groups of three, or performing a task requiring some degree

of synchrony) showed more cooperation in economic exercises performed immediately afterwards. Similar effects were observed also from the simple synchronization resulting from singing together. These results suggest that actions that are synchronous with those of others, which are typical of collective gatherings, increase cooperation through strengthening the sense of unity and similarity with others. Social effects from synchrony of movement also occur in the eyes of spectators. Lakens and Stel (2011) found that when people move in synchrony, observers attribute them more feelings of mutual understanding and a higher level of entitativity (i.e., how far they constitute a single group, or “entity”) than when they move in asynchrony.

Overall, these data provide considerable support to the idea that the synchrony of movement expands the self and opens it to experiences of self-transcendence with feelings of unity and social fusion. Despite the significance of this topic, neither studies of flow nor studies of synchrony addressed these collective emotional processes. The classic model originally proposed by Durkheim offers a number of precious guidelines for the development of empirical work in this regard.

In his book *The Elementary Forms of Religious Life*, Durkheim (1912; Collins, 2004; Páez, Rimé, & Basabe, 2005) analyzed situations in which people gather in the presence of symbols representing their membership group and evoking beliefs that members of their group share. Durkheim stressed that in such collective situations, participants focus their attention on common objects or common themes, in a “special” temporal and physical frame. They act in unison in a coordinated manner by synchronizing their movements, their actions, as well as their vocal and verbal expressions. They thus participate in coordinated collective behavior that is loaded with powerful symbolic meanings. During the collective situation, participants abundantly develop together expressive gestures, movements, dance, speech, shouting, and/or singing. These collective manifestations generate an atmosphere of emotion and fervor. The emotions of the participants then echo and reinforce each other so that a climate of collective emotional fusion follows in which individual emotional feelings give way to shared emotional feelings. In addition, their convergence of actions and emotions reinforces a sense of similarity among participants. Everyone thus feels a sense of shared characteristics with other group members and experiences being in community with them with respect to these features. The feeling of similarity and the shared emotional state then combine to bring participants to evolve to a sense of group membership, and to experience the “we” in place of the “I.” For Durkheim, this state of self-transcendence and the generalized empathy it involves constitute the action levers of collective rituals. The feeling of group belonging is renewed and the social cohesion is strengthened. Shared beliefs, which usually vanish in the course of daily individual life, come back massively to the forefront of everyone’s consciousness. Participants can then return to their individual occupations. They will for some time be satiated by the group’s strength and the shared beliefs. A renewed confidence in the existence makes them able to face their daily life again with a sense of strength and meaning.

These propositions formulated by Durkheim (1912) in the context of his study of religious groups can be extended to many types of collective gatherings (Moscovici, 1988).

In the following, we will describe empirical studies that have focused on various types of community gatherings that support this model.

Collective emotional events and processes

In five studies, Páez, Rimé, Basabe, Włodarczyk, and Zumeta (2013) tested the view that collective gatherings reinforce positive affects, social integration, and social beliefs. The first study relied upon an important folk tradition that has continued since the Middle Ages in some Belgian towns. In over 80 cities, an annual celebration consists of 3-day lasting religious processions accompanied by “walkers.” Walkers are inhabitants of the town or village numbering several hundred and wearing historic military uniforms and armaments. They train all along the year, and at the time of an annual holiday, they escort the religious processions marching as military companies over long distances. For “walkers,” these rituals represent symbolic moments of high emotional impact. In line with the model of Durkheim, it was expected that compared with non-participants, participants in the folk marches would after walking manifest an enhanced level of social integration, stronger positive affects, and strengthened social beliefs compared to control non-walker respondents (Páez et al., 2013). Dependent measures taken from walkers and non-walkers comprised: (1) self-esteem (Rosenberg scale), (2) state anxiety (STAI scale of Spielberger, Gorsuch, & Lushene, 1970), (3) a measure of social integration (Richer and Vallerand, 1998), and finally, (4) core social beliefs (belief in a benevolent world and belief in a just world; Janoff-Bulman, 1989).

The authors also wanted to test specifically Durkheim’s hypothesis that the feeling of emotional fusion experienced in the course of the collective event was crucial to the production of the various predicted effects. Therefore, the various studies summarized hereafter included a rating scale allowing the walkers to specifically report the intensity of their experience of fusion during the collective event (emotional communion based on emotional contagion, e.g., “I bathed in an emotion shared by the entire group,” “I felt a kind of complicity between us”; and identity fusion, e.g., “I lost consciousness of myself,” “I felt like I was transported out of myself and became a part of the group,” “I had the feeling of being supported by other members of the group”). This “fusion” scale or perceived emotional synchrony had a one-dimensional structure and a high internal consistency. Ninety-three walkers completed the study forms within 48 hours that followed the 3 days of the annual festival. With the exception of the fusion scale, the same measures have been proposed to a large group of non-walkers respondents ($N = 324$) belonging to the same semi-rural and lower middle social class as the walkers. A total of 93 respondents paired for age and sex with respondent walkers were then randomly selected from this pool.

In line with our expectations, the comparison of non-walkers and walkers showed that the indicator of positive self-esteem was higher among the marchers than in the control group. For the state anxiety scale, the relaxation-confidence indicator also showed a significantly higher level among walkers. The comparison of walkers to control respondents for social integration revealed the average level of the former as significantly higher. Finally,

the group of marchers presented significantly higher average values for both the belief in the benevolence of the world and the belief in a just world. All the various hypotheses derived from Durkheim's model were thus supported by these data.

Walkers were then divided according to the median of the scores evaluating of the fusion scale. This allowed comparing 47 walkers for which the fusion experience was more intense with 46 walkers for whom this experience was less intense. In line with Durkheim's model, compared to the latter, walkers high in emotional communion or perceived emotional synchrony and identity fusion showed higher levels for self-esteem, relaxation and confidence, social integration, and core social beliefs.

A second study examined classical music concerts to which large numbers of musicians and singers took part (Páez et al., 2013). In the concert hall, immediately after a public concert, musicians and singers ($N = 70$) responded to the scale of emotional communion and identity fusion with regard to what they had experienced during the event. One week after the concert participants were contacted and responded to the questionnaires of anxiety, social integration, and beliefs. In this study, the results were somewhat weaker than those of the marchers' study where measures had been taken 48 hours after the marches. Effects for anxiety and social integration were not replicated in concert. But those for core social beliefs have emerged with the same force in both studies. The delay of 1 week might have played some role in this regard. Indeed, Durkheim specifically insisted that major religions had adopted a 1-week periodicity for their rituals because effects of the latter were likely to vanish within that delay. Thus, future studies should consider this question more closely.

A third study assessed similar variables in the context of sociopolitical demonstrations (Páez, Javaloy, Włodarczyk, Espelt, & Rimé, 2012). In Spain, in the spring of 2011, a major protest movement called "movement of May 15" in opposition to the economic and social situation sprang spontaneously across the country. Subjects answered a short version of the "fusion" scale. They were instructed to refer to their participation either at mass events related to the movement of May 15, or at some unrelated mass meeting which they attended recently. The second type of instruction was adopted in order to constitute a comparison group composed of respondents who also participated in mass meeting, but devoid of the intensive character taken by the May 15 movement. All participants also responded to a short scale of perceived social support whose purpose was to assess their level of social integration and to a questionnaire assessing their perception of the emotional climate in their social group (De Rivera & Páez, 2007). Finally, participants in the May 15 study also rated the extent to which they endorsed different values promoted by the movement of May 15 (solidarity, freedom, dignity, participation, social justice, and equity).

Data confirmed that the investigated movement increased emotional communion and collective identification more than other common group activities. In addition, the higher the intensity of emotional communion and fusion identity, the higher was the perceived social support. These results confirm the critical role that Durkheim attributed to the emotional fusion in the social integration effects resulting from collective movements.

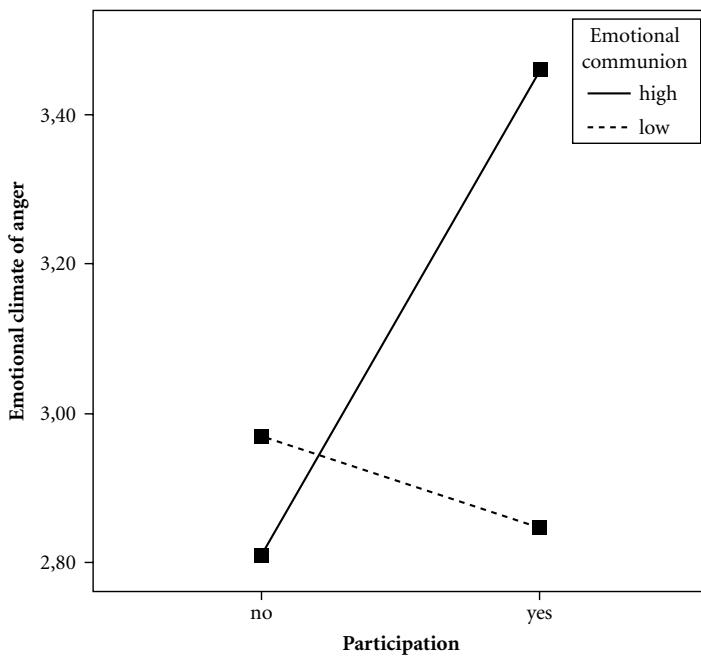


Fig. 14.1 Emotional climate of anger as a function of level of emotional communion and participation in collective mobilization or in another (control) activity.

These effects were manifested also in the perception emotional climate. Those who participated and experienced high level of emotional communion perceived more intense anger in the emotional climate compared with those who experienced a low level of communion, whereas no differences occurred between those who did not participate (see Fig. 14.1). This result is important. It reveals that participation in a protest social movement is associated not only with personal moral outrage, but also with the perception that others feel an emotion such as anger, which fuels mobilization. Moreover, in line with Durkheim's model, the experience of a high level of emotional communion and fusion of identity in demonstrations enhanced perceived collective emotions.

Finally, higher emotional communion or perceived emotional synchrony in the demonstrations correlates with higher agreement of values advocated by the movement of May 15, supporting the conclusion that social representations such as collective or cultural values are fed by the emotions produced in collective gatherings and are anchored in these emotions.

In the fourth study, Páez et al. (2013) addressed participation in religious rituals with the purpose to test whether such participation reinforced participants' feeling of self-transcendence and whether it was especially so in people who had experienced a high level of emotional communion and identity fusion. Spirituality involves a belief in a connection with others, humanity, and next generations (Emmons, 2006). The scale of self-transcendence proposed by Cloninger (1999) taps into the notion of spirituality as transcendence. Participants took part in a Catholic mass on a Sunday and responded to

this scale of self-transcendence on the preceding Thursday and again on the following Tuesday. Control participants also responded to the questionnaire at the same time but took part in a secular Sunday activity (e.g. family meals, playing cards with friends) and not in a religious event. Both groups also responded to the scale of emotional communion and identity fusion in the context of their respective social activity. Participants who attended the Catholic mass experienced an increase in their transcendence of the self whereas the participants of secular Sunday activity did not. In addition, a higher emotional experience of communion and identity fusion was associated with a more intense feeling of self-transcendence.

Due to limitations in their design, the findings of the studies described so far remain open to alternative explanations. Studies based on an experimental induction accompanied with appropriate controls would provide more convincing evidence. In a fifth study, Páez et al. (2013) randomly assigned social work students to participate in either what was presented as “an organized activity” or in a control condition. The organized activity involved writing slogans and drawing signs denouncing prejudice against immigrants, and thereafter going to the campus to demonstrate by exhibiting these slogans. One week before and after the event, participants from both conditions responded to questionnaires measuring: (1) public collective self-esteem (Luhtanen & Crocker, 1992), (2) identity fusion (Gómez et al., 2011), and (3) perceived similarity with the group. They also responded to questions assessing their emotional responses to immigration (mistrust, insecurity) and their prejudices toward immigrants.

Whereas the control group did not show change in collective self-esteem, identity fusion, or perceived similarity with the group, the experimental group showed a significant increase in each of these three variables “after” the participation in the demonstration. Furthermore, compared to the control group, the experimental group manifested a significant decrease in of the threat they perceived from immigration as well as in feelings of mistrust and insecurity with respect to migrants. This experimental study thus supported the major points of Durkheim’s theory. Indeed, an experimentally induced collective gathering triggered a process of emotional fusion and of group integration, an increased sense of confidence and a consolidation of all the various social representations related to the theme of the induced demonstration.

Social representations and emotional climate in collective gatherings

Results along the same lines have been found in longitudinal studies with participants who had experienced high-intensity collective events and took part in relevant collective demonstrations. One such study was conducted in the post-genocide context in Rwanda. It is estimated that over 800,000 people were killed during the genocide that took place in Rwanda between April and July 1994 in the framework of the long-standing conflict between ethnic “Hutus” and “Tutsis.” Approximately 130,000 people were detained on charges of involvement in the genocide. To manage this situation that the

ordinary courts could not cope with, a community system of conflict resolution called “Gacaca” was adapted as a Rwandan version of Truth and Reconciliation Commissions. Rimé, Kanyangara, Páez, and Yzerbyt (2011) conducted a longitudinal investigation on participants of the Gacaca process and of control respondents in a study that included both victims and prisoners. Half of each group participated in Gacaca and the other half responded to the same questionnaires at exactly the same time when Gacaca tribunals had not yet taken place in their area. All participants answered first before and then after the Gacaca trials to which participants in the “experimental” condition took part. Both data sets were collected within a period of 10 weeks. In total, 755 people participated in the study.

The results clearly confirmed that participation in a collective emotional event involves the reactivation of emotions: victims who participated in the Gacaca showed an increase in almost all negative emotions assessed whereas no change in emotional activation was found in control group of victims. To evaluate the effects of Gacaca on social identity and intergroup beliefs we measured: (1) identification with the ingroup, (2) positive stereotypes about the outgroup, and (3) the perceived homogeneity of the outgroup. The results showed that identification with the ingroup decreased among victims and among prisoners after the trial whereas their respective control groups showed a trend in the opposite direction. This suggests that the collective procedure involving emotional expression and recognition of past faults contributed to some weakening of “ethnic” identification and enhanced, at least to some degree, social integration.

Both for victims and perpetrators in the experimental groups, the results for positive stereotypes were particularly remarkable. They were initially at a lower level than those of control groups, probably because of the participants’ anticipation of confrontations in court. But they ended up being more positive than those of control respondents after participating in Gacaca. Finally, we found a significant decrease of perceived outgroup homogeneity in the experimental groups after participation in Gacaca, both among victims and prisoners. We observed no such change for victims and prisoners in the control groups. Viewing the outgroup as homogeneous is to deny their members any individual or personal characteristics and to reduce them to simple exemplars of their category, which leads to prejudice and perpetuates hostile social relationships. In short, participating in the Gacaca trial has elicited positive changes of social representations. In addition, these changes were associated with an increased emotional activation of participants. The mediation analyses and regressions conducted on these data showed a partial mediation effect in support of Durkheim’s model. Such results are important because they suggest that the emotional arousal occurring in collective situations, even if negative, serves to support changes in social representations.

Participation in transitional justice procedures such as Gacaca in Rwanda also affected collective emotions. Before Gacaca, participating victims rated positive emotional climate as higher than their controls, probably because of the hopes and positive expectations in the period preceding the trial. Their positive perception of the climate decreased after the trial but remained higher than among victims in the control group, suggesting that

their hopes did not entirely vanish with the trial. Prisoners, for their part, perceived the emotional climate as less positive than their controls before Gacaca, probably because they expected to be punished. After Gacaca, the perception of positive emotions in the social climate was markedly increased among perpetrators who participated, confirming that the collective process increased social integration for this group. These asymmetrical effects for victims and perpetrators are consistent with those of other studies which found that active perpetrators showed a more positive attitude toward transitional rituals, especially when they did not receive hard punishment—as occurred in the Gacaca trials (Martin-Beristain, Páez, Rimé, & Kanyangara, 2010).

In the study just described, participation in the collective gathering caused an increase in positive collective emotions only in perpetrators' group. Yet, we conducted another longitudinal study that rather than a collective event involving two opposed groups, addressed a collective mobilization against an opposing group. This study confirmed that participation in collective gatherings increases positive collective emotions. In Spain, on March 11, 2004, several terrorist bombings simultaneously struck commuter trains in Madrid and killed 191 people. These events triggered scenes of protest and social and political agitation in cities all over the country. Data were collected from a sample of 661 adults (university students and their families) of five Spanish regions. Participants completed questionnaires 1, 3, and 8 weeks after the attacks. At the first measurement time, 1 week after the events, we assessed the level of respondents' participation in demonstrations over the previous days. Whereas 22% of the respondents reported not having participated in demonstrations, 11% reported having attended sometimes, 15% many times, and 52% reported taking part in every possible demonstration. In line with the model of Durkheim, the study examined the extent to which participation in collective mass movements had resulted in changes in social perceptions and emotional climate (Páez, Basabe, Gonzalez, & Ubillos, 2007; Rimé, Páez, Basabe, & Martinez, 2009). As an indicator of collective emotions, perceived emotional climate was measured during the first week and again at the eighth week following the events using the Emotional Climate scale (Páez, Ruiz, Gailly, Kornblit, & Wiesenfeld, 1997). Participants indicated the extent to which they endorsed statements regarding their perception of social climate in their country ("The social climate is marked by hope," "not at all"—"very much"). Social representations were assessed using a measure of post-traumatic growth addressing the intrapersonal benefits (perceived changes in the appreciation of life), interpersonal benefits (perceived increase in social cohesion), and collective benefits (augmentation of political participation and commitment; strengthening of awareness of human rights violations) that could have resulted from the confrontation to such a collective drama (Vazquez & Páez, 2011). Respondents completed this measure in the third week following the events. Finally, they also completed, 1 week and 3 weeks after the events, a scale assessing their emotional arousal in response to these events.

In accordance with Durkheim's model, the more people participated in the demonstrations, the higher was their level of emotional arousal. Furthermore, it was confirmed that both emotions felt at the personal level and perceived in the social environment during

the first week were associated with an enhancement of the participants' social integration and a strengthening of their social representations 3 weeks after the events. Level of post-traumatic growth assessed 3 weeks later was predicted by first week measures of: (1) negative emotions (Helgelson et al., 2006), (2) personal emotions of pride and joy which are generally related to altruistic behaviors and solidarity reactions, and (3) perception of a positive emotional climate in the. The latter finding suggests a collective resilience process in which positive collective emotions fuel positive changes in social representations about the national group (see Páez et al., 2007).

Participation in demonstrations was also associated with stronger beliefs in collective post-traumatic growth. This effect on post-traumatic growth was evidenced as the main mediator of the relationship between participation in demonstrations and the perception of a positive emotional climate. As for the emotional climate perceived in the society 8 weeks after the bombing, there was a significant increase for the protesters, whereas for non-demonstrators there was no difference. Participation in demonstrations was thus associated with a positive change in the perception of social climate. These results fit well with the Durkheimian functionalist vision of collective behavior: participation in mass demonstrations led to the development of a societal post-traumatic growth and these social representations fed a climate of hope and collective solidarity.

Conclusion

The various studies described in this chapter lead us to conclude that the model proposed by Durkheim is largely supported. Collective gatherings bring about an enhancement of emotions, of emotional communion and fusion of identity, of social integration and of positive affectivity, of social representations and of emotional climate or collective emotions. Specifically, studies on the state of flow showed that collective gatherings can provoke shared optimal experiences. The latter are characterized by a fusion of identity, by a transmutation of the "Self" into the "We," by more intense emotions and by the experience of collective emotions. Studies of imitation and coordinated activities typical of collective gatherings—gestures, songs, and music—confirmed that such behaviors reinforce the fusion of personal identity with the collective one. Studies on participation in marches, concerts, and demonstrations confirmed that such collective gatherings cause an enhancement in social integration and in positive affectivity as well as a positive reinforcement of social representations. The emotional experience of communion and identity fusion plays a central role in explaining such effects. The described studies also confirmed that collective gatherings increase emotional arousal. Even negative emotions experienced during group gatherings predicted the improvement of social representations. Collective positive emotions that support a process of societal resilience reinforced positive affectivity, altruistic behavior, and belief of collective post-traumatic growth (Bar-Tal, Halperin, & de Rivera, 2007). Finally, group gatherings, such as rituals of transitional justice or sociopolitical demonstrations, not only improve social integration and positive affectivity, but also strengthen the

emotional climate or dominant emotions perceived in the social environment. In turn, the strengthening of social representations plays a mediating role between the participation in collective gatherings and the improvement of the emotional climate. Globally, evidence supports Durkheim's ideas that emotional communion is at the heart of social rituals. Collective gatherings reinforce affects, social integration, and social beliefs, and these effects are stronger in participants experiencing higher emotional communion and fusion of identity with the group.

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Chapter 15

Emotion and the formation of social identities

Joseph de Rivera

Clark University

This chapter examines how emotion is involved in the formation of both personal and collective identity. After considering the essential role of emotion in the political and social construction of collective entities it takes a historical look at the role emotion has played in the formation and governance of nation-states and how it is implicated in the problems confronting our current nation-state system. It then examines the conflicting needs that are involved when persons identify with collective entities. After considering these needs, I will consider the concept of personal identity and argue that the current way of distinguishing social from individual identity is misleading and prevents us from understanding the human condition. After proposing a different way of conceptualizing personal identity and its emotional dynamics I will use the new conceptualization to consider what sort of society might be able to meet human emotional needs and how it may be possible to form the social identity needed to unify a global society.

Emotional experience and societal integration

Although early human communities were based on kinship and marriage, even these “natural” communities appear to have been intended, and held together by emotional bonds. As these communities grew too large to afford face-to-face contact they became expanded into social entities that were, in an important sense, artificially constructed. These include tribal formations, nationalities, religions, and nation-states. Although any ethnicity has a basis in local, particular, ways of speaking, dressing, eating, etc., Fishman (1968) asserts that a nationality (as a sociocultural entity) only comes about when these ways come to be *ideologized* so they are viewed as an expression of a common history, values, and mission. For such constructed entities to be viable a sense of unity and a feeling of belonging must be intended and cultivated. In early societies this sense of unity was accomplished by the assumption of a common ancestor, and lines of descent, ancestor worship, or totem ceremonials were used to create the feeling of oneness. Denison (1928) argues that the imagining of a common ancestor must be presented within an emotional context. He notes that a logical demonstration of a statement’s truth may not transform it into a belief, “while an emotional dramatization of a statement that is not true

may create such a sense of its reality in the minds of the people that no logical proof will convince them of its falsity" (Denison, 1928, p. 15). That is, the reality of a narrative of a people's collective identity must be *felt* and, in a sense, may be a believed-in imagining (de Rivera & Sarbin, 1998).

Although emotions are transitory, societies create a background of customs that constitute an emotional culture. Of prime importance are a society's religious rituals and customs which intentionally develop and maintain emotions that will foster group unity. Durkheim (1915/1947) gives many examples of how rituals are used to periodically reaffirm the unity of the social group. These rituals often involve a shared story in which people are emotionally involved and maintain a sentiment of pride, confidence, and veneration. Rituals with shared emotion are also used to reaffirm unity when it might be shattered by gain or loss. Thus, Durkheim (1915/1947, p. 399) notes, "When someone dies, the family group to which he belongs feels itself lessened and, it reacts against the loss, it assembles. . . collective sentiments are renewed which then lead men to seek one another and to assemble together."

Architecture, sculpture, painting, music, dance, and film support a society's emotional culture and may cultivate emotions that maintain group unity. Further, customs that are not aimed at emotions nevertheless involve them in reinforcing a collective identity. Customary apparel, bodily marks, and language, evoke mutual sympathy and security, while strangers arouse suspicion, fear, and dislike. Failure to dress appropriately by a member is viewed with contempt so that one is ashamed to do so. Manners express reverence or respect that promote group unity and may convey friendship, joy or sorrow and make sympathetic relations possible. Laws, probably beginning as taboos placed around what is regarded as sacred, evoke fear, disgust, and horror, and are later extended to anti-social behavior. The horror cultivated by ceremonials surrounding taboos may be related to the development of guilt and its usefulness in binding persons to group mores. In fact all of the "recognition" emotions that may be used in building and maintaining the social self, both other-directed emotions such as admiration, respect, contempt, horror, and the corresponding self-directed emotions of pride, dignity, shame, and guilt (see de Rivera, 1977), are used to maintain the collective identity of the group.

Vertical and horizontal integrations

While small societies may be united by ancestor worship or totem, Denison (1928) points out that the development of more complex societies with political state structures require the unification of very diverse groups with quite different languages and customs. He argues that different societies are unified by different types of political structures which require different types of emotional cultures. Hence, society and civilization are dependent on systems that cultivate appropriate emotions, and when the ruling elite are unwilling or unable to support the requisite emotional system the society disintegrates.

Often unification was accomplished by what Denison terms a vertical integration. That is, quite different peoples, with no common collective emotions, were ruled by a central

authority figure with whom they identified. Often, as in the development of Egyptian civilization, local Gods were assimilated and identified with the Gods of the ruler so that there could be a common focus of worship. By identifying the ruler with this God, the ruler himself could be worshipped and the unity of the society insured. The power of the sacred was congruent with the power of the ruler. By participating in that power good fortune was ensured, evil warded off, and the unity of the society was maintained. However, Denison notes, this requires the constant cultivation of emotions which minimize egoism such as reverence, devotion, awe, and fear, emotions which are used to maintain an identification with an authority other than the self and which can be used in the vertical integration that maintains the unity of the society in a basically patriarchal arrangement.

Denison contrasts this with a horizontal or *fratriarchal* arrangement in which a group is unified by the development of a common will or purpose. Rather than identifying with a sacred authority, the members of a group may be fused by assemblies oriented to enthusiasm or rage. Rather than minimizing the ego, by encouraging obedience and leading persons to identify the self with a God-like authority, the ego may be maximized by encouraging competition and the identification of mate, home, or leader as part of the self. By being involved in the choosing of a leader, to some extent people are able to identify the leader with the self and to feel they are acting through him. And when common plundering expeditions or enemies were involved it was easy to maintain the group unity. By establishing common agreement, a common will united the group. For a society to have a horizontal unity, a different set of emotions has to be cultivated. Emotions that involve egoism such as pride, enthusiasm, and anger, but also a sense of responsibility, a respect for others as equals, and a sense of honor that binds persons to common agreements even when agreements cannot be enforced by the fear of authority.

Although horizontal unification was adequate for a society that was small enough to permit assemblies that could meet together, it was difficult to use horizontal alignments to unify larger societies. In vertical integrations it was easy for a central authority to send a representative to reflect that authority to a local group. Everyone could identify with the authority through his representative. However, early horizontal arrangements found it difficult to unify groups. The representatives elected by the Greek states were able to achieve some common decisions. However, when these representatives returned to their own groups they were often unable to persuade their constituents to abide by the decisions reached by the common assembly. Their constituents were unable to feel identified with the central assembly and it was not until the American Federalists used a constitution as the central authority that a largely fraternal system became the basis for national unity.

Emotions and the nation-state

Although we now take the nation-state for granted, such an entity was not developed until the seventeenth century. Until then, persons identified themselves by referring to their city, region, guild, caste, or thought in terms of a people or in terms of imperial power. Many factors contributed to the development. Kohn (1965/1982) cites the reformation's

demolition of the hope for a universal church, and certainly most historians view a need to control religious warfare as motivating the Peace of Westphalia in 1648 and the agreement to create the system of independent states in which we live today. However, Gellner (1983) argues that the form of social organization that evolved was required by industrialization and the demand for an efficient state organized about a homogeneous literate citizenry. Certainly it was the ideology of nationalism—the idea that a people (nation) should have their own state—that contributed to the development of the nation-state form and the idea that the state as a political entity should represent the people under its jurisdiction.

Emotions and the formation of nation-states

To command the loyalty needed for state governance it was necessary for people to be able to identify with the state. Kelman (1997) has proposed that modern nations are able to attract identification because they provide an entity that is small enough to meet the need of defending what is most central to the self (family and home), and large enough to satisfy the need for self-transcendence (provided by identification with a group that goes beyond the self in space and time). However, for an abstraction such as the nation-state to meet a need for transcendence it must be imagined in historical time. Anderson (1991) suggests that this required a complex change in consciousness. He points out that past peoples imagined their connections with others as particular sets of ties—real or imagined networks of kinship or clients—rather than a connection with an imagined abstraction such as a nation-state. To some extent this particularity was maintained in the classic structure of empires described by Denison. Each of these was imagined as a universal, divinely ordained, hierarchical dynasty. In the past, these were taken for granted as nationality is today.

As Anderson (1991) points out, each of these empires was initially imagined through the medium of a world of non-arbitrary signs, sacred text written in classic Latin, Pali, Arabic, Sanskrit, or Chinese. The elites who ministered this reality were positioned near the top of a centripetal hierarchy mediating between heaven and earth. The coherence of these communities was weakened as explorations widened conceptions of what was sacred and print led to a multiplicity of vernacular languages replacing scared texts. However, until the seventeenth century legitimacy derived from divinity rather than populations and these dynasties existed in a time that was conceived as eternal rather than historical. Hence, the change in how community was imagined involved a change in how time was experienced. Rather than counterpoising time with a sacred eternity people had to begin conceiving of time as a sort of empty space in which causal chains of events stretch from past to future. This enabled them (and us) to imagine an abstract nation that exists in historical time and could provide a sort of self-transcendence.

Although, after the treaty of Westphalia, France might be considered a nation-state it was vertically organized about an aristocracy and traditional classes. Provinces and cities had their own traditional laws, weights, and measures and, often separate languages. The popular revolution in 1789 created a republic with a horizontal organization and the needed changes in identification involved immense public assemblies and extreme, spontaneous,

collective emotions. It is difficult to imagine the extent of the emotional arousal and the rituals, which included mothers offering their children to the new nation. Referring to one such assembly Durkheim (1915/1947) wrote, "In the midst of an assembly animated by a common passion, we become susceptible of acts and sentiments of which we were incapable when reduced to our own forces" (p. 209). He notes, "things purely laical by nature were transformed by public opinion into sacred things: these were the Fatherland, Liberty, Reason" (p. 214). Comparing the sentiments of the revolution with the development of aboriginal society he says that it, "allows us to catch glimpses of how the clan was able to awaken within its members the idea that outside of them there exist forces which dominate them and at the same time sustain them, that is to say in fine, religious forces" (p. 214).

The change from vertical to horizontal organization was not without costs. Powerful collective forces cannot be sustained by emotion alone and the leaders of the new French state maintained the unity that was needed by developing a common education, creating patriotic songs, planning national festivals and prohibiting local languages. The 1789 Declaration of the Rights of Man and Citizen established the basis for a new order of free individuals protected by law. However, this ideal had to contend with the development of an urban economy that led people from traditional village life to the unorganized society of the city. Kohn (1982) notes, "Lacking the stability of the traditional society, the masses were more easily swayed by utopian hopes and stirred by unreasonable fears" (p. 24). Hence, it is not surprising that the citizen identity that was encouraged stressed the need for people to be in complete union with the nation-state. Anyone who opposed the collective will (as proclaimed by the leadership) was accused of treason. Later we shall see how the dominance of fear may have led to the conformity of individuals who had become parts of a national whole.

Although France became a republic as a consequence of the emotional identification and political leadership that united its peoples, its political structure was based on the aristocratic state bureaucracy that had already been developed in the French kingdom. Some nation-states have had a different sort of formation and Smith (1994) suggests different types that are characterized by differences in the sort of cores about which the nation-state was created. Some, such as France, England, and Spain, formed around "lateral" aristocratic cores such as the Norman, Persian, Philistine, Magyar, Frankish, and Castilian ruling circles. These groups developed professional bureaucracies that could be used to incorporate other strata and regions into the state, successfully mobilize the population for war, and aid in the formation of myths of common descent and sense of common culture so that the state formed a basis for what became the modern nation. Although such lateral aristocratic communities often ruled over a wide breadth of territory they lacked the depth of "vertical" *ethnies* that involved more social strata. The latter, peoples such as the Armenians, Basques, Britons, Czechs, Greeks, Jews, Serbs, and Sikhs, are characterized by ethnic boundaries that are more marked and exclusive, and demotic unity was more achieved by organized religion. In these cases the transformation into a modern nation-state had to be led by a secularizing intelligentsia who attempted to create new myth systems to unite a segment of the community about a national consciousness

that the state could control as it formed about the people. Note that when a nation is formed around the more rational bureaucratic core of a lateral group, it might be easier to achieve the more cosmopolitan type of horizontal unity described by Denison. In the case of vertical ethnies, leaders might find it more difficult to include outside groups and might make more use of sacred feelings in order to build on the old vertical lines of unity.

Emotional problems inherent in the nation-state system

Nation-states are entities that were created in an attempt to manage civil conflict. They attempt to combine the emotional attachment to a nation (people) with a state apparatus that attempts to monopolize power so it can dominate subordinate ethnic, regional, religious, and political groups. However, nation-states have two fundamental problems that contribute to difficulties in governance. First, they are fragile affairs that are prone to identity conflicts among different internal groups with their own emotional attachments. Nation-states attempt to weld the natural attachments of nationality to the bureaucratic apparatus of the state, but very few “pure” nation-states exist. In 1971, only 12 of the 132 nation-states that existed at the time were really ethnically homogeneous and in 39 the largest national group within the state had less than half of the population (Connor, 1974/1994). When there is no dominant group, the competition for power leads to identity conflicts that are often extremely destructive. In order to unify (and in times of stress) nation-states rely on patriotism, and Bar-Tal (1997) has described how even caring patriotism is prone to becoming monopolized by political leaders who exclude segments of the population.

Second, nation-states, like all groups, favor their own and the current system of nation-states lacks a system of global governance that can ensure the adjudication of fair economic arrangements among nations. The competition between nation states still threatens war and the struggle among those with veto power within the United Nations Security Council is preventing the development of the sort of governance needed to build a culture of peace (de Rivera, 2009) and effectively tackle problems such as global warming and the threat of nuclear war.

Perhaps we need a global social system that would rest on the identification with both smaller and larger units than nation-states. Certainly any world government will require more human unity than currently exists and our historical review suggests that such unity will require strong collective emotional celebrations similar to those needed to create tribes and nation-states. Humans appear to be at a point in history where new social entities may be created. To understand the dynamics that will be involved, and the possibilities that exist we must consider the underlying human needs that are met by different societal arrangements.

Dialectics of the human heart

Individualism and collectivism

Denison's concern with the political unity of complex societies and the emotional cultures necessary for *fratriarchial* as opposed to patriarchal societies may be compared with

Durkheim's concern with how a society is socially integrated and the emotions of individualistic as opposed to collectivist societies. These issues are addressed in his classic investigation into the causes of suicide (Durkheim, 1897/1951). Durkheim distinguishes egoistic from altruistic suicide and argues that societies with high rates of the latter are collectivist in the sense that the self is identified with the family or other group in the manner described by Hsu (1971) and by Roland (1988). The person *is* a part of a group rather than an individual. And, at least in the description of mystical altruistic suicide, what we might term the ideal or the sacred is considered to be real—much more real than what we might call the actual self. The attitude of reverence and devotion that is involved suggests an identification of the self with something greater than the self and appears similar to the emotional stance that Denison describes as crucial in societies that are unified by vertical organizations involving an identification with authority.

By contrast, in the societies in which egoistic (and often anomic) suicide occur, the self is identified as an individual agent, and everything important is identified as part of the self. Indeed William James (1890/1950) defined the self as “everything that may be called me or mine.” And it is these societies that Denison describes as more horizontally integrated by emotions such as honor at keeping agreements, respect for equals, and brotherly love. The contrast between individualistic and collectivist societies is inherent in the ubiquitous contrast between individual and group, and different motives for individual and group welfare.

Most Western theorists assume that humans have both a need for individualistic agency and a longing to be part of something larger than the individual self. As a student of groups, Benne (1988) refers to the dialectics of the heart—the beat of the desire to be alone and free, then the fear of the aloneness and a desire to be in relation to others until one feels burdened and desires again to be alone. As motivational theorists, Deci and Ryan (1985) refer to the simultaneous need for independence and relatedness, postulating that intrinsic motivation can occur only in circumstances where both of these needs can be met. As a moral theorist, Haidt (2012) suggests that we are selfish primates who long to be part of something bigger and better. And as a personality theorist, Angyal (1941) refers to two fundamental developmental trends: autonomy and *homonomy*. Autonomy is individualistic, assertive, aiming at the achievement, conquest and organization of the chaotic elements of the environment, coordination with the self as governing center, and satisfied by a sense of cravings for possession, domination, mastery, and subordinating outside factors to the self. *Homonomy* is collectivist, with goals of sharing, participating, union, identifying with super-individual wholes, fitting into the environment, longing for union, belonging, sharing and participating in meaningful wholes of which the self is felt to be a part.

Many theorists emphasize the inherent worth of both emotional impulses. Angyal states, “merging into a social group does not mean the loss of one’s personality, but means its broadening beyond purely individualistic limits” (Angyal, 1941, p. 174). Likewise, Gamson (1991) sees social movements as providing a way for participants to enlarge their personal identity by affording an opportunity to include the collective identity as part

of themselves. However, others have noted how there may be more than an apparent antagonism between the two tendencies. Thus, Fromm (1941) posits that fascism involves becoming part of a movement as a way to escape from autonomous freedom and responsibility. And Hoffer (1951) sees all mass movements as having the same form and characterizes that form as not only involving collective action and self-sacrifice, but as breeding fanaticism, enthusiasm, fervent hope, hatred, and intolerance, and appealing to persons who long to be rid of an unwanted self. It must be admitted that to the extent that a movement identity creates boundaries between *us* and *them* there is the same opportunity for rigidity, fanaticism, and intolerance that is inherent in nationalism.

It should be noted that although Hoffer and Gamson are viewing social movements from different perspectives, both are speaking as autonomous individualists. Hoffer sees participants in collective movements as escaping from freedom by submission, whereas Gamson sees them as exercising their individual responsibility by commitment. However, when Durkheim discusses society he is speaking from the perspective of *homonomy*. Although a society may not provide sufficient individuation and although its members may be susceptible to group passions and suggestions that lead them away from reasoned judgments about self-interest, it is the collective that provides the confidence and security that persons need if they are to act. I believe Durkheim views participation as involving surrender as well as commitment, and would see the ground for totalitarian movements as furnished by the disintegration of society rather than by an unwanted self.

For Durkheim, not only is there a real collective identity, but this identity necessarily involves religious ideals (or their nationalistic equivalent) and persons obtain real strength by practicing the religion of the society. Durkheim (1915/1947) observes, “The believer who has communicated with his god is not merely a man who sees new truths of which the unbeliever is ignorant; he is a man who is *stronger*” (p. 416). He sees religion as, “destined to survive all the particular symbols in which religious thought has successively enveloped itself. . . if we find a little difficulty today in imagining what the feasts and ceremonies of the future could consist in, it is because we are going through a stage of transition and moral mediocrity. . . But this state of incertitude and confused agitation cannot last forever” (p. 427).

How then should we conceive of the relationship between the individual and the group, between autonomy and collectivist *homonomy*? Durkheim’s opposition of egoistic and altruistic societies helps us contrast the extreme opposites of zero collective concern and zero individuation. However, it is misleading by implying that the ideal society is somehow in the middle of individualism and collectivism. Too “individualistic” really means egoistic self-concern, insufficient *homonomy* and collectivity rather than being too much of an individual. Likewise, a collective being too strong really means excessive pressure for conformity rather than too much community. A lack of collectivity is the ground for the insecurity that leads to a desire to escape from freedom and responsibility. The ideal society, as Becker (1968) affirms, is really one where there is a maximum of both individuality and community.

Unfortunately, our current conceptualizations of identity contrast individual and group identity in ways that make such an ideal seem unattainable. I believe these conceptualizations are inaccurate and prevent us from correctly characterizing current society and imagining how it may be possible to construct a society that could meet both autonomous and *homonomous* needs. Our current ideas about identity obscure how the uniqueness of individuals may be involved in, rather than opposed to, the social identity of group membership, prevent us from describing important aspects of society, and lead us away from research that might help us achieve the society needed today. How then might we reconceptualize our identity as human beings?

Personal identity

Social identity theory

Social identity theory contrasts a “social identity,” characterized by those aspects of the individual’s self-concept based on his or her social group memberships, with a “personal self” characterized by idiosyncratic traits based on differences between the self and other in-group members (Turner, 1985). This formulation has the advantage of calling attention to how group behavior may entail a shift away from the perception of the self and other as unique individuals to the perception of the self and other as group members, a shift from a personal to a group identity. It calls our attention to how easily social categorization can lead to the formation of a social group in the sense that *ersatz* members evaluate their own group more favorably and discriminate in their favor. It helps us see how the creation of a group boundary (even when it is arbitrarily imposed) leads persons to favor, and give more weight to the desires of those whom they perceive as ingroup members. It has led to an extensive body of research showing that we can easily be led to categorize ourselves as members of a group and that when this group membership is made salient we discriminate in favor of our own. It helps us understand how we may attribute different motivational processes to persons when we perceive them as group members whose behavior is perceived as due to the stable characteristic of their group membership rather than to situational determinants (Horwitz & Rabbie, 1982).

However, conceiving of groups as cognitive or perceptual units and conceptualizing social identity as based on identification with these cognitive units leads us to overlook some important points. First, the groups with which people identify are not simply cognitive groupings. Even the “minimal groups” created by the arbitrary names assigned by an experimenter appear to occur when there is a possibility of differential rewards. Prototypical groups such as the family and early human bands involve affective bonding, and the larger groups to which people belong involve constructions that enable people to identify themselves with the group. Thus, when abstract social entities are involved in identity conflicts, Eriksen (2001) notes that the entities with which persons identify are not arbitrary categories but embedded in local networks that are based on kinship and informal interaction. He shows that the foundation of social identities must be sought in

personal identity and any appeals to primordial collective identity must mobilize emotions rooted in the intimacy of kinship.

Second, it is important to distinguish among the different sorts of social entities with which we may identify. Much of our modern society appears composed of entities, such as corporations and nation-states, which may be personified and treated as legal persons (even to the extent of having human rights) when they are really social entities that are not at all personal.

Finally, although this is not Turner's intention, the contrast between individual and social identity has the implication that individuals themselves are not social beings. The conception of social identity as an aspect of self-concept based on group membership is sometimes conflated with William James' (1890/1950) concept of the social self. However, when James speaks of a social self, he is not referring to a self-concept based on the groups with which a person may identify, but to how one aspect of the self is constituted by how persons believe they are regarded by others (and particularly by one who is loved). If we distinguish a personal identity that refers to individual personal characteristics from a social identity that consists of the groups to which we identify, we may miss the very essence of personal identity. This may lie in our relationships with others rather than in either our individual characteristics or the groups to which we belong. Such a conception of personal identity has been advanced by the Scottish philosopher, John Macmurray (1961).

The nature of personal identity

Macmurray (1961) asserts that persons are agents who are necessarily in personal relationships with others. Thus, they are fundamentally interdependent members of a community. In accordance with this view we note that all societies are based on individuals who are relating to one another. Fiske (1991) argues that we find four basic relationships in all societies: communal sharing, authority and hierarchy, market pricing, and equality exchange, and he contrasts them all with asocial anarchy. However, in Fiske's account it is unclear when these relationships are *personal* in the sense of there being an emotional relation of *caring* or *fear* between the persons who are involved. When caring is involved there is an awareness of the other as a person that is not based only on self-interest, such as the desire for power, prestige, and achievement, nor on family or group obligations, but on a genuine interest in the other.

When we examine personal relationships Macmurray claims we always find an emotional relationship with two motivational strands: a caring for the other and a concern for one's self. At any particular time in any particular relationship the concern for oneself may be subordinate to the caring for the other, or it may become dominant and mask the caring that is latently present. The concern for self becomes dominant whenever a person is hurt by another's betrayal, lack of interest or consideration. When this occurs, a person feels uncared for and is faced with the choice of attributing the lack of caring to the other or the self. In the former case, the other cannot be depended upon and one must take the individualistic path of looking out for himself/herself. In

the latter case, the self has not been good enough to merit the care and must decide to be good and conform to what is expected so they will be taken care of, a path that enables the common good required by collectivity. This choice between individualism and conformity may be said to characterize a particular moment, a personality, a gender, or an entire society, and Macmurray carefully describes its political and moral consequences. For example, when a society emphasizes an individualistic path it inevitably involves competition and will develop a state system which will need to manage the competition and develop a political theory that will be Hobbesian in nature. Other societies will emphasize a collectivist path, which will inevitably involve conformity. Such societies will include many more normative obligations. Their morality entails manners and group obligations rather than contracts and individual ideas of duty. Japanese society provides an excellent example.

Macmurray argues (see de Rivera, 1989) that either choice involves a splitting of an original unity. As soon as concern for the self becomes dominant, the person is separated from the mutuality inherent in friendship. The person or society who chooses the individualistic path will feel that he or she must primarily look out for themselves and that pragmatic rationalism and individual feelings are real as opposed to collectivist ideals. The person or society who chooses the conformist path will feel that he or she must ignore personal feelings, that it is the collective ideal that is actually real and that individual desires and feelings have little substance. In philosophical thought the mind is split from the body, reason split from emotion, the person reduced to being either a self without real individuality or a part of a whole. The worth of a person is determined by individual success or by value to society. The individual is split from the collective so that one either has the "right" to commit suicide or the "duty" to do so as though one had no inherent worth.

The shift in identity that occurs when fear becomes dominant is also reflected in the changes in group identification. Thus, in his examination of the transformations that occur proceeding Hindu-Moslem riots, Kakar (2000) notes how the "We ness" sense of belonging to a community of believers shifts to a "We are" identity based on antagonism to the rival group. He observes that the latter identity is charged with aggression and persecution and combines a feeling of dread and danger with "exhilaration at the transcendence of individual boundaries, the feelings of closeness and belonging to an entity beyond one's self" (p. 889). Noting that the riots are preceded with rumors of danger to the body from substances normally considered benevolent, Kakar suggests that the changes in internal state are analogous to the shift involved from the basic trust in a good mother to an non-empathetic mother who must be propitiated, and the difference between the two sorts of large group identifications may be related to Volkman's (1999) detailed description of the manner in which individuals form large group identities from early personal relationships.

In a related vein, the manner in which persons are attached to their community (Kelman, 1997) appears to be related to the difference between the positive attachments involved in patriotism and the aggrandizement of self in nationalism (Bar-Tal & Staub, 1997). And measures of identification can now distinguish between the degree to which

persons view the self as a part of a group, accord it deference, view it as superior, and desire to benefit it, and these measures can predict whether persons experience guilt or defend against guilt when they are exposed to information about their group's atrocities (Roccas, Sagiv, Schwartz, Halevy, & Eidelson, 2008).

From Macmurray's perspective although persons are both individuals and members of groups, they are neither fundamentally individuals nor parts of a collective. They are interdependent agents who are in relation to other persons. Thus, their personhood is grounded in a community of personal relations that may be characterized by a relative dominance of caring or fear. Their uniqueness and self-realization, their individuality, comes when their concern for self is subordinated to their caring for what is other than themselves (whether this is another person, a group, or a creative work). To risk this caring they need to feel cared for by others in their community. Hence, as Hearn (1997) argues, personal well-being depends on the integrity of community. Such a conceptualization suggests that we may want to consider the extent to which a society is based on community rather than simply markets and state governance, on communities of people who care for one another rather than associations of people with common concerns or a large-group identity.

The dominance of either the individual or group self is motivated by the fear for the self that occurs when persons think they cannot rely on the concern of others. In a related vein, when "social identity" becomes salient it may motivate interest rather than hostility. As Brewer (2001) notes, ingroup identity does not require outgroup hate. However, one's membership in a community is part of the self and when the self is threatened self-concern will dominate. If one's identification as a group member becomes dominant, then insidious comparison, hostility, and fear for one's group will manifest and reveal a fear that one is not cared for as a person. Such threat is not inherent in group comparison but frequently occurs when one's group is in competition for scarce resources and fear is awakened by outside group hostility. It is exacerbated as soon as others are viewed as group members rather than fellow persons. It should be noted that a person's fear may also stem from the lack of self-worth occasioned by lack of caring from other community members. In such a case the person may attempt to gain self-worth by seeing his or her own group as superior to others.

Forming the social identity required by contemporary society

The current view of social identity leads us to focus on the emotions experienced when we think of ourselves in terms of various sorts of group membership. This distracts us from the emotional state of our community and the sort of collective emotions involved in emotional climates (de Rivera, 1992). These involve the extent to which people care for one another, trust each other, are open to others joining, or are angry at their government, afraid of speaking, etc. Conceiving of personal identity as inherently social and involved in community allows us to better distinguish among various types of collective

emotions and see how we might be able to foster the sort of society that can meet both autonomous and *homonomous* needs. In what follows I would like to make some suggestions on how we might form social identities that can function in our increasingly interdependent world.

The competition for state power leads to many identity conflicts and the destruction of the very communities essential for human caring. Thus, the struggle over which tribe would dominate the state of Sierra Leone resulted in the destruction of state orphanages that were not even needed when the tribal structure was intact and orphaned children were taken care of by the tribal community. Although a state structure is needed to insure justice among different groups, legal systems rest on power and we cannot rely on the state as a unifying device. We have seen how unity can be established by emotional rituals. However, if these simply involve large-group identity they submerge individuality and create outgroup hostility. Our analysis of personal identity suggests that it is possible to satisfy both autonomous and homonomous needs if the unity of a social entity is based on personal relations and caring communities that are open to others. By extension, we must conclude that a global society that meets human emotional needs must involve a world government that is based on a global human community.

From the perspective of a military historian, Howard (2000, p. 108) observes that the basis for a common government now exists in the semblance of a “transnational community with common values and a common language, now English.” However, global society is still beset by many disruptive conflicts within and between different groups, and the majority of humans lack a sense of global human unity. Most identify with an ethnic group, nation, or religion, and referencing humanity as a superordinate provides a cognitive solution that fails to provide large-group identification. Establishing the social identity needed for democratic world government will require emotional ceremonies that will help people sense their membership in a human global community in which caring dominates fear.

In assessing progress towards a global community our investigation suggests that three different emotional needs will have to be considered. Social theorists have contrasted two of these—individualistic or autonomous needs and collectivistic or *homonomous* needs—but neglected the third—the need to care for what is other than the self. It would seem important to focus on this need and the role caring and friendship play in history and current group relations.

We may encourage meeting these three needs by assessing the collective emotional climates of different communities and the extent to which nations have a culture of peace (de Rivera & Páez, 2007). In so doing, it would seem desirable to ascertain the extent to which any society, including global society, answers three questions:

- (1) To what extent is it possible for persons to satisfy *homonomous* needs by feeling a part of a greater whole? Is it possible for persons to identify with their own ethnic or religious groups or is such an identification seen as a betrayal of the state?
- (2) To what extent is it possible for persons to satisfy autonomous needs by having the freedom to make independent contracts that are adequately regulated by the state so

that power is dispersed and justice is ensured? Is the society designed so that persons gain power and prestige by benefitting others, or by harming them?

- (3) To what extent does the society enable persons to care for others and what is other than the self? Is there enough personal space and time to permit friendship and creativity, or does the state intrude into the personal, or economic forces preclude the time required for friendship or force moves that break up friendships?

Ideally, those of us involved in the various nation-states, non-governmental organizations, and multinational organizations that are the major units in our contemporary world would help one another to answer these questions honestly so we may gradually achieve positive answers.

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Section 5

Group-based and intergroup emotion

Chapter 16

Intergroup emotion: self-categorization, emotion, and the regulation of intergroup conflict

Devin G. Ray,^a Diane M. Mackie,^b and Eliot R. Smith^c

^aUniversity of Aberdeen, ^bUniversity of California, Santa Barbara, and

^cIndiana University, Bloomington

In 1996, Knolls Atomic Power Laboratory, a contractor that serviced US warships, was forced to lay off 31 employees. Of the 245 employees who faced potential job loss, 73% were aged 40 or older. Of the employees actually laid off, all but one (97%) were aged 40 or older. The odds of such a pattern emerging by chance (independent of employees' age) were 1 in 1260.

On September 15, 2001 Mark Stroman, a resident of Dallas, Texas, shot and killed Waqar Hasan, a Pakistani Muslim, as Hasan was cooking hamburgers in his grocery store. In explaining his motives, Stroman indicated that he wanted to retaliate against local Arabs for the September 11 terrorist attacks on the world trade center in New York.

These examples demonstrate in stark terms the ongoing tragedy of intergroup conflict and discrimination. In both of these cases, people were harmed because of a social category membership. Yet these examples are clearly very different. In one instance, older workers were denied their livelihood. In the other, a Pakistani-American was denied his life.

How are theories of prejudice and discrimination to make sense of circumstances such as these? Why would some cases of prejudice lead to discrimination in hiring and firing and others lead to hate crimes? What could possibly possess a white American living in Dallas to murder a Pakistani-American stranger in retaliation for events in New York that neither man was involved in?

In this chapter, we will review intergroup emotions theory (IET), one attempt to understand intergroup conflict and its sometimes bewildering and often tragic expression. We first outline the theory itself including its origins in and connections to theories of social and non-social categorization as well as to appraisal theories of emotion. We then explore evidence supporting the basic premises of IET. Lastly, we explore how intergroup emotion functions as a self-regulatory (and group-regulatory) system, including both extensive parallels and key differences between intergroup and individual emotions.

Intergroup emotions theory

IET's explanation of intergroup conflict is twofold. First, IET advances discrete emotions as predictors of different discriminatory behaviors (in place of traditional attitudinal predictors). Second, IET posits that the emotions experienced at a particular time and place follow from a flexible definition of self and other informed by context. Intergroup emotions are thus emotions derived from self-categorization as a member of a social group rather than from individual definitions of self.

The first of these premises, that discrete emotions predict specific discriminatory behaviors, can explain much of the variable expression of prejudice. Prejudice against older workers likely reflects the perception that such workers have lost their effectiveness or adaptability, although through no fault of their own. According to theories of discrete emotions (e.g., Ortony et al., 1988; Roseman et al., 1990), such a perception would likely elicit pity. Although pity might elicit charity, it is unlikely to lead to selection in competitive promotion or retention (Cottrell & Neuberg, 2005). Prejudice against Arabs, on the other hand, likely reflects the perception that Arabs threaten American values and safety. Theories of discrete emotion suggest that such perceptions lead to anger and fear that, in turn, might lead to aggression where pity would not. This emphasis on the differentiated predictions based on specific emotions is one hallmark of IET.

These distinctions might account for the difference between employment discrimination and aggression but they do not explain why Mark Stroman would be angry at or afraid of Waqar Hasan. To reconcile the occurrence of hate crimes with a coherent model of human cognition, the idea that discrete emotions motivate specific behaviors must be combined with the flexible and sometimes collective definition of the self and others outlined in the following sections.

Categories and self-categorization

IET draws on the model of the collective self articulated under self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). The essence of self-categorization theory (itself synthesizing insights from social identity theory and work from cognitive psychology on category perception and usage) is that a collective self emerges from basic processes of categorization that have much in common with categorization of non-social objects.

Categories serve to simplify incoming stimuli by grouping them as like and not like (Bruner, 1957). In simplifying perception, the information implied by category membership is often relied on in place of actual incoming information. Thus, categorization has consequences for the way an object is perceived. If given six lines of incrementally and uniformly increasing length, dividing those lines into two categories containing the shorter three lines and the longer three lines will distort perceptions of line length. Lines on either side of the category boundary are perceived to be shorter or longer when categorized with other short lines or other long lines respectively (Tajfel & Wilkes, 1963). The

category attributes “short” and “long” distort perception of category members so that they appear more consistent with the prototypical category definition.

Objects of perception can be categorized flexibly (Rosch, 1978). A flying bright yellow creature that occasionally bursts into song could be categorized as a “canary,” as a “bird,” or as a “pet.” The particular category likely to be employed in dealing with a canary is the category that best captures similarities between like comparison objects and differences between unlike comparison objects. When discussing what sort of pet one should buy, “bird” captures many of the key shared attributes among pet birds (has feathers, aerial, eats seeds), while distinguishing birds from other classes of pets, such as cats or fish. Importantly, the use of a particular category depends on context. “Bird” is very useful in distinguishing a canary from other classes of pets, but “bird” is not especially useful when selecting a specific species of pet bird.

These properties of categories and categorization also apply to human self-definition (Tajfel & Turner, 1986). The use of categories in self-definition is evident when examining the speed and ease with which various attributes come to mind during self-description. For example, if a student majoring in engineering is asked which of several traits describe a typical engineering major and a typical liberal arts major, and that same person is then asked which of those same traits apply to her, self-descriptive traits shared with engineering majors come to mind more easily than self-descriptive traits not shared with engineering majors or shared with liberal arts majors (Smith & Henry, 1996). In other words, mental representations of the self overlap with and are informed by social category memberships.

Moreover, changes in the category applied to the self (self-categorization) produce corresponding changes in self-definition. Self-definition can thus be quite different in different comparative contexts. For example, in conversation between two men or between two women, gender does not distinguish the conversation participants and is thus not an effective category. However, in a conversation in which two men agree with one another but disagree with two women, gender categorization effectively captures the important situational similarities and differences between actors and is thus likely to be employed for categorization of self and other. When self-descriptions are compared after conversation dynamics like those just described, conditions that foster gender categorization lead to self-descriptions that are more gender stereotypic than do conditions in which gender categorization does not apply. Just as with the perception of non-social targets, if contextual factors move self-categorization to gender, that categorization will guide perception to be more consistent with the categories under use (Hogg & Turner, 1987; Turner et al., 1987).

IET (and self-categorization theory before it) takes the use of categories for self-definition literally. Just as categories define a class of objects as relatively interchangeable, definition of the self at the level of social categories makes one interchangeable with other category members. When the definition of shared social category memberships is consensual among category members, a collective definition of self emerges from the use of shared representations of social category membership for self-definition.

Of course, categorization is inherently comparative. If the situationally appropriate level of categorization for the self is male, women will be categorized at corresponding levels of abstraction, that is, as female. Thus, when conversation dynamics shift the level of categorization from individual to gender, men and women would not only begin to see themselves as interchangeable members of their gender but would also see opposite gender conversation partners as interchangeable representatives of their gender (Turner et al., 1987). In other words, the shift in self-categorization from “me” to “us” is accompanied by a parallel shift in other categorization from “you” to “them.”

The comparative nature of self and other categorization is the reason for using the term “intergroup” rather than “group” in naming intergroup emotions theory. The emotion described by IET could also be accurately characterized as group-based (e.g., Niedenthal & Brauer, 2012; Yzerbyyt & Kuppens, 2009) or category-based as appropriate to the particular question or focus.

Self-categorization and emotion

A categorization-based definition of self and other has further implications when combined with the insights of appraisal theories of discrete emotions, as postulated by IET. The basic premise of appraisal theories is that specific emotions are elicited by specific assessments of self-relevance (Ortony et al., 1988; Roseman et al., 1990). Anger, for example, follows in part from the assessment of an outcome as unfair and negative for the self.

When the self and others are defined categorically, events are appraised in terms of their relevance for the categorical collective, rather than the individually defined self (Smith, 1993). For example, consider a man who makes a sexist remark to a woman. Based on individual self-definitions, the recipient of the remark might feel angry and a female observer might be disgusted by the man’s offensive comment. Without inclusion of the recipient in the self, however, the observer is unlikely to perceive direct harm to herself and is thus unlikely to experience anger. If instead gender were employed in self-definition, these actors would become interchangeable category representatives. An insult to a woman would become insult to women; the insult would now be self-relevant to both women and would elicit anger from the observer as well as from the woman who was targeted by the remark. That anger, in turn, might very well be directed at men as a class, going beyond the individual offender.

In the murder of Waqar Hasan, the murderer’s animosity was categorical. Mark Stroman was probably never harmed by Waqar Hasan or by any Arab. Rather, Stroman viewed Arabs as a category of people who had aggressed against ethnic, national, or religious categories to which Stroman belonged. With a categorical definition of self, a terrorist attack in New York evoked powerful anger and hatred in a man from Dallas. With a categorical definition of others, Waqar Hasan became interchangeable with all people perceived to be Arabs as the target of that anger and hatred.

The reality of intergroup violence makes clear the importance of understanding intergroup emotion if we ever hope to make hate crimes and ethnic cleansing a historical horror rather than current news. In many ways, the worst of intergroup emotion and

its consequences are what has motivated its study. Intergroup emotion is not inherently destructive, however. Pride in one's country, university, or community can strengthen bonds and promote cooperation or shared sacrifice during trying times. Even collective anger can be directed at social injustice and is a key element in movements for social change (van Zomeren et al., 2008). Although IET was formulated to better understand prejudice and intergroup conflict, it is ultimately an account of category-based emotion across the wide spectrum of human activity characterized by social categorization.

Empirical evidence for intergroup emotion

Initial work on IET focused on whether an appraisal model of emotion could be effectively applied to intergroup, rather than interpersonal, conflict and on whether that model of emotion would deliver the promised specificity in predicting group members' reactions to conflict. Later work from various research groups, some not explicitly referencing IET, tended to focus separately on either the advantages of a discrete emotions treatment of prejudice or on the group-based nature of intergroup emotion.

A first test

To test the viability of an appraisal model of emotion in an intergroup context, Mackie and colleagues (2000) examined anger, perceptions of public support, and the desire for confrontation among opinion-based groups, for example, people who support or oppose gay marriage. Key appraisals that elicit anger are the perception of illegitimate harm by another and the perception that one's position is strong. The outcome of anger is the impulse to confront or aggress against the source of perceived harm. In the conflict around gay marriage rights, the perception of illegitimate harm is intrinsic to the conflict; opponents of gay marriage often characterize gay marriage as a threat to the basis of family life whereas supporters of gay marriage often characterize marriage to a loved partner as a basic human right denied to gay people. The strength of opinion-based groups like these often depends on public support. When a clear majority of people support a position, that position is relatively strong. When a clear minority of people supports a position, that position is relatively weak. As illegitimate harm is constant, an appraisal model of anger predicts that members of opinion-based groups would feel greater anger with greater perceptions of public support and this anger would motivate confrontation.

Mackie and colleagues (2000) tested this idea in a study in which people indicated their position on gay marriage, saw a series of newspaper headlines the preponderance of which indicated support for or opposition to their own position, and then reported their anger and desire to confront opposing opinion groups. When the presented newspaper headlines indicated that people's position was consensually strong, people reported more anger and a greater desire to confront the opposing opinion group than when headlines indicated that people's position was weak. These results are notable for several reasons. Most participants were heterosexual, so their personal rights were not at issue in the debate. Even without direct personal relevance, appraisals of public support elicited

emotion which in turn governed group members' action intentions. Thus, an appraisal model of anger, specifically the combination of injustice and self-perceived strength, was effectively applied to intergroup conflict and effectively predicted a move towards confrontation in a longstanding intergroup conflict.

Discrete emotions as prejudice

In an important refinement to our understanding of discrete emotions and prejudice, Cottrell and Neuberg (2005) examined the relation between prejudice defined as an attitude or evaluation, and a variety of appraisals and emotions that characterized intergroup relations. They found that evaluative prejudice masked substantial meaningful variation in underlying emotion. For example, white Americans' attitudes about African Americans and Native Americans were roughly similar, and less positive than white Americans' attitudes toward other white Americans. However, white Americans' discrete emotions about African Americans and Native Americans, and the perception of the different types of threats to American citizens and society presented by these groups, were quite different. African Americans were regarded with a mixture of anger, disgust, fear, and pity whereas emotional reactions to Native Americans were dominated entirely by pity. Similarly, African Americans were perceived as presenting a wide variety of threats ranging from threats to physical safety and property to violations of reciprocity relations, whereas Native Americans were perceived primarily as endorsing different values from other American citizens and being unable to reciprocate in interaction with other American citizens.

Clearly, the complex mixture of negative emotions that white Americans expressed about African Americans is not the same as the pity expressed for Native Americans. Although neither group would likely welcome the emotions expressed by white Americans, the behavioral expression of those emotions in intergroup interaction is likely quite different. Mixed anger and fear directed at African Americans, for example, might lead to hostility and aggression. Pity directed at Native Americans, on the other hand, might lead to patronizing charity in place of respect and egalitarianism.

Ray and associates (2012) took a similar approach to understanding systematic differences in prejudice, specifically those arising from multiple cross-cutting category memberships. The attitudes and emotions surrounding the combination of gender and sexual orientation were particularly illustrative. Straight men had the most positive attitudes toward straight women, moderate attitudes toward other straight men and towards lesbian women, and relatively negative attitudes towards gay men. Thus unshared sexual orientation suppressed evaluations but unshared gender elevated evaluations. This pattern is perhaps not surprising to most readers. Straight men look to straight women for romantic involvement and a gay lifestyle is often characterized as violating moral norms or normative definitions of gender. Examination of underlying emotions supported the first of these intuitive explanations. In the sample of male university students examined in this work, positive attitudes towards women were best explained by lust (i.e., sexual desire). Positive attitudes toward straight people, however, were better explained by camaraderie

directed at other straight people than by disgust directed at gays. Thus, straight men liked other straight men better than gay men not because of moral disgust at a gay lifestyle, but because straight men elicited emotions associated with platonic friendship. In turn, lesbian women were evaluated more positively than gay men not because they elicited camaraderie in the same way as other straight men but because lesbian women, like straight women, elicited sexual desire.

This discrete emotions analysis of the combination of gender and sexual orientation provides substantially more information than simple evaluation. Among male university students, relatively negative attitudes about gay men were not based on negative appraisals of a gay lifestyle, but rather on positive appraisals of a heterosexual lifestyle. Although still not egalitarian, lack of camaraderie is unlikely to provoke hate crimes. Moreover, this population's attitudinal preference for women over men was not based on deep respect but on baser sentiments. Consistent with accounts of ambivalent sexism (Glick & Fiske, 2001), such regard is thus unlikely to be of any benefit in non-romantic domains and actually has the potential to create unwanted romantic attention. These results make clear the importance of understanding the emotional basis of both negative and positive intergroup attitudes and support the ability of a discrete emotions approach to prejudice to integrate complex cases of prejudice into a coherent theoretical framework.

The group-level nature of intergroup emotion

The group-level nature of intergroup emotion has been most directly investigated by examining convergence and divergence of emotions within and between social groups. The measurement approach used in these investigations is borrowed from studies of the relation between personality and chronic emotion in which people with different personality types report the extent to which they currently feel a variety of different positive and negative emotions (e.g., Watson & Clark, 1992). Smith, Seger, and Mackie (2007) used this approach to study differences in the experience of emotions within individuals when they self-categorize in different ways. To the extent that flexible definition of self should change the situational cues that are self-relevant and therefore contribute to one's daily experience of emotion, distinct emotional profiles should emerge for different definitions of self.

In an empirical investigation of this prediction, several hundred American citizens, who were also supporters of the Republican or Democratic political parties, were asked to list the emotions they experienced as an individual, as an American, and as a party member. Respondents reported feeling different emotions as a member of their various social groups than they did as an individual. Moreover, reports of group-based emotions converged on a shared emotional experience. For example, self-definition as an American elicited reports of pride across participants (all of whom were American) whereas self-definition as a Republican elicited reports of irritation across Republican participants. These emotions also predicted group-relevant actions, above and beyond individual emotions. For example, anger based in self-definition as a Democrat predicted the desire to argue with or confront Republicans whereas individual anger did not predict

such desires. These results suggest that, just as individuals with different personalities report feeling different types of emotion, a single individual will report different profiles of emotion when different self-definitions are active.

Of course, one might reasonably wonder if explicitly asking a single individual to report their emotions using several different self-definitions might introduce some artifact in reports of emotion. Perhaps the convergence among group members observed by Smith and colleagues (2007) only occurs upon careful self-reflection but not spontaneously in daily life? Additional studies suggest that this is not the case. Explicit reports of group-based emotion converge with reports of emotion experienced after subtle inductions of categorical self-definition, for example, after hearing the song, "Star-Spangled Banner" or seeing an American flag incidentally as part of another task (Seger, Smith, & Mackie, 2009).

These chronic group-level emotions have clear counterparts in acute group-based emotions tied to particular intergroup conflicts. For example, consider the categories "university students" and "Americans" (meaning US citizens). These two classes of people can overlap but also imply very different world views. For example, many Americans view Muslims as a threat to American interests and safety whereas many students view Muslims as an asset to campus diversity. Conversely, many students view police as a threat to student recreational interests whereas many Americans view police as civic guardians (Ray, 2009). Among American students, momentary self-categorization as an American or as a student, prompted through survey framing and demographic items, changed emotional reactions to Muslims and to police (Ray, Mackie, Rydell, & Smith, 2008). Specifically, American students self-categorized as American reported more anger and less respect in reaction to Muslims than did American students self-categorized as students. Conversely, in reaction to police, participants self-categorized as students reported more anger and less respect than did participants self-categorized as Americans. Thus, neither American nor student self-categorization was invariantly associated with anger or respect. Rather, both social categories prompted anger or respect consistent with category-based appraisals of Muslims and police (see Kuppens & Yzerbyt, 2009, for related findings).

Summary and evaluation

Overall, strong evidence supports IET's key premises. An appraisal model of discrete emotions clearly applies well to intergroup interactions. Such a model predicts important variations in emotion and in behavior in intergroup conflict, which can be masked by measurement of prejudice as undifferentiated negative attitudes. These emotions are also quite separate from emotions based in individual self-definition. Reports of group emotion diverge from reports of individual emotion, converge among category members, and reflect the appraisal structure of particular intergroup conflicts according to momentary self-definition.

How does intergroup emotion function?

When self-categorization co-opts the appraisal system underlying individual emotion to reflect group-relevant events and outcomes, that same self-regulatory system is applied to regulating group behavior. Thus, an important strength of IET is that the rules and principles governing the operation of group-based emotion can be inferred from well-developed parallels in individual emotion.

Such parallels were most explicitly developed in empirical work examining Americans' emotional reactions to conflicts in which they were not personally involved (Maitner, Mackie, & Smith, 2006). In one study, participants read about previously unfamiliar past military actions by their country that resulted in foreign casualties. Although participants were not themselves involved in the military actions in any way, learning about these actions elicited guilt. Participants then learned that their country had either made monetary reparations or had aggressed again. Reparations reduced guilt whereas renewed aggression increased guilt even further. In a similar study, anger in response to aggression against the US was satisfied by counterattack. In these studies, emotions served to detect group-relevant problems and motivate action to repair those problems. These problems required different types of responses (e.g., reparation versus counterattack) and elicited distinct emotions (e.g., guilt versus anger) appropriate to the required solution. Even though participants had no personal involvement in any of the events they learned about, events relevant to their category membership "American" elicited emotional responses appropriate to the regulation of that group's behavior.

The interchangeable nature of category members in such intergroup conflicts was most clearly demonstrated in work on vicarious retribution (Stenstrom, Lickel, Denson, & Miller, 2008). This work examined peoples' idiosyncratic past experiences with discovering harm to a member of a shared category that did not affect participants personally. Harm to a fellow category member reliably elicited anger at and the desire for retribution against not only the perpetrator of that harm but also innocent others who shared the perpetrator's social category membership.

The regulatory role of category-based emotion has been effectively applied to understand collective action. Guilt and anger have received particular attention in this regard. In a compelling demonstration of the power of category-based guilt (Doosje, Branscombe, Spears, & Manstead, 1998), participants were led to believe they were members of the group "inductive thinkers" based on a previously completed problem-solving task. Participants then evaluated creative products (patterns created with geometric tiles) ostensibly created by other inductive thinkers or by deductive thinkers, a different category of people. Participants were then told one of four things: that the scores assigned to the products made by deductive thinkers revealed no biases; that they personally had been biased against deductive thinkers; that inductive thinkers, but not the participant personally, had been biased against deductive thinkers; or that both the participant personally and inductive thinkers had been biased against deductive thinkers. Participants then reported their guilt as well as their desire to somehow compensate deductive thinkers. Not surprisingly,

participants felt guilty and wanted to compensate deductive thinkers when they learned they had personally been biased. But participants also felt guilty and wanted to compensate deductive thinkers when inductive thinkers were biased even when participants personally had not been. This occurred despite the fact that participants had just discovered that they were an inductive thinker, a category with which they had no meaningful history. This work provides a clear demonstration of distinct collective and individual bases for emotion as well as clear parallels in the function and consequence of such emotion.

Anger also plays a role in collective action by advantaged group members. For example, in work on white Australian political action on behalf of Aboriginal Australians, guilt was found to be a key predictor of abstract goals of compensation, but anger at other white Australians was critical to motivating specific political actions such as letter writing campaigns and participation in protests (Leach, Iyer, & Pedersen, 2006). Similarly, in predicting American and British citizens' reaction to their national involvement in Iraq, shame (an emotion closely related to guilt) predicted support for political causes that focused on withdrawing from Iraq, whereas anger predicted the desire to support political causes that focused on confronting policymakers responsible for American or British involvement (Iyer, Schmader, & Lickel, 2007).

Anger plays an even more important role in collective action by disadvantaged groups. Anger, in combination with perceived efficacy and commitment to a disadvantaged social category, is a primary driver of collective action by disadvantaged groups. In one illustrative study (van Zomeren, Spears, Fischer, & Leach, 2004, study 2), Dutch students learned that their university or department was implementing new policies unfavorable to students, for example, tuition increases. These participants also learned that students had or had not been included in the decision process (thus affecting appraisals of fairness) and that many or only some other students were upset about the changes (thus affecting perceptions of collective support). Students who perceived collective support in opposition to an unfair decision process were angry and that anger predicted the desire to participate in collective action opposing the educational changes. Reviews and meta-analyses of the collective action literature provide broad-based and strong support for the importance of anger in motivating collective action and social change, in contexts ranging from ethnic disadvantage to anti-poverty activism (Thomas, McGarty, & Mavor, 2009; van Zomeren, Postmes, & Spears, 2008).

Note that these studies also illustrate different forms that collective action can take. In these studies, collective action often took the form of cooperative joint action like political movements. Category-based emotions might be especially conducive to such forms of cooperative action because category-based emotions tend to be similar for different category members (Smith et al., 2007). However, in the case where participants felt guilty about discrimination that they personally had nothing to do with, they endorsed righting a collective wrong by compensating the victims of discrimination not only through collective action but also personally. In these examples, the motivating emotions were collective and the aims were collective but the experience of emotion and the resulting action was sometimes cooperative in nature and sometimes individual. Theories of discrete emotion

suggest that these different types of action are likely prompted by external constraints (e.g. no other category members are present) or by subtle differences in appraisals between events. The core involvement of self-categorization, appraisal, and emotion, however, is shared across these forms of collective action.

The parallels between individual emotion and intergroup emotion include other less direct effects of emotion. For example, anger, in addition to motivating confrontation, tends to increase preferences for high-risk-high-reward solutions in problems that have nothing to do with the original cause of the anger (Lerner & Keltner, 2001). So too does intergroup anger. In one study on intergroup anger (Rydell et al., 2008, experiment 3), participants recalled a time when they experienced anger because of events that involved them personally or because of events that involved one of their social groups but not them personally. Participants then completed the “Asian disease problem,” a scenario in which participants must choose between responses to an outbreak of disease that have the potential to save a higher number of lives with a lower likelihood of success or that have the potential to save fewer lives with a higher likelihood of success. Participants who recalled either group-based or individually based anger preferred riskier solutions relative to participants who recalled instances of group-based or individually based fear.

Related results have been obtained for misattributions of arousal, that is, mistaken perceptions of the source of the arousal that is a component of anger. People are not always consciously aware of the causes of their emotion (Schachter & Singer, 1962). In such cases, the experience of emotion is heavily dependent on inferences about its causes. For example, arousal that is actually due to anger at learning about group-based inequality can be misattributed to annoying buzzing lights (Rydell et al., 2008, experiment 1). These studies drive home the full extent to which individual emotion and category-based emotion appear to share the same basic emotion system. Category-based emotions do not subjectively feel any different than individual emotions.

How does intergroup emotion differ from individual emotion?

In addition to their origins in different self-definitions, two critical differences emerge between individual and intergroup emotion. The first of these differences is that category-based emotions encourage consensus. Although there is normally no one qualified to contradict an individual about what he or she is currently feeling, category-based emotion derives from a socially shared definition of self. To the extent that category members share common representations of their category membership and of the circumstances giving rise to category-based emotion, category-based emotions will converge. However, to the extent that such representations are different, emotional reactions might also diverge. In turn, people may find it uncomfortable to experience different emotions from their fellow group members, and may attempt to reduce this discrepancy.

People compensate for such discrepancy most simply by adjusting their perceptions and feelings to be consistent with the perceived consensus. In one study, male and female Americans reported their emotions as Americans or as members of their gender and then received information about what other men, women, or Americans said in response to the

same questions (Moons, Leonard, Mackie, & Smith, 2009). This information was manipulated so that it always indicated that participants' responses were discrepant from one of their social categories. These same people were later asked to report their category-based emotions again. These reports moved in the direction of the consensus information provided by the experimenters. Importantly, participants changed only the emotion on which the perceived discrepancy existed, and only in response to the discrepant category. Moreover, changes in group-based anger affected later decision making, suggesting that the reported changes in emotion were internalized and truly experienced rather than reflecting self-presentation or public conformity.

In daily life, a primary means of achieving consensus appears to be social talk, seemingly trivial stories about people or groups in daily conversation. The narratives in social talk often align conversation participants' appraisals, emotions, and desired actions in response to the subject of such talk (Peters & Kashima, 2007). For example, stories about a friend's charity work promote admiration of that friend in others and corresponding positive action toward that friend.

Such adjustments make intuitive sense in the context of regulating collective action. Collective action will likely be most easily coordinated if the involved actors have similar appraisals of the conflict situation, leading to similar feelings. Consistent with this idea, women who heard about another woman's experience of ambiguous gender discrimination felt angrier and wanted to respond to the incident more when they endorsed or were provided with a view of women as stereotypically angry (Leonard, Moons, Mackie, & Smith, 2011).

When differences in category members' representations of their shared membership cannot be reconciled, categories can fragment into subcategories or members can leave permeable categories. For example, disagreement about the ordination of women in the Church of England prompted many clergy members to consider moving to a different church (Sani, 2005). The importance of agreement on core elements of self-definitional social categories appears sufficient either to motivate internalization of the perceived consensus, or, when differences cannot be resolved, category fragmentation or exit.

Consensus information thus plays a key role in the regulation of intergroup emotion. Emotional consensus (or lack thereof) can influence intergroup emotion by changing the application of categories to the self and others or by modifying the content of the category definitions applied to the self. Shared intergroup emotion could also serve intragroup functions such as creating or reinforcing group solidarity (Smith et al., 2007). Note, however, that consensus information is not the same thing as temporally shared emotional experience. Temporally shared emotions would provide consensus information but asynchronous information about other category members' emotional experiences can also provide consensus information. Moreover, intergroup emotion can be experienced in isolation from others. An individual experiences intergroup emotion whenever emotion is derived from a categorical definition of self, whether other category members are present or not. In sum, intergroup emotions track consensus information but first-hand experience of such consensus is not a precondition to intergroup emotion.

The second major difference between individual emotion and intergroup emotion is that the experience of intergroup emotion differs depending on the relationship between particular individuals and the social categories to which they belong. Individual identity is an inevitable part of self-definition. Knowledge about the way our unique traits differentiate us from others is central to everyone's self-representation. In contrast, the use of social categories in self-definition is more flexible. Social categories differ between individuals with respect to their importance and affective significance for self-definition. Some people are strongly attached to nationality, for example, whereas others might take more pride in their ethnicity. Still other people might not consider either their nationality or ethnicity to be particularly important aspects of who they are. Such variation in individual attachment to social categories is referred to as identification with a given social category (Leach et al., 2008).

Identification affects the use of categories in self-definition and thus the experience of intergroup emotion. Those who identify strongly with a social category either use that categorization in self-definition more completely or are more likely to adopt that social category for self-definition in various circumstances (Leach et al., 2008). The same type of response time evidence that demonstrates the use of social categories in self-definition also demonstrates the role of identification. For example, recall that an engineering major will identify attributes as self-descriptive more quickly if those traits apply to both her and to stereotypical engineering majors. If this engineering major attaches particular importance to her major, she will identify such category-self overlap faster than an engineering major who does not attach particular importance to her major (Coats, Smith, Claypool, & Banner, 2000). This finding is paralleled in the experience of intergroup emotion. Generally speaking, intergroup emotion is experienced more powerfully or more frequently for those who are more identified with a social category than for those who are less identified with a social category (Smith et al., 2007).

A critical exception to this rule is collective guilt. Those who attach greater importance to a social category are less likely to feel collective guilt on behalf of that category (Doosje et al., 1998). This exception revisits parallels with individual emotion. Just as people can engage in self-serving interpretations of their own past actions, people can also engage in group-serving interpretations of past events (Pettigrew, 1979). The likelihood of engaging in group-serving interpretation of past events is higher when greater importance is attached to the relevant social category.

Are intergroup emotions collective emotions?

IET advances the use of discrete emotions to predict specific actions in an intergroup context. These emotions are intergroup in nature because they arise in response to events impacting a social category to which one belongs rather than in response to personal self-relevance. Extensive empirical work supports the validity and utility of this approach and offers substantial insight into the nature and function of intergroup emotion. At their worst, intergroup emotions can motivate cycles of violence in which harm by one person

elicits retaliation against any member of the offending category, culpable in the instigating act or not. At their best, collective pride can bind a community together, collective guilt can motivate righting of historical wrongs, and collective anger can motivate action to improve the lives and circumstances of an entire class of people.

But are intergroup emotions collective? These emotions derive from self-definition according to socially shared categories, are usually shared among category members, and can create or reinforce intragroup solidarity (Smith et al., 2007), but intergroup emotions are instantiated solely in the mental representations and experience of individual category members. These emotions are not collective in the sense that they must be experienced with others or in the sense that they originate outside the psychology of appraisal and self-relevance, for example, from emotional contagion between group members (a type of emotion termed “group emotion,” Niedenthal & Brauer, 2012). Intergroup emotions are collective, however, in the sense that they derive from the interests and perspectives of a self-definition that includes other people. Moreover, the actions motivated by intergroup emotions are collective in that they treat individual people as interchangeable category members.

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Chapter 17

The social psychology of collective guilt

Mark A. Ferguson^a and Nyla R. Branscombe^b

^aUniversity of Wisconsin-Stevens Point and ^bUniversity of Kansas

One constant in human history is the existence of conflict between social groups. Whether slavery, war, or genocide, instances of intergroup victimization can be found in numerous cultures across time. Research from a social identity perspective has extended our understanding of intergroup conflict by examining its emotional consequences. In particular, intergroup emotions theory (Mackie, Maitner, & Smith, 2009; Ray, Mackie, & Smith, Chapter 16, this volume) suggests that people can experience emotions based on their ingroup's actions during conflict, regardless of whether or not they actually participated. These emotions are considered collective emotions because they arise from individuals' shared identity with a particular social group. They involve appraisals of an ingroup's actions and can foster behaviors aimed at maintaining ingroup distinctiveness relative to an outgroup. Although the experience of collective emotions (such as pride or anger) likely feels similar to individual emotions, the antecedents and consequences are different—arising from a shared ingroup identity, rather than unique personal identities.

An intergroup emotion of keen interest to researchers is collective guilt (Branscombe & Doosje, 2004). When an important ingroup is considered responsible for wrongful or illegitimate behavior, individuals can experience collective guilt. One noteworthy effect of collective guilt is its promotion of attitudes and behaviors that foster reconciliation between groups. Nonetheless, given that collective guilt is an aversive emotional state, individuals are often motivated to avoid or reduce this experience. Reduction can be accomplished either by minimizing or justifying the group's responsibility for wrongdoing. Yet, when experienced, collective guilt can be a tool for promoting social change.

A theoretically and empirically rich literature has developed since the initial research on collective guilt (Doosje, Branscombe, Spears, & Manstead, 1998). This literature was reviewed in previous publications (Branscombe & Doosje, 2004; Wohl, Branscombe, & Klar, 2006). We view this chapter as a fresh opportunity to reflect upon the last 15 years of research—robust findings, continuing controversies and limitations, and promising directions for future research.

Established themes in collective guilt research

Antecedents of collective guilt

The literature on collective guilt has generally examined three antecedents. The first is *collective identity*. When people self-categorize as members of a perpetrator group, they are more likely to feel collective guilt for their group's harmful behavior. This idea is supported by several studies examining the relationship between self-categorization and collective guilt. For instance, Zagefka, Pehrson, Mole, and Chan (2010) found that stronger beliefs about the deep connection between ingroup members across history predicted greater collective guilt for the historical victimization of outgroups. This relationship occurred for both Russia's historical treatment of Latvians and Germany's historical treatment of Jews. Furthermore Doosje and colleagues (1998) found that greater perceived ingroup homogeneity (similarity among group members) was related to greater collective guilt. Such studies suggest that self-categorization as a group member provides a basis for feeling collective guilt in response to ingroup wrongdoing.

Although there is considerable agreement that a shared social identity with the perpetrator group is essential for eliciting collective guilt, considerable disagreement exists over whether or how group identification (a key predictor of self-categorization as an ingroup member) relates to collective guilt. In some studies, researchers have found a positive relationship between ingroup identification and guilt. For instance, Doosje, Branscombe, Spears, and Manstead (2006) found that, when Dutch participants received negative information about their ingroup's victimization behavior, greater identification was associated with greater guilt. This was particularly so when ingroup members sanctioned the information. Conversely, other researchers found a negative relationship between group identification and collective guilt, possibly because highly-identified group members are more equipped to defend their group's past (Branscombe, 2004; Doosje et al., 1998). Consistent with the latter notion, Castano and Giner-Sorolla (2006) found that higher British identification predicted lesser guilt for the treatment of Australian Aborigines. Myers, Hewstone, and Cairns (2009) found similar results for religious groups in Northern Ireland. Nonetheless, other researchers found no relationship whatsoever (McGarty et al., 2005).

The second key antecedent of collective guilt is *harm responsibility*. When a valued ingroup is seen as responsible for harmful outcomes, people are more likely to feel collective guilt for the group's role in those outcomes. Most collective guilt studies examine responsibility for historically victimizing outgroup members—events such as slavery, war, or genocide. This includes historical actions such as the Dutch colonial oppression of Indonesians (Doosje et al., 1998), white settlers' victimization of Native Americans (Castano & Giner-Sorolla, 2006), and Australians' treatment of Aborigines (McGarty et al., 2005), as well as historical inactions such as the Dutch failure to prevent Bosnian genocide (Zebel, Zimmermann, Viki, & Doosje, 2008). In each of these studies, when participants did perceive the ingroup as responsible for harmful actions against outgroup members, they experienced greater collective guilt.

Other studies investigating collective guilt examine the ingroup's responsibility for the present-day victimization of outgroup members—events such as benefitting from intergroup inequalities or engaging in discrimination. For instance, Iyer, Leach, and Crosby (2003) found that stronger belief in white privilege—that whites accrue benefits from racial inequalities—was related to greater collective guilt for these inequalities. Iyer and colleagues (2003) found a similar relationship for belief in the existence of white racism. This relationship between ingroup responsibility for present-day oppression and increased collective guilt has also been supported in experimental research. For instance, Powell, Branscombe, and Schmitt (2005) found that increased white privilege salience (compared to black disadvantage) led to greater collective guilt for racial inequalities. Taken together, when one's group is perceived as responsible for historical or present-day wrongdoing, this increases collective guilt.

The third antecedent of collective guilt is *harm illegitimacy*. When an ingroup's behavior toward outgroups is seen as illegitimate, this fosters collective guilt. For instance, Doosje and colleagues (1998) found that a negative description of the Netherland's colonial oppression of Indonesians (as exploitation, abuse, and murder) elicited greater collective guilt among Dutch participants, than a benevolent description (as providing physical and social infrastructure). More recently, Bahns and Branscombe (2011) exposed heterosexual men to blog entries either supporting or opposing inequalities between homosexuals and heterosexuals. When these entries opposed inequalities, heterosexual men reported greater collective guilt for inequalities and this was mediated by greater illegitimacy.

Given that guilt is an aversive emotion, people are often motivated to avoid or reduce the experience by undermining its antecedents. Some studies examine group members' tendency to deny or reduce shared responsibility for harm. For instance, white Australians who rejected the notion of collective responsibility were less likely to report collective guilt for harm to Native Australians (McGarty et al., 2005). The denial of collective responsibility has been found in political rhetoric regarding the historical victimization of Australian Aborigines (Augoustinos & LeCouteur, 2004). This research examined political speeches by Prime Minister John Howard stating that current generations cannot, and should not, be held responsible for the wrongs of previous generations. Therefore, political rhetoric can weaken collective guilt by undermining shared responsibility.

Several other studies have examined ingroup members' tendency to deny or reduce the illegitimacy of ingroup behavior. One way to reduce the illegitimacy of ingroup behavior is to portray outgroup members as a threat. For instance, Wohl and Branscombe (2008) found that Israelis who justified their treatment of Palestinians as responses to terrorism were less likely to experience collective guilt for this treatment. Other work yielded similar results (Zagefka et al., 2010; Zebel et al., 2008).

Another way to reduce the illegitimacy of ingroup behavior is to portray the ingroup as a victim. For instance, Wohl and Branscombe (2008) found that reminding Israeli participants about the Holocaust reduced their collective guilt for harming Palestinians. This same effect occurred for American participants reminded about the September 11 terrorist attacks. The tendency to blame outgroups for ingroup behavior is particularly strong

when the ingroup is accused of perpetrating harm against others. As a result, ingroup members engage in “competitive victimhood”—they accuse the outgroup of victimizing the ingroup (Sullivan, Landau, Branscombe, & Rothschild, 2012). When this shifting of perpetrator status occurs, ingroup members experience less collective guilt for their treatment of outgroups. It seems plausible that portrayals of ingroup victimhood help to explain the relationship between actual victimhood and reductions in guilt for outgroup victimization (Myers, Hewstone, & Cairns, 2009).

Consequences of collective guilt

The established literature on collective guilt has generally examined three consequences. The first is more *positive attitudes toward the victimized group*. For instance, greater guilt for white Americans’ treatment of African Americans predicts more favorable attitudes toward African Americans (Powell et al., 2005; Stewart, Latu, Branscombe, & Denney, 2010). Greater guilt for white Australians’ treatment of Aboriginal Australians also predicts more favorable attitudes toward Aborigines (Pedersen, Beven, Walker, & Griffiths, 2004). In addition, greater collective guilt for Serbians’ treatment of Muslims during the Bosnian War is related to more empathy for Bosnian Muslims (Brown & Cehajic, 2008).

The second consequence of collective guilt is *general support for reparations*. A number of studies have shown that collective guilt among perpetrator groups is related to greater support for reparations to victim groups. For instance, stronger collective guilt for Dutch (Zebel et al., 2008) and Serbians’ actions during the Bosnian War (Brown & Cehajic, 2008) was related to more general support for reparations to Bosnian Muslims. Similarly, guilt for violence between political groups (Manzi & Gonzalez, 2007) and harm to indigenous peoples (Brown, Gonzalez, Zagefka, Manzi, & Cehajic, 2008) in Chile was related to stronger support for reparations. In fact, the latter studies found that collective guilt for actions toward indigenous Chileans was related to stronger support for reparations 6 months later.

The third consequence of collective guilt is *support for specific types of reparations*, such as apologies, forgiveness, and redistribution policies. For instance, McGarty et al. (2005) found that stronger guilt among white Australians was related to more support for an official apology to Aboriginal Australians. Wohl, Matheson, Branscombe, and Anisman (2013) found that greater collective guilt was related to stronger expectations that such apologies will encourage positive intergroup relations. Other studies examine the relationship between collective guilt and intergroup forgiveness. For instance, stronger guilt for historical violence is related to greater willingness to forgive outgroups for violence against the ingroup (Manzi & Gonzalez, 2007; Myers et al., 2009).

Other studies examine the relationship between collective guilt and support for social and economic redistribution policies. For instance, Iyer and associates (2003) found that greater collective guilt among white Americans was related to stronger support of affirmative action for African Americans. Comparable results were found with white South Africans (Klandermans, Werner, & van Doorn, 2008). Moreover, stronger collective guilt

in European New Zealanders was associated with more support of redistribution policies for Native New Zealanders (Sibley, Robertson, & Kirkwood, 2005).

Recent themes in collective guilt research

Antecedents of collective guilt

More recent literature on collective guilt has provided a deeper understanding of its three antecedents. First, research has continued to examine *collective identity*. Some studies have examined the importance of inclusive categorization for collective guilt. For instance, Ferguson and Branscombe (2014a) suggest that subjective temporal distance can function as a real world manipulation of categorization. That is, people further away in time should be seen as “less like us” than people closer in time—even for ingroup members—which reduces the collective guilt that people experience for temporally distant harm.

Ferguson and Branscombe (2014a) induced an inclusive categorization between present and future American citizens, an intergroup categorization, or did neither. They then measured collective guilt for Americans’ greenhouse emissions and willingness to reduce climate change. Perceiving similarities between present and future Americans increased guilt and willingness to reduce climate change relative to the intergroup and control conditions. The effect of inclusive categorization on willingness to reduce climate change was mediated by guilt. Similar results are offered by Peetz, Gunn, and Wilson (2010) who found that reducing temporal distance increases collective guilt, particularly for those more likely to accept an inclusive categorization with the victimized group.

Several studies have also addressed the relationship between group identification and collective guilt. For instance, Goto and Karasawa (2011) suggest that level of identification—subgroup versus whole group—might explain discrepant results in previous research. They found that identification with a particular department within a company, rather than the company itself, reduced collective guilt for the company’s harm toward another company. When blame is shifted to the larger company, this seems to excuse members of the lower department from experiencing guilt. However, when participants imagined having a close friend in their own department, this increased guilt for the company’s harmful behavior. The presence of a close friend appears to reduce the appropriateness of shifting blame upward, thereby increasing collective guilt for the company’s behavior. This work suggests that the relevant source of identification might differ across studies, thus accounting for the discrepant results.

Another explanation by Roccas, Klar, and Liviatan (2006) suggests that distinct types of group identification elicit distinct patterns of associations. They suggest that ingroup attachment, a more liberal form of group identification, should be associated with greater collective guilt for ingroup behavior. Conversely, ingroup glorification, a more conservative form of identification, should be associated with lesser collective guilt. In the context of the Israeli-Palestinian conflict, Roccas and colleagues (2006) measured Israeli attachment, Israeli glorification, and guilt for Israel’s treatment of Palestinians. The results show that Israeli attachment was associated with greater collective guilt, whereas

Israeli glorification was associated with lesser collective guilt. These distinct patterns were explained by glorifiers' stronger tendency to legitimize Israel's actions. Overall, this work suggests that the type of identification, rather than its source, may explain the discrepant results between group identification and collective guilt.

Research has also continued to examine *harm responsibility*. Studies have begun to focus on responsibility for future—rather than historical—victimization. For instance, Ferguson and Branscombe (2010) had participants read a factual description about how climate change would influence future Americans. They next told participants that either human behavior (electricity and gasoline use) or natural processes (solar flares and volcanic activity) caused climate change. Collective guilt and willingness to reduce climate change were then measured. Participants in the human behavior condition reported more collective guilt for Americans' greenhouse emissions, and willingness to mitigate climate change, than participants in the natural processes condition. This work suggests that participants can and do feel collective guilt for harming future ingroup members.

Caouette, Wohl, and Peetz (2012) extend the future victimization theme by showing that collective guilt for future victimization is stronger than for past victimization because individuals feel more responsible for future outcomes. Caouette and colleagues gave Canadian participants a fictional newspaper article about a hydroelectric project. The article either stated that the project flooded thousands of acres of Aboriginal lands 1 month ago, or that the project will flood thousands of acres in 1 month's time. They then measured perceived control or efficacy over the project, as well as collective guilt for the harm. Participants who read about the future harm to Aboriginal Canadians reported more collective guilt than those who read about past harm. This effect was mediated by greater perceived control over the harm.

This shift from examining historical victimization to examining future victimization has two important implications for collective guilt research. The first is that it broadens the number of contexts in which collective guilt can be examined. Much collective guilt research focuses on historical victimization because, in part, it is easier to distinguish collective and personal guilt when it is impossible for participants to have engaged in the past victimization. Nonetheless, when it is possible for a person to be responsible for victimization, it is critical to assess the subjective meaning of the victimization—as “my behavior” or as “our behavior.” The latter suggests a collective self-categorization, offering a basis for experiencing collective guilt.

The second implication of examining future victimization is that it shifts the focus from problem behavior to solution behavior. A substantial portion of collective guilt work examines contexts in which ingroups cause or inflame conflicts by inflicting harm on out-groups, such as discrimination, war, or genocide. However, it is possible that groups can experience collective guilt even when they are not the cause of a problem, because they fail to provide a solution. For instance, if a military dictatorship is committing genocide against its own citizens, members of another group could experience collective guilt for their leadership's failure to intervene. Seeing group membership as part of the solution, rather than as part of the problem, could yield greater insights into third-party solutions

for two-party conflicts (Subasic, Reynolds, & Turner, 2008), and into helping groups overcome their sullied intergroup legacies (Stewart et al., 2010).

Third, research has continued to examine *harm illegitimacy*. Some studies have begun to examine harm against ingroup members, rather than harm against outgroup members, under the assumption that the former would be seen as less legitimate than the latter. For instance, research by Ferguson and Branscombe (2014a) examined collective guilt for harming the future ingroup by contributing to climate change. They found that participants reported greater collective guilt when future ingroup members were inclusively categorized as part of the present-day ingroup. Moreover, studies by Sullivan, Landau, Branscombe, Rothschild, and Cronin (2013) found that Americans who read that their country's Iraq War participation harmed the United States reported more collective guilt for harming Iraqis, than Americans who read their participation harmed Iraqis. This effect was mediated by reductions in legitimizing cognitions.

The shift from studying outgroup to ingroup harm raises another interesting legitimacy-related issue—intentional versus unintentional harm. Much of the outgroup harm studied in the literature is perpetrated intentionally. An ingroup intentionally harms an outgroup through events such as slavery, war, or genocide. Conversely, much of the ingroup harm studied in the literature is perpetrated unintentionally. An ingroup unintentionally harms itself through acts that diminish its political, economic, or environmental circumstances. For instance, Ferguson and Branscombe (2010, 2014a, 2014b) found that an ingroup's greenhouse gas emissions fostered collective guilt for the harmful effects of climate change on the ingroup. Likewise, Sullivan et al. (2012) found that the unintended consequences of an ingroup's military actions for itself, such as a weakened economy or tainted international reputation, enhanced collective guilt. When an ingroup harms its own members, the harm is likely to be seen as illegitimate and thus increase collective guilt. The effects of unintended harm for collective guilt seem particularly likely for ingroup harms (which are harder to legitimize; Sullivan et al., 2012) and harms that will occur in the future (which allows groups to stress the uncertainty of whether its members will even be harmed; Ferguson & Branscombe, 2014c).

Other studies have begun to examine the costs and difficulty of providing reparations to victimized groups. The assumption in these studies is that greater costs or difficulty of resolving intergroup harms could legitimize perpetrator inaction. For instance, McGarty et al. (2005) found that greater costs of making reparations to Aboriginal Australians were associated with less guilt among white Australians for past victimization. Stewart et al. (2010) found analogous results for white Americans in the context of African American race relations. Still, reducing the costs or difficulty of making reparations does not inevitably foster collective guilt. Schmitt et al. (2008) found that moderate difficulty, rather than low or high difficulty, generated the most guilt for men's advantages over women.

Additionally, other studies have begun to examine the process of threat reduction. Such studies are based on the idea that group members will avoid collective guilt for harmful behavior through legitimization. For instance, Miron, Branscombe, and Biernat (2010) found that highly identified group members (whether measured or manipulated) required

more evidence to decide that their ingroup acted immorally against an outgroup. These higher evidential standards were related to diminished collective guilt. Thus, this research suggests that perpetrator groups raise evidence standards strategically—to legitimize the ingroup's harmful behavior.

Miron and colleagues (2010) also examined whether group affirmation—emphasizing the positive aspects of group history—would reduce legitimization and increase collective guilt. They found that participants in the group-affirmation condition set lower evidential standards for ingroup immorality, and reported greater collective guilt, than did participants in the control condition. This work shows that group affirmation could lessen perpetrator groups' tendency to legitimize their behavior through the strategic manipulation of evidence standards. Research by Gunn and Wilson (2011) found similar results. In their research, participants who affirmed their ingroup reported more guilt and willingness to compensate victims than those in the control condition. This increase in guilt was related to less legitimization of harmful behavior. Although these studies provide support for the beneficial effects of group affirmation on legitimization, other studies did not produce similar results (Cehajic-Clancy, Effron, Halperin, Liberman, & Ross, 2011).

Consequences of collective guilt

Some studies have focused on distinguishing the effects of collective guilt from the effects of other, related emotions. For instance, Ferguson and Branscombe (2014b) focused on separating the effects of personal and collective guilt on climate change mitigation. They had participants complete a carbon assessment survey and provided bogus feedback about their individual and group carbon emissions. Participants who read that they polluted a lot reported more personal guilt than participants who read they polluted very little; however, participants who read that their group polluted more than they did reported more collective guilt. Moderated mediation analyses revealed that, compared to personal guilt, collective guilt was generally a better predictor of willingness to perform behaviors that mitigate climate change.

Moreover, Ferguson and Branscombe (2014c) have separated the effects of collective anxiety and collective guilt on climate change mitigation. They asked Americans to complete a survey measuring: (1) the likelihood that climate change would harm future ingroup members, (2) collective anxiety about harm to future ingroup members, (3) collective guilt for harm to future ingroup members, and (4) willingness to perform behaviors to reduce climate change. Mediation analyses show that collective guilt is a better mediator than collective anxiety of the relationship between harm perception and willingness to mitigate climate change. Overall, these studies suggest that collective guilt about harming future generations might be better at promoting emissions reduction than collective anxiety about harm to future generations.

Schoemann and Branscombe (2013) examined the relationships between collective guilt, collective shame, collective anger, and reparations for harmful ingroup behavior. In a 61-study meta-analysis, they found a positive relationship between all three emotions and willingness to perform reparations, regardless of various situational and methodological

moderators—even so, collective guilt and shame predicted reparations better than anger. This provides further support for the idea that collective guilt fosters reparative behavior, and it does so better than anger (cf. Leach, Iyer, & Pedersen, 2006). Taken together, studies on the effects of collective guilt offer evidence for when it elicits constructive intragroup and intergroup behavior.

Other research on the consequences of collective guilt has moved beyond the study of reparative intentions to study actual reparations. For instance, Mallett, Huntsinger, Sinclair, and Smith (2008) found that white Americans' collective guilt for racial inequalities was associated with more collective behavior supporting African Americans, such as attending rallies. Stewart et al. (2010) also found that collective guilt promotes actual reparations. In this research, white participants read about discriminatory hiring practices at their university. They next read that students' actions could either change or not change the practices, and then completed measures of collective guilt and anti-discriminatory action (the number of pro-equality flyers participants took to post around campus). Stronger perceptions that students could change hiring practices led participants to take more flyers to post around campus and this effect was partially mediated by guilt. These results suggest that collective guilt can play a role in fostering actual reparations.

Limitations and future directions in collective guilt research

Methodological limitations

One consistent issue arising in collective guilt research is a lack of clear measurement. Some studies fail to distinguish between personal and collective emotions. For instance, Harth, Kessler, and Leach (2008) had participants read a news story about their ingroup's advantages or disadvantages and then completed a three-item measure of collective guilt, which started with the phrase "when thinking about the described situation, I feel..." and ended with "guilty, have a bad conscience, and ashamed" (p. 119). It is not clear whether this measure taps collective emotion, given that the items potentially cue personal identity with "I feel..." Comparable ambiguous referents appear in a number of other studies (Schmader & Lickel, 2006; Zebel et al., 2007). Given that it is possible for people to experience personal and collective guilt for the same behavior, it is not clear whether such measures actually assess collective guilt.

Other studies fail to distinguish between different emotional experiences. For instance, Zebel et al. (2007) gave Dutch participants bogus feedback about their family's involvement in Indonesian colonization and then had participants respond to two items concerning "how much shame and guilt they felt about these results" (p. 75). The scores on these items were averaged, essentially treating them as indicators of the same psychological construct. The rationale behind this strategy was based on a correlation between the items; other studies use factor analyses as a rationale for grouping mixed emotion items (Harth et al., 2008). The difficulty is that guilt and shame have long been considered distinct emotional experiences with distinct behavioral effects (Tangney, Stuewig, & Mashek,

2007). Treating two distinct emotions as the same psychological experience is methodologically and theoretically problematic as it obscures the emotion assessed. Similar difficulties are found within other studies (Klandermans et al., 2008; Leach et al., 2006).

Finally, it is often not clear whether participants are being asked about collective guilt for their group's past, present, or future wrongdoing. Consider a scenario in which participants' ingroup is depicted as colonial slave masters—the architects of present-day racial inequalities. Then participants are asked to indicate their level of collective guilt. The pertinent question is “guilt for what?” Is it guilt for their ancestors’ actions, for how the current group benefits from this legacy, or for how minority groups will suffer in the future without resource redistribution? It seems possible that these distinct temporal referents could elicit different levels of collective guilt. Taken together, these measurement ambiguities could have meaningful implications for collective guilt research.

Potential future directions

There are at least three important directions for future collective guilt research. The first is to systematically address the issue of social identity continuity and change and its relationship to collective guilt. Research has examined collective guilt in response to past, present, and future harms, but not in response to perceived identity continuity and change. For instance, Caouette and colleagues (2012) show that people feel more collective guilt for harm-doing when it will occur in the near future than when it occurred in the recent past. The authors suggested that this occurs since group members feel greater control over future events than over past events. Still, this does not explain why certain future events, and not others, elicit collective guilt. It seems plausible that group members might want to prevent certain future wrongdoings because they reflect adverse identity change (Ferguson & Branscombe, 2014b; Jetten & Wohl, 2012). If so, collective guilt might serve an *identity continuity function*—to help maintain or restore a positive social identity in the face of identity change. This might occur not because of worries about future outcomes, but rather because of guilt for actually allowing those outcomes to occur.

Furthermore, it seems plausible that collective guilt in response to past harms serves an *identity discontinuity function*—to distance the present-day group from the harm-doing of their predecessors (Augoustinos & LeCouteur, 2004). For instance, it could be that white Americans often experience collective guilt in response to historical harms against African Americans, and thus are motivated to repair such harms, because this allows current white Americans to distance themselves from racist ancestors—“We are not racist like they were!” Such feelings of collective guilt would therefore promote a sense of temporal discontinuity in collective identity that allows present-day white Americans to encourage a positive social identity (Sani, 2008). Such research would offer a valuable counterpoint to the persistent notion that groups prefer identity continuity over identity discontinuity (Sani, Bowe, & Herrera, 2008). Given that groups shape their shared memories to support group interests, it seems more likely that they prefer identity continuity or change depending on which can best facilitate a positive social identity. The empirical

question is when does collective guilt foster identity continuity, and when does it foster identity change?

A second direction for future research on collective guilt would be to examine the social consequences of expressing collective guilt. Such expressions could have consequences for the ingroup, the outgroup, or even third-party groups (Klein, Spears, & Reicher, 2007). For instance, expressions of collective guilt could lead group members to endorse reparations for wrongdoing, or they could clear members' consciences without encouraging further reparations (Augoustinos & LeCouteur, 2004). Additionally, collective guilt expressions could lead ingroup members to feel more respect for their group, or they could provoke them to abandon the group altogether—either because they think that the group has betrayed its principles (Sani, 2008), or because they want to distance from a group with a negative history (Powell et al., 2005).

Expressions of collective guilt could also have consequences for victimized groups. Such expressions could encourage victimized groups to feel more positively toward perpetrators, or they could lead victimized groups to feel less positively than if perpetrators had expressed other emotions, such as collective shame (Augoustinos & LeCouteur, 2004; Giner-Sorolla, Castano, Espinosa, & Brown, 2008). Furthermore, even if guilt expressions increase positive feelings for perpetrator groups, this is not necessarily a good outcome. For example, Wohl and Branscombe (2005) found that an inclusive categorization between Native and white Canadians led Native people to report weaker expectations for white people to feel collective guilt. This could be problematic as positive feelings could actually reduce intergroup conflict, without any significant changes to underlying disparities between social groups (Dixon & Levine, 2012).

The expression of collective guilt could also have consequences for third-party groups, who are not involved in the intergroup conflict. For instance, if a perpetrator group expresses collective guilt for harm against a victimized group, this could undermine the inclination of third parties to form coalitions with the victimized group to lobby for reparations (Subasic, Schmitt, & Reynolds, 2011). Conversely, perpetrator expressions of guilt could make it easier for victimized groups to gain support from third parties by making it appear that perpetrator groups are open or vulnerable to the influence of a potential coalition. The support of third parties could be essential for victimized groups' efforts to obtain redress, and expressions of collective guilt could either undermine or bolster support. Finally, the expression of collective guilt could serve as a model for other groups who struggle with their own social conflicts. The lessons learned from seeing guilt expressions and their social outcomes could encourage other perpetrator groups to foster positive relationships with their own victimized groups.

Moreover, it is also possible that victimized groups could be induced to feel collective guilt, thereby reducing conflict between groups without substantive changes to existing social inequalities. Consider ethnic minorities who are subtly encouraged by majorities to view their group as advantaged because of redistributive policies (e.g., affirmative action). Minorities who believe such assertions could experience guilt for their groups' support of such policies and thus act against them. Victimized groups' sense of discord or failure to

serve their own interests might explain some of the adverse mental health consequences occasionally found to be associated with collective guilt (Blodorn & O'Brien, 2011; Myers et al., 2009). As Dixon and Levine (2012) have suggested, the cessation of open hostilities may actually be a starting point, rather than an end point, for resolving conflict in a positive and enduring manner.

Conclusion: the next 15 years of collective guilt research

Looking back on the past 15 years of work on collective guilt in social psychology, it is clear that people can and do experience guilt for the actions of their social ingroups. It is also clear that collective guilt can be part of the solution for resolving intergroup conflicts. Like any tool though, collective guilt has its share of critics. Some suggest that collective guilt is morally problematic because it does not support an individualistic view on responsibility or because of negative health consequences among perpetrator group members (Blodorn & O'Brien, 2011). Others argue that it is politically problematic because it will not be viewed favorably among policymakers or their constituents, as well as pragmatically problematic because it might not motivate particular types of reparations (Leach et al., 2006). The claim has never been that collective guilt is a panacea for social change, but rather one tool among many that could facilitate positive intergroup relations. For this, collective guilt performs admirably.

As we look ahead to the next 15 years of collective guilt work, efforts must be taken to look beyond the prototypical group-based guilt situation outlined in initial work (Doosje et al., 1998)—where participants experience guilt for their group's historical treatment of an outgroup. Although the issue of intergroup reconciliation remains important, the strong imagery associated with historical victimization should not limit our imagination. The future of collective guilt work might well reside outside the domain of historical victimization—to include guilt stemming from unintentional harms inflicted upon future generations, or in determining how guilt could actually hinder social harmony. We hope that the next 15 years of work will reveal that we are all the better for such developments.

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Chapter 18

Collective pride, happiness, and celebratory emotions: aggregative, network, and cultural models

Gavin Brent Sullivan

Leeds Metropolitan University

In recent years, many instances of positive collective emotional manifestations of widely shared forms of pride, joy, and happiness have been reported in international media. Reactions to Obama's election victory in 2008 included pride, excitement, and euphoria amongst supporters within the USA and worldwide. In 2010, the successful rescue of trapped miners in Chile produced contrasting emotions of national pride within the country and transnational collective joy in the global audience following the drama. In Japan, the women's soccer team triumph in the 2011 FIFA World Cup produced widespread happiness only a few months after the nuclear disaster and devastating tsunami. In the Ivory Coast in April 2011, supporters of rebel Alassane Ouattara celebrated in the streets after the UN confirmed the capture and surrender of former President Gbagbo. Finally, 80% of the 1002 Britons (aged 16 years and over) surveyed about the 2012 Olympics felt that the "games has made people more proud to be British"—although 53% also agreed with the statement: "the effect will be short-lived" (BBC, 2012).

These instances of intense collective positive emotion represent only a brief list of events that require greater investigation, understanding, and explanation by an interdisciplinary combination of work from philosophy, sociology, cultural studies, political science, and social psychology. Although multiple perspectives can be taken toward the emotions that occur in groups, it is important to identify some common features. Even when groups (or subgroups) are ephemeral, collective emotion is felt by most members of the group. This demonstrates not only the means by which a group is identified by other groups and how group members conceive themselves, but also displays common group interests, values, and aims. It is useful to be aware of: (1) the wide variety of groups in which collective emotions can occur; (2) the degree of commitment, attachment, or identification involved; and (3) the types of collectives that afford collective emotions. Salmela (forthcoming) reminds us that collective emotions can occur on the basis of voluntary commitment to "teams, fan clubs, social clubs, bands and orchestras, theater ensembles, political parties, religious sects, as well as other identity groups that focus on gender, sexuality, health, environment, spirituality, or ethnicity." Furthermore, events affirming

a collective's success, status, prestige, or dominance can generate collective pride in local and transnational "social movements of all kinds, from progressive to reactionary, radical to conservative, identity-based to heterogeneous, diffuse to hierarchical" (Fominaya, 2010, p. 401).

For some groups, however, the notion that identity is a matter of choice is inconceivable and is, therefore, not simply a matter of their level of group identification. For example, when relations to a group are conceived in terms of "blood ties" rather than the contingencies of culture—as is the case for many Germans on the extreme right (Miller-Idriss, 2006)—the perceived absence of options can further strengthen the intensity of group triumphs and failures. Where a group's identity is based on the notion of a fixed and special, unique or elevated status, the predominant collective emotions are likely to be negative and narcissistic because maintaining dominance and status is paramount (Golec de Zavala, Cichocka, Eidelson, & Jayawickreme, 2009). In contrast, members of groups with social and geographical mobility as well as degree of identity pluralism may be less likely to feel intense collective emotions like group pride.

Collective pride includes, but should not to be equivocated with, collective self-esteem (Luhtanen & Crocker, 1992) or a positive social identity because the latter phenomena are based primarily on what individuals feel on the basis of group affiliations. For example, people can take reflected glory from the achievements and attributes of groups with which they personally identify, are associated with through networks of relations, or with which they have an identifiable membership. These feelings can reveal much about structural relations of unequal status and power between groups, but for the moment collective pride is simply understood to occur at different levels, from family, institutional, organizational, and regional groups to ephemeral or established national and transnational communities. In the first part of the chapter, skeptical points about collective pride are confronted and differences are highlighted between this and other discrete collective positive emotions. In the second section, background issues such as structural features of collective pride, intergroup relations and historical considerations are explored in terms of aggregative, network and cultural models. In the third section, three examples of collective pride are examined: increased national pride in Germany during the 2010 World Cup, patriotic displays in the USA following September 11, 2001 (Collins, 2004; Skitka, 2005), and collective pride in "intractable conflicts" (Bar-Tal, 2007; Halperin, Chapter 19, this volume).

What is collective pride?

Collective pride is exemplified by the widespread positive emotion of a crowd celebrating a sporting or political triumph (i.e., occasions that people recall when something special or important occurred or was achieved which is taken by group members to "say something positive about us") and sensed by a person like a successful sports representative when he or she is the object of group pride and admiration. Each reader of this chapter can probably recall their own personal (rather than vicarious) experiences of group pride,

but it is perhaps instances of ambivalence, denial, emotional self-regulation or resistance with regard to these group feelings that are most relevant to the skeptical arguments we turn to now.

A first point of skepticism about the existence of any collective emotion—whether positive or negative, discrete or diffuse—is to note that there is no unified “thing” that could consciously experience such an affect. For instance, Pettigrove and Parsons (2012) briefly conjure and then summarily dismiss the picture of a societal “super-agent.” Combining a reference to Thomas Hobbes’s classic text of 1651 with an imagined extension of first-person psychological unity to a collective, they retort: “Those inclined to speak of collective emotions are not positing a self-conscious Leviathan” (p. 2). No “collective subject” is therefore needed to make sense of emotions that are genuinely collective (Salmela, 2012) but not necessarily reflexive in a manner analogous to individual self-evaluative emotion. Huebner (2011) expresses a similar skepticism about collective emotions but he still maintains: “some groups exhibit the computational complexity and informational integration required for being in genuinely emotional states” (p. 89). The conclusion that can be drawn from these initial considerations is that “arguments for extended cognition. . . do not generalize to arguments for an extended conscious mind” (Clark, 2009, p. 472; see also Slaby, Chapter 3, this volume).

Extension of any representation of first-person uses of “pride” and “hubris” to first-person and third-person plural examples should occur only after careful investigation and conceptual qualification. When people express what “we” feel and talk about in relation to other people and “their” emotions, it is important to represent clearly the meaningfulness (or otherwise) and potential accountability of the relevant ascription and utterance. In this respect, ontologically dubious pictures of “super-agents” or “group mind” contrast with occasions when an emotion is the product of the interactions and relationships between members of a group focused on a particular object (although the range of objects of collective pride can, of course, be quite concrete physical instantiations or abstract and imagined). First-person plural expressions and third-person plural ascriptions reflect taken-for-granted linguistic and interactional constructions in daily life. Billig (1995), for example, emphasizes the repetitive flagging of nationality through deictic linguistic forms such as “we,” “us,” and “our,” noting that this banal nationalism is widespread, taken-for-granted and “not to be corralled into the sport pages or the banal clichés of vote-seeking politicians” (p. 11). Billig also considers whether occasions of strong emotion forge, sustain and thereby explain forms of collective identity in nation states. He suggests that on occasions when the state “celebrates itself. . . sentiments of patriotic emotions, which are the rest of the year have to be kept far from the business of ordinary life, can surge forth” (pp. 44–45). Billig clearly does not deny the existence of collective emotions, but he questions whether intense, widely-shared feelings are important to the everyday construction of group belonging, collective identity and dispositions to feel group-based emotions.

A second source of skepticism focuses on occasions when ascriptions of collective emotion are conceptually inappropriate. Analyzing examples of collective fear, Huebner

(2011) concludes that it is possible to extend “emotional states to other collectivities provided they have the right sort of organization” (p. 116). Huebner argues that the “computational systems governing the behavior of the collectivity” (p. 116) which are not evident when focusing on the individuals involved are necessary and sufficient for all collective emotions. Paraphrasing and extending Huebner, it seems reasonable to examine cases in which collectives are organized in ways that allow for specific forms of emotional representation; that is, to consider the specific forms of organization that define emotions such as collective pride and distinguish them, for example, from same-valence emotions such as collective happiness and opposite-valence emotions like collective shame. But do particular discrete collective positive emotions really exist? For example, an estimated one million people attended a parade of Japan’s 2012 Olympic gold medal winners in Tokyo—the first time this has happened—when they returned from the London games (*The Guardian*, 2012a). This could simply be a diffuse form of collective positivity or “effer-vescence” (Collins, 2004) even though it might be described in many other countries as national pride. Remarks such as “It delighted me how they lifted the spirits of the Japanese people. It was truly wonderful” (*The Guardian*, 2012a) further suggest that the crowd was happy and appreciative rather than proud of “our” achievement. It might appear that collective pride has not occurred if people do not organize themselves in ways that generate high levels of spontaneous positive expression (i.e., an intense collective self-related pride rather than a quiet satisfaction or appreciation) when they are together and close to the objects of their admiration. While the people in Tokyo may have experienced feelings of solidarity, enthusiasm, and agency from being part of the welcoming group, display rules against expressing national pride may have led to collective moderation of their emotions.

A third skeptical issue is whether people in such groups experience emotions of collective pride and solidarity that they would not otherwise feel. However, there is considerable anecdotal and empirical support for emotional contagion of positive emotion through social processes of emotional sharing (Rimé, 2007). People do feel more when they are physically co-present in a group rather than alone (Collins, 2004) and this is a structural feature of pride because group members can sense when their reactions to events coordinate with others to create group properties like noise level and their actions contribute to complex group behaviors such as chanting.

A fourth skeptical question is whether the history of a group really can affect the emotions of its members (Reysen & Branscombe, 2008). Collective pride often reflects a history of relations between groups and it can represent a group’s preoccupation with recognition by a significant collective “other.” Countries that organize mega-sport events, for example, often take particular collective pleasure in showing international critics that “we were able to host a successful event.” In order to avoid individualism and reductionism about collective emotion, it is important not to place too much emphasis on personal cognitions about a group’s history when explaining the organization that might distinguish collective pride from other positive group feelings because stories people share about supporting national sporting representatives together with group narratives can also shape both individual and group emotions (e.g., national narratives; Sullivan, 2009).

A fifth source of skepticism is whether group members can feel emotions for events they have not been directly involved in. With regard to collective pride, it is clear that people take pride in the achievements of other group members without any personal responsibility for the outcome. Miller-Idriss's (2006) qualitative research in Germany shows that ambivalence about national pride is still common and, for some Germans, sharing in a national triumph is tantamount to claiming personal responsibility for the outcome. In other countries, personal responsibility is not regarded as an appropriate reason for someone only to *feel happy for* rather than *proud of* group representatives. Often it is enough simply to want them to succeed to be able to share in their subsequent success without also feeling guilt. Of course, it is also possible for an individual to take a national success as grounds for widely shared nationalistic feelings and hubristic remarks such as "now we're back at the top where we belong." On this view, even genuine achievements that people celebrate might fuel subsequent group behavior and narratives of group superiority.

A final skeptical issue is whether collective pride is always positive. For example, Skey (2006) contrasts the notion of banal nationalism with what he tentatively describes as "ecstatic nationalism." Crucially, he is aware that there are celebrations which have a distinctly mixed flavor with some appearing to be aggressive, defiant, and based on superiority rather than merely being joyful, happy, and expressive of satisfaction. Collective pride may mark out a subgroup with a different national, ethnic, or political ideology, agenda, and interests. Skey's emphasis on making explicit the connections between culture and power therefore recognizes that "some ecstatic events may act as forces for disunity within a wider society, although they promote solidarity within a particular section of the population" (p. 152). Examples of questionable "ecstasy" include Americans celebrating the death of Osama bin Laden with chants of "U-S-A" outside the White House and "the Orangemen Parades that 'celebrate' Protestant hegemony in a divided Northern Ireland" (Skey, 2006, p. 152). The feel of different forms of positive collective emotion will be further explored in specific examples which include collective pride in conflict situations and in relation to collective shame.

Aggregative, network, and cultural models of collective pride

Having addressed skepticism about collective pride, it is important to examine different models of collective pride and similar emotions before analyzing specific examples of collective pride and collective hubris.

Aggregative models of collective pride

The aggregative model implies that collective pride has no properties additional to those emotions felt and displayed by individuals. Increases in a group's collective pride may therefore be judged on the basis of combined questionnaire responses to the items constituting measures of group-based feeling such as the Collective Self-Esteem scale (Luhtanen & Crocker, 1992) or Collective Narcissism scale (Golec de Zavala et al., 2009).

The approach relies on statistical methods such as when averaged self-reports of national pride increase, but changes in emotional attitudes can be measured without capturing important features of collective emotion. For example, the 2006 World Cup hosted by Germany changed norms regulating the display of national symbols and the relationship between German citizens and their nation, but these societal and cultural changes are not evident in the statistical data. Kersting (2007), for example, analyzed representative Social Survey Data gathered before, during, and after the World Cup and found, respectively, that before the 71% of Germans stated that they were “very proud” and “fairly proud,” during the two months of the 2006 World Cup this figure increased to 78% percent and in the post-World Cup period “only 72% had a strong feeling of national pride” (p. 283). Although Kersting correctly concluded that “this phenomenon can only be explained by the euphoria existing during the World Cup” (p. 283), he did not present a model or theoretical explanation of the collective emotions that the World Cup generated.

Statistically informed judgments of mean levels of subjective well-being for a group, combined self-report measures of individual patriotic and nationalistic attitudes or national levels of happiness are not collective pride. The aggregate model and its reliance on mean self-report statistics risks misrepresenting *external relations* between concepts such as collective pride, positive emotion, and communal well-being as external relations between measured variables of individual subjective well-being and pride felt in response to specific events (e.g., sporting success; Hallmann, Breuer, & Kühnreich, 2013).

Another issue with aggregate models is that group-based emotion can be experienced in isolation as the residual effects of social structures. For instance, a central feature of intergroup emotion theory (IET; Ray, Mackie, & Smith, Chapter 16, this volume; Smith, Seger, & Mackie, 2007) is that “people who identify more strongly with a group should experience and express group emotions to a greater extent than weak identifiers, a prediction that is particularly clear for positive group emotions (e.g., happiness, pride)” (p. 432). Smith and colleagues (2007) claim that feeling positive emotion will result in people showing “stronger biases favoring the ingroup over the outgroup” (p. 433). However, their further argument that “group pride motivates people to approach other ingroup members or to increase their level of identification with the group” (p. 433) hints at forms of social organization and action tendencies specific to collective pride such as the impulses to evoke stories of previous triumphs and to celebrate at sites of national significance. Accordingly, focusing on aggregates of individual properties fails to address crucial features of context and background. Dispositions to sense and share in collective emotions that result from participation in community life do not arise only from a psychological process of identification. For example, someone in a crowd may experience solidarity and positive emotion because they share the crowd’s goals or values, but they may not fully share the intensity and nuances of the crowd’s emotions because their background is different. This person would lack sensitivity to moments of significance for the crowd and would not be able to coordinate all of their spontaneous responses with them because they were not brought up with similar embodied values, shared memories and repertoires of specific cultural knowledge.

Network models of collective pride

Network approaches to emotions in groups and as properties of group organization are highlighted by Fowler and Christakis's (2008) happiness research. The connections between people can be examined (i.e., direct and indirect relationships) and network models can include geographical or temporal constraints on the spread of happiness through a social network. The spread of emotion between people and across geographical areas indicates the type of organization needed for collective emotion which includes social sharing of emotion (Rimé, 2007), emotional contagion/entrainment and the coordination of affective expressions and displays (Collins, 2004). Network models undermine the sharp distinction between group-based emotions and collective emotions that is usually maintained by picturing individuals experiencing these emotions in isolation. Focusing on the individual in the foreground ignores features of interactions, assembly, and background context that afford and sustain a sense of a widely shared feeling.

The manner in which group-based emotions are expressed and talked about with others is important to accounts of collective emotion because, as Rimé (2007) notes, emotions are often re-experienced and more intense when they are shared (i.e., expressed to and discussed with others; see also Paez & Rimé, Chapter 14, this volume). Emphasizing interactions addresses inherent weaknesses of the aggregate model and is closer to what Pettigrove and Parsons (2012) describe as a network model of collective emotion in which "the relations between some nodes must be such as to produce characteristic responses in other nodes when confronted by certain actions, events, or states of affairs" (pp. 9–10). Using a network model, manifestations and distributions of pride (or happiness) in a community can still be considered in individual and aggregate terms even when the object is collective, but emergent network properties are emphasized (see also van der Löwe & Parkinson, Chapter 9, this volume). An additional feature of some network approaches is that an emotional atmosphere or climate that has an objective existence can be seen in the interactions between people, the symbols people display and the narratives that incorporate symbolic and other cultural resources.

A network model of collective emotion incorporates emotional heterogeneity and coordination. Collective pride might be ascribed to a group if "these responses will involve a significant percentage of persons who make up the collective experiencing affects of a particular sort" (Pettigrove & Parsons, 2012, p. 10) *and* there is relatively limited resistance by individuals or groups to the resulting emotional climate. A good example is the widespread interest, excitement, and pride that typically occurs in host countries during mega-sport events; namely, a positive mood which develops despite some protests, criticisms, and misgivings. People can, of course, experience interpersonal dilemmas when resisting or challenging a positive climate and such resistance can affect a group's balance between solidarity and alienation (Scheff, 2007).

It can also be difficult to avoid what Collins (2004) calls the common object of attention on these occasions. During the 2012 Olympics, for instance, residents of the UK living outside London found it difficult to avoid the media exposure to victories by "Team GB." Moreover, efforts to engage the public such as the Olympic Torch relay attracted large,

enthusiastic crowds and the routes were chosen to maximize interest in areas of the UK not directly involved in hosting teams or events and without any local representative competing in the games.

When people focus on a common object or complex events their attention is sustained and the potential source of pride is typically experienced in what Salmela (2012) calls a “we” rather than an “I” mode of engagement (or emotional entrainment; Collins, 2004). In the case of collective pride, the whole group would be expected to react in similar ways to events that have an impact on the shared focus of attention or, more specifically, a particular desired outcome. If individual modes of relating to the event predominate in the group, less coordination of peak experiences will occur. However, relating to an event predominantly in we-mode need not preclude individual emotional heterogeneity. When reacting to significant positive national events (e.g., winning a bid to host a mega-sport event), individual reactions include excitement, happiness, joy, euphoria, or pride. However, the group’s reactions would be expected to be more homogeneous with collective pride because the prevalence of national symbols and the readiness with which people can evoke national narratives implies group solidarity, unity, and continuity.

Cultural models of collective pride

A network model of collective pride might appear to be most appropriate because complex cultural objects such as images, films, texts, documents, symbols, and structures are included as collective emotion “nodes” (Pettigrove & Parsons, 2012). However, the example of a crowd watching an important national football team game can help to expose the limitations of a network account. For instance, when the team wins we can tell by looking at each member of the crowd that they all enjoy the victory (aggregative model), that they tend to celebrate with others in interaction rituals (network model), but they also adopt similar postures, gestures, expressive forms, and practices which draw upon an appropriate cultural repertoire (cultural model). In addition, crowds have irreducible group-level properties which include noise, social activity, spatial dispersal (e.g., going to and occupying sites with symbolic significance to continue celebrations), and economic effects (e.g., increased spending, confidence in the national economy, etc.).

There are further advantages to adopting a cultural model of collective pride in combination with some features of network models. For example, while features of interaction ritual theory (IRT; Collins, 2004) were mentioned in relation to network models, IRT also demonstrates how complex practical, material, symbolic, and interactional arrangements generate patterns of a collective emotion (i.e., including features of spread and duration). However, there are still points where the model can be improved and Collins (2012) has added an important element to IRT which is directly relevant to collective pride: the inability to predict the outcome of some rituals. Specifically, the analysis of “time-bubbles of nationalism” contrasts with earlier examples of sporting competitions in which the crowd experience appears to be an end in itself for ritual participants. The feature connecting football games, political contests, and some group conflicts therefore is the unpredictability

of the outcome that contribute crucially to the mixture of emotions that a group experiences (e.g., of joy, satisfaction, pride, euphoria, relief that might “average out” if we either considered only positively valenced emotions or excluded negative emotions such as anger and irritation). Collins (2012) describes the typical experience as a “three-month solidarity-and-hysteria zone” (p. 4) and emphasizes that the heightened experience of such events is felt (from the inside) to be “qualitatively different from ordinary life outside” (p. 4).

Although mega-sport events, national days, and other planned or foreseeable events can produce positive collective emotions, it is the unpredictability of some group-related outcomes that explains why “such moments in time have the emotion character of high drama; both tragic and joyous surprise” (p. 4). In situations of competition or conflict with another group, there is no guarantee that the outcome will be what the group desires. Collins also argues that the “length of the high plateau” of mass solidarity is dependent on the “degree of state penetration” (p. 4) such that nations “where symbolic mobilisation is easily perceived throughout the society, sustain plateaus of national solidarity in the three-month range; but societies that are more fragmented and less state-penetrated sustain the plateau for a month or less” (p. 4). This topic deserves more attention along with the proposal that there is a refractory period in which the collective emotion dissipates and “people cannot experience the same intensity again for some time; they necessarily have to come down” (p. 4). Such dynamic fluctuations in collective pride are not considered in aggregate models of collective emotion, except perhaps as negative correlations between group-based pride and group-based shame. For example, research by van Hilvoorde, Elling, and Stokvis (2010) on national pride, national shame, and sporting events suggests that the results of the Dutch men’s football team in the 2008 European Football Championship “which were above expectation, may have affected, or maybe triggered national feelings of pride and temporarily suppressed feelings of shame” (p. 96; an issue of the relations between collective pride and collective shame which was examined in the section on “Network models of collective pride” but which is also explored in relation to collective hubris in the last section).

Culturally available forms of national narratives (Hallmann et al., 2013; Sullivan, 2009) shape the communication and expression of group achievements at both the micro and broadest macro levels. Advocating an alternative might be regarded as repressing any acknowledgement of a “we” mode of relating to an event or contributing to social disintegration. A further possibility is that some of the effects of collective emotion may be beyond conscious awareness such as an unknown desire for national “subgroups” to unite. The character of collective emotional events and their consequences also evoke phenomenological features which do not appear to be properties of a network. What “it is like” to experience a climate of collective pride can include coterminous feelings of solidarity. A further phenomenological feature of collective pride often includes a sense that the status of “our group” is elevated in the eyes of other competing groups. People sense that the focus or gaze of other groups is positive, approving, and perhaps even envious; although the latter example might indicate a widespread enjoyment of the high status of one’s group or confidence that seems more like arrogance. In this respect, the

character of authentic collective pride is often distinct from genuinely collective hubris (i.e., as a group-level rather than group-based emotion). One indication that collective pride is based on grounds that can be described as authentic (i.e., justified, reasonable) is that the reactions of other groups embody their judgment that the performance or outcome is special and desirable. In contrast, with collective hubris the reported feelings are self-assertive but often in defiance of or without any consideration for the views and interests of other groups. As Scheff (1994) has noted, experiences of collective arrogance or hubris at the level of national groups can be angry, negative, inconsiderate, lacking empathy, and even violent in a manner that has a basis in prior, usually unacknowledged, collective shame. However, it is an open question whether what is described here as collective hubris might be better categorized as collective narcissism. Nevertheless, if this nascent account is correct, there is no simple continuum from joy (with an unacknowledged or suppressed sense of the elevation of one's group) and more boisterous, arrogant or jingoistic claims (i.e., temporary celebrations of superiority, triumph or victory) to extremes of collective hubris: rather there are dynamic relations between collective forms of pride, shame, guilt, and anger. Furthermore, authenticity itself needs to be elaborated with regard to complex normative, ideological, and political issues—such as whether a group should feel and express pride on the basis of the achievements of most of the group, subgroups, or group representatives—and must consider whether relations with imagined or real other groups reflect equal competition, unequal dominance or intractable conflict (Bar-Tal, 2007).

Toward an interdisciplinary theory of collective pride and collective hubris

In the three contexts of group achievement, intergroup competition, and intractable conflict, collective pride and collective hubris are likely to be displayed. It is unclear, however, the extent to which collective pride and collective hubris are to be regarded as different forms of the same “object.” Drawing upon the case of individual authentic pride and hubristic pride, although the idea that there are two types of pride has received widespread acceptance there are also good reasons for dissent. A range of transgressions may lead to instances of ostensibly legitimate individual pride being used to characterize an individual’s emotions as anger and defiance or to ascribe an arrogant, domineering character. Moreover, as Scheff indicates, what we might call collective pride—due to the contexts in which it occurs—may actually be collective anger, revenge, or a focus on dominance and status as a special group that has little to do with celebratory positive collective emotion. Accordingly, it is important to extend caution about the “two facets-one thing” view of individual pride (Tracy & Robins, 2007) to collective pride by examining specific cases and their contexts.

As previously noted, the prototype of an event that has a clear emotional effect on a group is often one in which there is a positive outcome for most group members even when variations in membership, commitment and context are taken into account.

Candidates for these types of events include winning and successfully hosting international sporting competitions, election victories, praise from other important groups, and collective actions that result in social and political change. Drawing carefully upon approaches to individual pride, it seems reasonable to assume that collective pride will occur when a group's standards, rules and goals are reached (e.g., for the first time) or exceeded. In contrast, maintaining standards, rules, or goals suggests refusal to accept anything (e.g., performance) below this level or it may set up unrealistic expectations (e.g., of further international success). Goals might be realistically expected to be short term although long-term commitments are also possible (i.e., instantiated across generations). For example, large nation-building projects can become sources of pride and symbols of national progress; social changes may similarly reflect the values and aspirations of a large group. Some of the outcomes that generate collective emotion may also be conceptualized in connection with dreams or desires because no group member may seriously believe that they will happen—when they do euphoria and disbelief are widespread. For example, the election of a black president in the USA seemed unlikely until Barack Obama's victory in 2008. Collective pride here includes the possibilities of relatively quiet satisfaction, happy celebrations that incorporate group symbols, and occasions of collective ecstasy and euphoria.

While collective celebrations are mostly positive when a group achieves a desired status through the variety of means available to them (e.g., international achievements), collective celebrations can change rapidly reflecting the complex situational dynamics between groups such as supporters and police. For example, after the football team Atletico Madrid's victory in the 2012 Europa League final, many fans rioted because police prevented them from celebrating at the city's Neptuno fountain. Although alcohol may have played a role it still appears that collective positive emotions were "converted" into anger when supporters perceived the police action as an affront to their collective identity. One fan noted: "What we cannot allow is that after a team from the capital, from Madrid won a European title, we are treated almost as terrorists or criminals" (*The Guardian*, 2012b). As suggested by Salmela (personal communication, January 21, 2012), it is important to note that their collective identity as Atletico fans may also be constituted by their rivalry with Real Madrid so that, on this occasion, having finally reached a similar "title-winning" status, police action to prevent them celebrating as their rivals had previously was humiliating and unbearable. Instances of group celebrations that are antisocial and can be described as collective hubris or arrogance might therefore be transgressive only immediately following a victory. At that point, any collective anger or outrage will replace rather than extend positive collective pride. Thus an abrupt transformation from celebratory mood (with some forms of exuberant or provocative celebration which are tolerated due to the exceptional nature of the achievement) to angry protest might only occur because a reaction to the celebration by another group evokes unacknowledged feelings of shame and humiliation (Scheff, 1994, 2007).

A further example of the complex relationship between collective pride and collective shame concerns Germany's success as a host of and competitor in the 2006 World Cup

which transformed the German public's relationship to their country. Prior to 2006, the phrase "I'm proud to be German" was closely associated with right-wing values and displaying national pride was taboo (i.e., internalized as profound discomfort in displaying a flag or verbally expressing pride). Although some older television viewers were disturbed by images of large groups of Germans waving flags during the World Cup (Sullivan, 2009), a form of relaxed and inclusive "party patriotism" was widespread that bore no resemblance to the emotional atmosphere and extremes of nationalism during the Nazi era. This is not to deny that collective hubris in the form of devaluation of others, exercising strength and power over others, or taking revenge against competing groups might all be enjoyed in some manner and even be fed by instances of positive collective pride; nevertheless, they are unlikely to occur without suppressing genuinely mixed collective emotions and cutting off collective shame (e.g., of the sort that occurs when a country is excluded from international relations by other nations).

In conflict situations, collective pride can be linked to prejudice and violence. In the context of the political struggles of the Arab Spring in 2011, Collins (2012) notes that "it is within such three-month bubbles of extreme collective attention upon a common identity and a shared danger that both precipitous ventures and violent atrocities are most likely to happen" (p. 4). It is for these reasons that collective pride continues to be linked to increases in prejudice and possibilities of hostility toward any group that opposes the group's ambitions and interests. These cognitive and emotional features of collective pride are important because even positive and ostensibly inclusive celebrations of group achievements can reduce empathy for competing groups and encourage antisocial behavior. Other cases of pride may focus on narratives of restoration of group status in competitive situations (i.e., here group or national narratives may be more about maintaining certain values or a privileged status).

Examining collective pride in conflicts illustrates further complex group relations and background features of *collective emotional orientations* (Bar-Tal, 2007) "such as fear, hatred, or anger, [which] together with collective pride, increase affiliation, solidarity, and cohesiveness among society members in view of the threat to individuals and to society at large" (p. 1442, brackets added). Bar-Tal summarizes the way in which solidarity and unity combine with other rhetorical and emotional strategies: "by justifying the goals of the conflict and focusing on delegitimization, and the intransigence and violence of the opponent, as well as on being a victim, fear, hatred, and anger, the infrastructure implies the necessity to exert all the efforts and resources of the society in the struggle against the enemy" (p. 1442). In such contexts, patriotism is a discursive variation on collective pride because it is connected with cultural practices of recognition (rather than celebration in the positive emotional sense) of heroic or selfless sacrifice in rituals of loss and remembrance. Collective pride is felt more in connection with the quiet recognition and celebration of characteristics that register persistence, determination, and survival rather than anything like joy or feelings of triumph.

Although genuinely positive collective pride can occur in conflict situations, in many instances the experience of symbolic and rhetorical evocations of pride (e.g., through

flags and speeches) is not positive. An example of non-paradigmatic, negative, and assertive or defiant forms of collective pride is displays of national pride and symbol solidarity in the USA following September 11, 2001 (Collins, 2004; Skitka, 2005) because these are self-assertive and display support for national interests but are not necessarily positive in valence. Accounting for flag displays on the grounds that “We love our country” can still be done in a manner that is defiant rather than celebratory (e.g., much like displaying a national flag at a famous person’s funeral can convey meaning about their status to the nation but does not necessarily express a positive emotion). Increased displays of the Stars and Stripes in America after the September 11 World Trade Centre attacks were collective responses, however the shared feeling at the time was clearly not celebratory and positive. Thus, even if a person attests that they acted on the basis of patriotism or nationalism rather than anger and hostility toward an “out-group,” the action tendency was not to celebrate and the experience was not pleasurable or enjoyable.

If collective pride in a context of intractable conflict is exemplified by Bar-Tal’s analysis of Israel, Pettigrove and Parson’s (2012) analysis of a role for collective pride provides a very different account from the Palestinian perspective. They describe how constructions of collective pride are a key part of the collective emotional orientation to the conflict with Israel. For example, a 1973 Palestine Liberation Organization (PLO) document notes: “To declare Palestinian identity no longer means that one is a ‘refugee’ or second-class citizen. Rather, it is a declaration that arouses pride, because the Palestinian has become the *fida'i* or revolutionary who bears arms” (as cited in Pettigrove & Parsons, 2012). Further nodes in a network of collective emotion for Palestinians include documents, museum exhibitions, commemorations, and public spaces which demonstrate the value of collective pride as the motivation to restore a genuinely collective self-esteem and to redress the effects of collective shame created by submitting to such humiliating objects “as refugee camps, checkpoints, and the separation barrier” (p. 22). Such variations are crucial to the type of cultural account advocated here which requires that the discrete emotion of collective pride and contrasting instances of collective hubris are always seen in dynamic relation to context and a potential cultural background of collective shame.

Conclusion

Collective pride is a predominantly positive and celebratory emotion that occurs in groups such as nations in response to a range of activities, projects, and practices. Aggregative, network, and cultural models were examined with a preference expressed for a form of IRT that could be used to understand the similarities and differences between feelings and manifestations of collective pride and collective hubris in contexts of group achievement, group competition, and intractable conflict. Development of an interdisciplinary theory of collective pride and collective hubris therefore requires the inclusion of collective anger and collective shame as well as recognition that collective hubris has unique emotional contours.

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Chapter 19

Collective emotions and emotion regulation in intractable conflicts

Eran Halperin

Interdisciplinary Center (IDC) Herzliya

As presented in other chapters contained within this book, emotions, and particularly their social aspects, have a vast influence on people's attitudes, motivations, and behaviors in almost every domain of life. Yet, in some domains emotions operate merely peripherally and at times even as negligible psychological forces. In other domains, however, and under specific circumstances, collective emotions play a pivotal role in producing the screenplay of events and orchestrating the behavior of all involved individuals and groups.

This is the case in intractable conflicts, a particular type of severe conflicts that last for a long period of time, as the parties involved can neither win, nor are willing to compromise in order to reach a peaceful settlement (Azar, 1990). Anyone who has ever experienced, either directly or indirectly, a conflict such as those ongoing in the Middle East, Kashmir, Sri Lanka, Chechnya, or Rwanda, knows that these conflicts are fueled by high-magnitude, negative emotions like fear, hatred, despair, and contempt. These emotions can be felt when personally interacting with individuals involved in these violent conflicts, but they are also very dominant in these societies' general atmosphere, and hence can be found in public discourse, mass media, cultural products (e.g., arts, literature), national ceremonies, etc. (e.g., Bar-Tal, Halperin, & de Rivera, 2007).

Accordingly, to fully understand the nature of intractable conflicts and to reveal paths for the promotion of these conflicts' resolution, one must decipher the ways in which various emotional phenomena operate within these conflicts and perhaps, more importantly, the ways they influence people's individual, social, and political action tendencies regarding conflict-related events. Hence, it is quite surprising that in spite of conflict resolution scholars' wide acknowledgment of emotions' role in intractable conflicts (e.g., Bar-Tal et al., 2007; Petersen, 2002; Staub, 2005), empirical investigations into the nature and implications of emotions in these contexts were quite rare until the recent decade (see Halperin, Sharvit, & Gross, 2011, for a recent review).

This chapter's goal is to bridge this gap by bringing together recent theoretical frameworks as well as empirical findings illuminating the role and implications of collective emotions in intractable conflicts. More specifically, I attempt to reveal the reciprocal influence of the unique context (physical and psychological) of intractable conflicts on the one hand, and the emotional reactions of those involved in such conflicts on the other.

In a nutshell, my main argument is that, as time goes by, some enduring emotional phenomena become an inherent part of the conflict's psychological context, which then feeds into emotional reactions to conflict-related events.

Although it is equally important to understand the emotional aspects of all phases of conflict (i.e., eruption, escalation, management, resolution, and reconciliation), what is particularly intriguing about intractable conflicts is their perpetuation and, even more importantly, the involved parties' continuous inability to promote their resolution, in spite of the understanding that such a resolution (in many cases) would benefit their people. Therefore, the current chapter focuses exclusively on the role of collective emotions as one of the main psychological forces that propagate conflict and constitute a powerful barrier to conflict resolution. More specifically, it focuses on two sides of the same coin. On the one hand, I will describe and demonstrate the mechanism through which various emotional phenomena contribute to the continuation of intractable conflicts and hinder attempts at putting an end to them. On the other hand, in the ensuing parts of this chapter, I shall put forth the argument that, given the central role of emotions in intractable conflicts, emotional change (through direct or indirect emotion regulation) can pave the way toward conflict resolution.

In what follows, I shall first describe the unique context of intractable conflicts and discuss the implications of that very context on individual and collective emotions. Then I will present a general theoretical framework, describing the way in which collective emotions influence people's attitudes and behaviors regarding conflict-related events, followed by a review of some empirical data supporting that model. Next, I will discuss various avenues of influence and provide preliminary data regarding the potential role of direct and indirect emotion regulation in conflict resolution processes. Finally, I will describe future challenges in studying emotions and emotion regulation in intractable conflicts, at both theoretical and applied levels.

Intractable conflicts and their psychological context

Kurt Lewin (1951) suggested that human behavior is a function of an environment in which a person operates, and that any behavioral analysis must begin with the description of the situation as a whole. This is due to the fact that people's conception of the context determines their behavioral options to a large extent, and eventually their chosen routes of action. In line with this classic notion, I argue that collective emotions do not operate in a vacuum. As such, their generation, nature, and implications are influenced by the specific context in which they appear. The collective context's significance lies within the fact that it dictates society members' needs and goals as well as the challenges they encounter in order to satisfy them. Therefore, when analyzing the role of collective emotions in intractable conflicts, special attention should be given to these conflicts' unique context, and more specifically, to its psychological implications.

Intractable conflicts are usually defined by the following characteristics (Bar-Tal, 2007): (1) they are perceived as being about essential and even existential goals, needs,

and/or values; (2) they are perceived as irresolvable; (3) they include an enduring and destructive element of mutual violence; (4) they are perceived as being of a zero sum nature; (5) they occupy a central place in the lives of individual society members and of society as a whole; (6) they demand extensive material (i.e., military, technological, and economic), educational, and psychological investment; and (7) they persist for a long period of time, that is, for at least one generation.

The collective setting of intractable conflict should be seen as one lasting for decades, as durability is one of its most important characteristics. Throughout these years, members of societies live under high levels of perceived threat and uncertainty, and many of them even face violence, suffering, and victimization in most direct and personal ways. Thus, the nature of the *lasting context of conflict* has relevance to the well-being of society members—it engages them personally as well as occupying a central position in public discourse. It supplies information and experiences that compel society members to construct an adaptable world view.

Consequently, individuals living in such an environment are often characterized by more competitive world views, less cognitive flexibility, more “black and white” thinking, and higher sensitivity to various threat cues. On the collective level, this described psychological context poses three basic challenges to societies involved in intractable conflict (Bar-Tal, 2007). First, society members need to somehow satisfy the human needs that remain deprived during intractable conflicts, such as the psychological needs of knowing, feeling certainty, mastery, safety, positive identity, and so on (e.g., Reykowski, 1982; Staub, 2003). Second, they must learn to cope with stress, fear, and other negative psychological experiences that accompany intractable conflict (e.g., Hobfoll, Canetti-Nisim, & Johnson, 2006). Third, societies must develop psychological conditions that would be conducive to successfully withstanding the rival group. In other words, to attempt to win the conflict or, at least, avoid losing it.

To face these challenges, societies involved in intractable conflict are characterized by high levels of social cohesion and unity. As such, the group’s strong and salient collective identity is directed at new and evolved goals, that is, the need to correct and improve the ingroup’s position, or at the very least withstand the conflict (Brewer, 2011). To support social cohesion and strong identification with the group, these societies often develop a functional psychological infrastructure composed of a biased, one-sided, and oversimplified collective memories of the conflict, accompanied by a tailored ethos of conflict (Bar-Tal, 2012). This mechanism fulfills basic psychological needs of forming a meaningful world view that provides a coherent and organized picture in times of stress, threat and deprivation (e.g., Greenberg, Pyszczynski, & Solomon, 1997; Janoff-Bulman, 1992).

The collective emotional aspect of the psychological context

In concert with collective memories and the specific ethos of the conflict, societies develop, and are later characterized by, a dominant emotional culture, emotional climate of conflict (de-Rivera, 1992), and a collective emotional orientation (Jarymowicz & Bar-Tal,

2006). All three concepts capture a collective, rather than an individual expression of emotions; however, an in-depth discussion regarding the differences between them is beyond the scope of the current chapter. Taken together, these closely related collective emotional phenomena lead to a society characterized by sensitization to, and amplification and expression of, a particular emotion.

Content-wise, in the context of intractable conflict, the emotional climate/culture/orientation are driven by the dominant narratives and societal beliefs related to the conflict (i.e., the collective memory and the ethos of conflict). Hence, for example, the societal belief that the conflict is irresolvable translates into an emotional climate of despair, a belief in the delegitimization of the outgroup translates into an emotional orientation of hate, and the belief of victimization is associated with an emotional climate of fear and collective angst. This repertoire is learned from an early age on, as society members are socialized to acquire the culturally approved emotional orientation (Fiske, Kitayama, Markus, & Nisbett, 1998). Consequently, it is not uncommon to identify a hate culture or climate among groups of individuals who have never met or encountered outgroup members, or high fear sensitivity among those who are still too young to personally experience war themselves.

Individual-level emotions in intractable conflict: from emotional sentiments to intergroup emotions

In sum, all earlier collective emotional phenomena form the conflict's psycho-emotional context (Bar-Tal & Halperin, 2013). This psycho-emotional context characterizes society and hence represents more than just the aggregate emotional experiences of all individuals involved in the conflict. Yet, it undeniably has an effect on the generation and development of these individual-level emotional experiences. Given that in most intractable conflicts a majority of individuals do not experience these events directly, but rather via leaders, the mass-media and other forms of narration, a large proportion of individual-level emotional experiences are group-based, namely, are experienced "in the name" of other members of the group, specifically those who directly experienced the event, and as a result of one's identification with the group (Mackie, Devos & Smith, 2000; Wohl, Branscombe, & Klar, 2006; Yzerbyt, Dumont, Wigboldus, & Gordin, 2003; also see Ray, Mackie, & Smith, Chapter 16, this volume). Interestingly, in contrast to the appraisal process underlying individual emotions, which takes place mostly inside the individual "black-box," most of the appraisal processes of group-based emotions take place in the public sphere, and as a result are widely influenced by the emotional culture, climate, and orientation.

In addition to the "classical" phenomenon of short-term emotional experiences, the enduring nature of the conflict encompasses fertile ground for the development of a more enduring, individual emotional experience—emotional sentiments. While emotions are multi-componential responses to specific events, sentiments are enduring configurations of emotions (Arnold, 1960; Frijda, 1986). According to this view, an emotional sentiment is a temporally stable emotional disposition toward a person, group, or symbol (Halperin, 2011). In the context of intractable conflict, sentiments are usually targeted

at the outgroup as a homogeneous unit and draw their content and magnitude from the psycho-emotional context as well as from the aggregation of more concrete emotional experiences. As such, long-term sentiments such as hatred, fear, or despair can be seen as the individual level expression of the collective emotional culture, climate, and orientation (i.e., the psycho-emotional context).

The process through which these sentiments feed into emotional reactions can best be understood by utilizing Lerner's and Keltner's (2000) *Appraisal Tendency Framework*, according to which each emotion activates a cognitive predisposition to interpret events in line with the central appraisal dimensions that triggered the emotion. Accordingly, dominant long-term sentiments will increase the probability of their respective emotions' occurrence, through the elicitation of those core appraisal themes associated with the emotions. For example, Halperin and Gross (2011) recently found that Israelis' anger toward Palestinians during the war in Gaza was influenced, to a large extent, by Israelis' enduring sentiment of anger toward the Palestinians, measured more than a year prior to the war. Altogether the described process elucidates the way in which long- and short-term emotional phenomena jointly operate to form people's emotional reactions to conflict-related events. But how exactly does that process shape individual and collective actions that prevent conflict resolution?

Emotions and the continuation of intractable conflict

We have recently introduced (Halperin, Sharvit, & Gross, 2011) and empirically tested (Halperin, 2011) a comprehensive, *appraisal-based model*, demonstrating how discrete emotional phenomena shape individual's attitudinal and political reactions to conflict-related events, and hence preserve the destructive conflict's status quo and hinder progress toward peace (see Halperin, Sharvit, & Gross, 2011, figure 1). The process begins with the occurrence of a new event and/or appearance of new information related to the conflict and/or recollection of a past conflict-related event. The event or information can be negative (e.g., war, terror attack, rejection of a peace offer) or positive (e.g., a peace gesture, willingness to compromise), but it must be perceived as meaningful. As previously mentioned, in most cases such events are experienced directly only by very few group members, but are then framed and conveyed to the remaining group members through various agents and channels of communications. In these cases, the first part of the appraisal, referring to the conflict-related event as meaningful, is conducted within the public sphere, and as such is directly influenced by the dominant psycho-emotional collective context.

Such short-term events elicit individual and group-based emotions and the ensuing political action tendencies, depending on the manner in which they are appraised. For example, a violent act committed by outgroup members toward the ingroup, appraised as unjust and accompanied by the evaluation of the ingroup as strong, would induce anger (Halperin, 2008). Hence, the subjective appraisal of an event is a crucial factor in determining the kind of group-based emotion stemming from the event. Interestingly, the

appraisal process of an event related to an intractable conflict is influenced by a configuration of long-term collective aspects (i.e., psychological context), long-term individual aspects (e.g., sentiments, ideologies) and short-term evaluations.

In more detail, and as already mentioned, the appraisal of every conflict-related event is widely affected by society's emotional climate, as well as its collective emotional orientation. Beginning from the collective appraisal process, prior even to information being transmitted to the general public, conflict-related events are framed in line with societal emotional tendencies. Hence, in societies characterized by a high-fear and low-trust climate, even the seemingly most promising actions or statements of outgroup leaders would be transmitted with a flavor of suspicions. Given that the psycho-emotional context of societies involved in intractable conflict is usually negatively tuned, positive messages are frequently not evaluated as such. Accordingly, different frames for the same event may lead to different cognitive appraisals, which, in turn, may lead to different emotional responses. For example, a military action by the opponent, framed as a defensive response to previous militant actions by one's own side, may elicit fear or possibly sadness. But if framed as an aggressive action with no justified cause, it may lead to extreme anger or possibly hatred.

But even when information is obtained by the general public, different individuals still appraise it in very different ways. This diversified appraisal derives from each and every individual's experiences, ideologies, and sentiments related to the outgroup, the ingroup, and the nature of the conflict. The list of these individual-level factors is long, and an exhaustive overview of it is beyond the scope of the current chapter, but a non-exhaustive list of them would include personality factors (e.g., authoritarianism, need for structure, implicit theories), adherence to moral values, socio-economic status, and long-term ideology regarding the conflict as well as the opponent (see Halperin, 2011). Additionally, and most pertinently, this appraisal-based framework assumes that long-term emotional sentiments will lead to biased cognitive appraisals of specific events. For example, a long-term, external threat to the ingroup makes society members more attuned to threatening cues and leads to higher appraised danger that elicits, in turn, more frequent fear responses (Bar-Tal et al., 2007).

I suggest that the occurrence of a new event, integrated with these three groups of factors, shapes the event's cognitive appraisal, which provides the basis for the development of corresponding discrete emotions. In turn, these discrete emotions, and particularly the emotional goals and response tendencies embedded within them, dictate the behavioral and political responses to the event (see Halperin, 2008).

Discrete emotions and intractable conflict continuation

According to the earlier described process model, discrete emotions, rather than the mere valence of emotions, would determine people's attitudinal and behavioral reactions to conflict-related events. Hence, it is crucial to uncover the unique story and reveal the nature of each emotion in order to better understand its role as a barrier to conflict resolution. Various emotions contribute to the perpetuation of intractable conflicts, and the

scope of this chapter limits me from discussing them all. Among those that will not be discussed at length, it is important to at least mention anger, contempt, and humiliation, all of which play an important role in promoting aggression and sustaining the vicious cycle of conflict (for an alternative view of anger in conflicts, see: Reifen-Tagar, Halperin, & Federico, 2011).

Yet, even compared to these destructive emotional phenomena, *hatred* stands clearly as the most powerful affective barrier to peace (Bar-Tal, 2007; Staub, 2005). Hatred is driven by an appraisal of the outgroup's harming behavior as stemming from a deeply-rooted, permanent evil character (Sternberg, 2003). Consequently, a key aspect of hatred is the belief that it is impossible for both a positive change in the outgroup, and in the relations between the ingroup and the outgroup to ever take place (Halperin, 2011). This belief has dramatic implications on attitudes toward the peace process and negotiations. For example, two recent studies found that individuals who experienced short-term episodes of hatred in times of negotiations in the Middle East expressed an emotional goal of harming and even eliminating the opponent (Halperin, 2008). They likewise tended to reject any positive information regarding the opponent (i.e., lack of openness) and opposed the continuation of negotiations, compromise, and reconciliation efforts (Halperin, 2011). Importantly, given that hatred is associated with a fundamental negation of the outgroup as a whole, and not of the group's concrete actions or behavior, those who feel hatred toward the outgroup oppose even the smallest gestures and symbolic compromises, thus refusing to even entertain new ideas which may lead to peace.

Another powerful emotional barrier to peace is fear. Fear is usually associated with an appraisal of low strength and low control over the situation (Roseman, 1984). As such, it leads to increased risk estimates and pessimistic predictions (Lerner & Keltner, 2001). Accordingly, and given its inhibitory nature and the avoidance tendencies associated with it, fear is associated with the kind of caution that prevents people from taking any risks in the course of the conflict, which in turn also leads them to oppose any compromise that may potentially increase such risks (e.g., Bar-Tal, 2001). Indeed, studies show that experiences of threat and fear increase conservatism, prejudice, ethnocentrism, and intolerance (e.g., Feldman & Stenner, 1997; Stephan, Renfro, & Davis, 2008). Other studies, such as those done within the *Terror Management Theory* framework, show that an existential threat leads to more right-wing inclinations and to less compromising political tendencies (e.g., Hirschberger & Pyszczynski, 2010). More specific to the negotiation process itself, fear and collective angst (i.e., fear for the future survival and endurance of the ingroup) lead to the strengthening of ingroup ties (Wohl Giguère, Branscombe, & McVicar, 2011), cognitive freezing, risk-averse political tendencies, suppression of creative ideas aimed at resolving the conflict, and concrete objection to intergroup negotiation (Sabucedo, Durán, Alzate, & Rodríguez, 2011). Additionally, intergroup anxiety reduces motivation for intergroup contact, thus hindering another important avenue to the promotion of peaceful resolution of conflicts (Pettigrew & Tropp, 2006).

Yet, the story of fear is more nuanced than the one-sided story of hatred, mainly since people who feel fear just want to secure their present and future (and that of their

collective) rather than to hurt the outgroup (see Halperin, 2008). Unfortunately, the goal of guaranteeing the future is associated oftentimes with defensive or aggressive tendencies. Yet, it is important to bear in mind that the same emotional goal can, under the right circumstances, lead people to support conciliatory actions. When societies are dominated by a fearful emotional climate, any solution that is perceived as a potential threat reducer is favorably considered. Consequently, a compromising solution, framed as a “threat-reduction” tool rather than a conciliatory act or a gesture, can penetrate the filters of the psycho-emotional context and the individual emotions of fear and angst. And indeed, a handful of recent studies have shown a positive association between collective fear or angst and the willingness to make compromises for peace (e.g., Halperin, Porat, & Whol, 2013). In all of these studies, compromises are perceived by participants as the most efficient way to reduce risks, and in this way increased fear contributes to more conciliatory positions.

Finally, another powerful emotion that constitutes a barrier for peace is despair, defined also as a complete lack of hope. *Hope* involves expectation and aspiration for a positive goal, as well as positive feelings about the anticipated outcome (Staats & Stassen, 1985). Hope facilitates goal setting, planning, use of imagery, creativity, cognitive flexibility, mental exploration of novel situations, and even risk taking (Snyder, 1994). Accordingly, hope allows members of groups involved in violent conflicts to imagine a future that is different from the past as well as the negative present and come up with creative solutions to the disputes at the core of the conflict (Jarynowicz & Bar-Tal, 2006). The belief that a peaceful resolution is possible is an essential step toward taking risks and compromising.

When people lack hope for the resolution of the conflict, they tend to see the situation as static rather than dynamic (Cohen-Chen, Halperin, Crisp, & Gross, 2013). A static perception of the conflict can be driven by one of the following beliefs or by a combination of them in various forms: (1) the belief that the outgroup will never change its behavior, positions, goals and values; (2) the belief that conflict of this kind cannot really be resolved; (3) the belief that the ingroup (and especially those in the ingroup who are defined “spoilers”) will never change its behavior, positions, goals and values. Altogether, a static perception of the conflict leads to apathy, low sense of individual, group and political efficacy, and very concrete, rather than abstract view of the conflict’s issues.

And indeed, a study conducted in Northern Ireland found that hope was positively associated with the dissipation of a desire to retaliate, which, in turn, was positively related to the willingness to forgive the adversary (Moeschberger, Dixon, Niens, & Cairns, 2005). Another study (Rosler, Halperin, & Gross, n. d.) compared hope and empathy’s effects on support for compromises in the Middle East. Interestingly, results showed that hope, but not empathy, led to an increase in Israelis’ support for compromises in peace negotiations. Finally, a study recently conducted by Cohen-Chen and colleagues (2013) found that Israeli-Jews who experienced high levels of hope expressed higher support for concessions, more openness to meet Palestinians and listen to their narrative.

Can emotion regulation promote the resolution of intractable conflicts?

Emotion regulation involves processes that are targeted at influencing emotions we (or others) experience, when we (or others) experience them, and how we (or others) experience and express these emotions (Gross, 1998). An attempt to regulate emotions, or to encourage emotion regulation among others, can be accomplished in various ways and at different times throughout the emotion generation process (Gross, Richards, & John, 2006). An important question, therefore, and one that lies at the heart of our research in recent years, is whether and in what ways intergroup emotions can be effectively regulated so as to reduce aggression, promote more conciliatory positions, and pave the way to conflict resolution. Based on a slightly nuanced version of the previously made distinction between explicit and implicit emotion regulation (Mauss, Bunge, & Gross, 2007), I suggest two possible strategies that may assist those who wish to promote conflict resolution.

First, I argue that contemporary knowledge regarding the nature and political implications of discrete emotions can help form more focused, emotion-based interventions that hold the potential to promote peace. By utilizing *indirect* (or *implicit*) *regulation strategies*, those interested in understanding and promoting peace can form dedicated interventions aimed at altering concrete cognitive appraisals, thus changing public opinion about peace by changing peoples' discrete emotions. In these interventions' framework, the target audience is not trained or probed directly to regulate their emotions, but instead is exposed to concrete messages aimed at altering specific cognitive appraisals and in turn also to change the associated emotions.

Second, a more *direct emotion regulation* approach suggests that traditional and effective emotion regulation strategies, such as *cognitive reappraisal*, can be used in conflict situations, in order to change people's intergroup emotional experiences, and subsequently their political positions as well. In a typical training of such direct (or explicit) emotion regulation, the target audience is presented with a task that involves processing stimuli and is thus trained to regulate their emotional responses (regulation trial) using a strategy specified by the researcher (or trainer). This approach's underlying assumption is that by directly training individuals to regulate their negative emotions, one can potentially modulate their future emotional and political reactions to conflict-related events. In the following sections, the two approaches are briefly described, elucidated, and demonstrated.

Promoting conflict resolution by using indirect regulation strategies

Indirect emotion regulation refers to attempts to change people's core appraisals, associated with emotions that are considered powerful barriers to peace, by conveying concrete messages. Outside the lab, these messages can be conveyed to those involved in intractable conflict through the education system (e.g., Bar-Tal & Rosen, 2009), dialogue groups (e.g., Maoz, 2011), mass media, or even dramas or soap operas (e.g., Paluck, 2009).

In what follows, I describe an indirect emotion regulation approach we developed in recent years, which offers a focused, emotion-based intervention. The first step is tying the intervention's main goal to a discrete emotional phenomenon. For example, based on our accumulated knowledge, we know that promoting support for tangible compromises can be accomplished by reducing hatred and fear, while inducing anger or hope to effectively promote risk taking. Next, the core appraisals associated with these respective emotions are defined as the key target of the intervention, and in the final step an appropriate, well-established intervention is used in order to alter these core appraisals.

One example of this “reverse engineering”-based process is demonstrated in a study we conducted recently in Israel and Bosnia and Herzegovina (Čehajić-Clancy, Effron, Halperin, Liberman, & Ross, 2011). The aim of this study was to increase the willingness of Jewish-Israelis as well as Serbs to support reparation policies to their respective victimized groups. During the first step we used past research (e.g., Branscombe & Doosje, 2004; Iyer, Leach, & Crosby, 2003) to identify *group-based guilt* as the single-most effective emotion with the potential to promote such a goal (see also Ferguson & Branscombe, Chapter 17, this volume). Then, we relied on other prior studies (e.g., Brown & Čehajić, 2008) to pinpoint the acknowledgment of the ingroup’s responsibility as the core appraisal theme of group-based guilt, and subsequently searched for an appropriate manipulation that would induce such an appraisal. The simple manipulation of *self-affirmation* (Sherman & Cohen, 2006), which has been shown to decrease the need to respond in a biased or defensive manner to potentially threatening challenges to one’s competence or rationality, adequately served this goal. Results demonstrated that, in both contexts, affirming a positive aspect of the self can increase one’s willingness to acknowledge ingroup responsibility for wrongdoings against others, express feelings of group-based guilt, and as a result, provide greater support for reparation policies (Čehajić-Clancy et al., 2011).

Another interesting example of the same approach’s utilization can be found in a study we recently conducted in Cyprus, the aim of which was inducing the motivation of Turkish Cypriots to engage in contact with Greek Cypriots (Halperin, Crisp, Husnu, Dweck, & Gross, 2012). Again, we first identified *intergroup anxiety* as the emotion that has the widest influence on peoples’ motivation for intergroup contact (e.g., Pettigrew & Tropp, 2006). In a search for intergroup anxiety’s core appraisal themes, we then realized that intergroup anxiety in intractable conflict is driven by a combination of two appraisals: (1) the outgroup repeatedly hurt the ingroup, and (2) the outgroup will never change and so they will try to hurt the ingroup during any encounter in the future. Then, in a search for a simple manipulation that addresses these appraisals, we adopted ideas suggested in the literature on implicit theories (e.g., Dweck & Leggett, 1988).

According to this body of work, leading people to believe that group characteristics are malleable (versus fixed) can serve to reduce stereotypes (e.g., Rydell, Hugenberg, Ray, & Mackie, 2007) and increase motivation to compromise in intergroup conflict (Halperin et al., 2011). We speculated that such a belief change would also reduce intergroup anxiety by creating expectations for less threatening behavior by the (already-changed) outgroup. Indeed, results showed that Turkish Cypriots who were led to believe that groups can

change (with no mention of the specific groups involved) reported lower levels of intergroup anxiety and higher motivation to interact and communicate with Greek Cypriots in the future, compared to those who were led to believe that groups cannot change.

Direct regulation strategies: promoting conciliatory attitudes by using effective emotion regulation strategies

Another potentially efficient usage of contemporary psychological knowledge on emotions, which has enriched the conflict resolution field, is the use of well-established emotion regulation strategies as an educational tool aimed at promoting peace. One antecedent-focused strategy that has received considerable empirical attention is cognitive reappraisal. Cognitive reappraisal (or “reappraisal” in short) involves changing the meaning of a situation so as to change the person’s emotional response to it (Gross, 1998). Empirical evidence suggests that people who used reappraisal more frequently to regulate their emotions reported significantly less negative emotions and showed more adaptive patterns of physiological responding (e.g., Mauss et al., 2007). Reappraisal has also been found to decrease aggression (Barlett & Anderson, 2011).

Most of the research on emotion regulation to date has focused on individuals or dyads. I argue that many of the insights from such research can and should be applied to the context of intergroup conflicts. Reappraisal, in particular, may be an effective strategy for regulating intergroup emotions. This is because reappraisal, by definition, can help individuals redirect their attention to the broader meaning or consequences of events (Ray, Wilhelm, & Gross, 2008). Given that reappraisal can lead people to adopt a more balanced perspective of emotion-eliciting events, it may reduce negative intergroup emotions and, in doing so, promote more conciliatory reactions to conflict-related events.

The first correlational evidence that reappraisal is associated with conciliatory attitudes was found in a study conducted by Halperin and Gross (2011) in the midst of a war between Israelis and Palestinians in Gaza. In this study, we tested whether individual differences in the use of reappraisal were associated with different reactions during times of war. To test this, we conducted a nationwide survey ($N=200$) of Jewish-Israeli adults. We found that Israelis who tended to use reappraisal more frequently to down-regulate their negative emotions during the war were more supportive of providing humanitarian aid to Palestinian citizens.

Although interesting, these results did not provide an indication for a causal influence of reappraisal on intergroup emotions and attitudes toward peace. To address this limitation, we (Halperin, Porat, Tamir, & Gross, 2013) conducted a study in which we conducted a reappraisal training session (or not—control group) with participants ($N=60$) one week prior to a real, dramatic political event (the Palestinian United Nations bid), and then measured emotional and political reactions to the event 1 week, as well as 5 months, after the event. The results showed that participants who were trained to reappraise (versus not) showed greater support for conciliatory political policies toward Palestinians even 5 months after their training session, and that these effects were mediated by the experience of intergroup anger. Together, these studies provide preliminary supportive

evidence for our predictions, demonstrating that regulating emotions effectively by using reappraisal can lead to decreased negative intergroup emotions as well as to increased support for conciliatory rather than aggressive policies toward the rival group.

Conclusion

The study of collective emotions and of emotion regulation processes have rapidly developed in recent years. The main premise of the framework presented in the current chapter is that, while much can be learned from these developments regarding the psychological underpinnings of intractable conflict, the unique psychological context of such conflicts requires a more nuanced understanding of emotional mechanisms. According to this approach, the emotional aspect of societies involved in intractable conflicts diverges from that of other societies both quantitatively (i.e., the emotions experienced are of higher magnitude) and qualitatively (i.e., unique relationships between short/long, individual/collective emotions). Yet, as demonstrated in this chapter, a deep understanding of these emotional processes can create fertile ground for emotionally-focused conflict resolution processes. In that regard, I see the emotional aspect of intractable conflicts as an opportunity, calling for intervention through direct or indirect emotion regulation, rather than an unmanageable barrier.

Despite important developments in recent years, the study of emotions in conflict is still at its initial stages. Further theoretical and empirical work is needed in order to elaborate key aspects of the proposed framework, especially in terms of complex relationships between different emotional aspects and the ultimate timing, content, and structure of emotion-addressing interventions. Future studies should examine a wider range of emotions and emotion regulation strategies, and should aspire to integrate the understanding of the emotional mechanisms with those of intractable conflicts' more classical psychological dimensions, like ideologies and narratives of collective memories. These future efforts should be based upon a theoretical and empirical integration of all relevant sub-fields, namely, the study of international conflicts, the study of emotions and the study of emotion regulation.

With these thoughts in mind and supported by new promise in the emerging field of emotion regulation, I am confident that it is possible to proactively and deliberately pave the way toward a greater chance at peace, by helping parties acquire or further cultivate emotions which sustain or lead to more conciliatory attitudes and behavior.

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Section 6

Rituals, movements, and social organization

Chapter 20

Interaction ritual chains and collective effervescence

Randall Collins

University of Pennsylvania

Emotions are intrinsically social. Emotions arise in situations as individuals relate to other people, starting in earliest infancy. How can we theorize this, so that we can predict what determines particular kinds of emotional dynamics, and what are their consequences? A great many social causes and consequences can be integrated in a theory of interaction rituals (IRs). The theory originates in Durkheim's analysis of the social basis of religion, but as Erving Goffman showed, the approach can be extended to the mini-rituals of everyday life.

Emotions are not only social, in that they are predictable responses to particular kinds of social interactions; but also they are often collective—they are strengthened by being shared with others. Durkheim (1912/1964) called this emotional intensification collective effervescence; it should be regarded not just as the excitement that builds up in focused crowds, but as any intensification of a shared mood that occurs when certain micro-processes of social interaction take place in everyday life. In what follows, we shall see how emotions are involved in social interactions in various ways: as initiating ingredients; as what distinguishes successful from failed social rituals; as motives resulting from rituals that steer individuals' life-trajectories into particular pathways of social activities; as stratification of emotional energy between social classes and more generally between powerful and powerless persons in social organization; as differences in emotional styles and hence cultural units; as a key feature in shaping and mobilizing political interests; and in determining patterns of violence.

IRs are produced from a small number of ingredients (Collins, 2004). First, human bodies assemble closely enough so that they can perceive the micro-signals they are giving off in their voices, bodily gestures, and facial expressions. Second, they must focus their attention upon the same thing, and become mutually aware of this common focus; this establishes intersubjectivity. Third, they must feel a shared emotion. If these three conditions occur to a sufficient degree, both the emotion and the mutual focus become stronger; they build up into what Durkheim called collective effervescence, the rhythmic entrainment of all participants into a mood that feels stronger than any of them individually, and carries them along as if under a force from outside.

A successful IR has three major consequences. First: solidarity, a feeling of belonging together in a common identity. Second: membership symbols, emblems that the group respects and which remind them of their common membership; when these are a physical emblem like a flag or a religious object, Durkheim called them sacred objects; but membership symbols also include actions, gestures, words, and particular persons. Third: emotional energy (EE)—a longer-lasting feeling that individuals take with them from the group, giving them confidence, enthusiasm, and initiative (Collins, 2004).

IRs can be successful or unsuccessful, and at varying strengths along a continuum. IRs can fail; in that case their effects fail—thus we have a predictor of when people will or will not feel identity with a group, respect for symbols, and emotional enthusiasm.

Regarding the ingredients that produce an IR: it does not matter which particular emotions it starts off with. A ritual could be put together out of shared happiness, such as a celebration or a party; but very successful rituals can be put together out of shared sadness—such as gathering for a funeral of a member who has died; or out of anger—the chief political emotion, used to galvanize a group to combat the enemy; or out of fear, another common political emotion. As a crucial feature of political rituals and conflict rituals generally, the group and its leaders try to stir up these negative emotions, making them more intense than they would be if the group did not assemble and focus on them.

But here is the important point. The successful ritual, by bringing about mutual focus of attention and rhythmic entrainment, transmutes any shared emotions into a new emotion: the collective effervescence of solidarity. If we are all angry, or sad together, we nevertheless feel better and stronger. IRs are emotion transformers. They take first-order emotions—anger, joy, sadness, etc.—and transform them into solidarity. They create new, higher-order social emotions out of more primitive emotions.

Consider next the outcome side of IRs. Emotional energy is one of the higher-order emotions created by a successful IR. EE too is a variable; when the IR is intense, individuals come away from it pumped up with confidence and enthusiasm; as Durkheim (1912/1964) noted, rituals make you feel stronger, and that is why they are attractive. People are attracted to religion, or politics, or gossipy conversations, or academic lectures—when these are successful IRs; they believe in them, they internalize their messages—which is to say their symbolic meanings; they orient their lives around these kinds of rituals and try to repeat them. EE is the prime motivator of social life; successful rituals attract people to particular kinds of events where they have felt collective effervescence in the past. We see this just as strongly on the negative side, where IRs fail. The ritual is flat; collective emotion is not created; hence individuals' EE falls—they feel depressed, unmotivated, alienated, and they avoid the kinds of situations where failed rituals have happened. This is why the theory is not just IRs but IR chains—individuals move from one situation to another, not randomly, but steered by the attraction of where higher EE is found, and steered away from situations where they lose EE. This is the mechanism that produces different kinds of personalities, along dimensions such as introverts and extraverts.

On the outcome side, too, is the importance of emotion in cognition. Successful IRs produce both membership symbols—i.e. Durkheimian sacred objects—and EE. Symbols are significant because they are infused with emotion, the solidarity that came from the situations in which attention was focused upon them. Significant symbols are raised above other cognitions by their emotional content; hence they are easier to remember (Damasio, 1994) and they become the items of collective memory. But the Durkheimian point is central: memory of the past is carried on the success of rituals in the present; we may think we are commemorating the past, just as religious believers may think they are commemorating sacred events of long ago or in a transhistorical reality, but in fact it is the emotional solidarity that they derive from the present use of these symbols that determines whether they keep them alive or not.

What I have said about collective processes also applies on the level of the individual. The individual person goes from situation to situation, attempting to repeat IRs that heighten his or her EE, and to avoid those that drain EE. EE is confidence, enthusiasm, pro-activeness—towards what? As individuals, we are steered by our personal cognitions, ideas which have been generated in previous interactions; and thus our cognitions are variably loaded with different levels of EE. Some ideas derive from moments of high emotional intensity; these cognitions spring easily to the mind, and thus guide our thinking, and our planning for future action. Other cognitions have been part of failed or mediocre IRs; they are less salient in our minds, harder to remember, less significant in our mental landscape. An important theoretical prediction follows: what we think about, at any particular moment, is socially determined, by the sequence of IRs in which we have taken part, and which we anticipate will come up in the near future (see research in the sociology of thinking as internal conversation: Archer, 2003; Collins, 2004, pp. 183–220; Wiley, 1994). Schematically: IRs cause emotions which become associated with cognitions; as the intensity of IRs varies so do the chain of consequences in individuals' thinking. Very negative emotional experiences also stick strongly in one's mind (Baumeister et al., 2001; Rozin & Royzman, 2001), and mark objects of aversion. My hypothesis is that such emotions typically arise from a distinctive type of IR, which is not merely a failure—emotionally flat for all participants—but a stratified IR where one faction generates solidarity or emotional dominance that is used against another faction.

Here we must introduce some variations among different kinds of situations. I have already emphasized IRs which succeed and those which fail. Another dimension is the extent to which the IR is symmetrical for all persons who take part. Some IRs are very asymmetrical; the attention is focused on some persons more than others, and they receive much more of the solidarity and EE than others. This can happen even in rituals which have no negative element in them, rituals that are celebrations of group solidarity. Nevertheless, in a religious ritual, it is possible for most of the attention to be focused on the leader, the priest or preacher; he or she becomes a living sacred object, charged up with energy received from the audience, and thereby becoming charismatic. Similar dynamics operate in the political world; and in the modern world of secular entertainment, where

pop stars and athletic heroes are constructed by deliberate manipulation of IR processes for commercial purposes (Stromberg, 2009).

Another type of asymmetrical or stratified IR is where the assembled group is divided. One part of the group may treat another part as a culprit or scapegoat, subject to rituals of punishment or humiliation. These kinds of rituals were very common in pre-modern societies, although today we would consider them cruel because we have a preference for at least nominally symmetrical rituals of democratic participation. The survival of such an asymmetrical ritual of collective punishment is found in Islamic tribal communities stoning a woman to death for a sexual offense; modern persons in Western cultures consider this outrageous, although inside the IR structure of that community, members (at least in the male group) consider what they are doing as highly moral—following the Durkheimian principle, the community creates its own morality.

A milder version of stratified rituals is the enactment of authority, where one side gives orders and the other side takes orders, which is to say, shows its willingness to do what is ordered. According to IR theory, the order-giver, the person in authority, gains emotional energy, since he or she is the focus of attention and controls the rhythm that others follow; whereas the order-taker loses emotional energy. An important consequence of stratified rituals is that the higher social classes have more emotional energy than the lower classes; for the upper class, their daily life consists in being in the center of successful rituals; for the lower, being in rituals that are controlled by someone else and drain their emotional energy. These circuits of reproduction of high and low emotional energy are a micro-interactional mechanism that maintains stratification. Some social structures exist, of course, in which the lower classes, persons who take orders, can find their own successful IRs and thereby either contest authority (Summers-Effler, 2002), or at least escape from it into a non-stratified realm (such as mass entertainment rituals). The extent to which people can escape from energy-draining rituals is a variable; historically, most people were caged, unable to get away from rituals whether they benefitted from them emotionally or were emotionally oppressed by them. One of the shifts to contemporary modernity—perhaps we should call it post-modernity or hyper-modernity—is the amount of escape that is possible.

In pre-modern and early modern societies, people were socially caged mainly by coercion or by material necessity—they could not get away from their masters without starving. In modern/postmodern societies, there is a milder version of social domination. Individuals to a large extent are formally free to choose who they associate with; but when they come together, some persons may dominate the center of attention because they have more cultural capital, and others are excluded or on the periphery of the group because they lack the right things to talk about, either in the realm of expertise, taste, or local gossip. Cultural capital in Bourdieu's sense does not result in social dominance directly, but via its effect upon the success or failure of IRs. Thus stratification occurs inside the IRs of everyday life, making the same rituals more emotionally successful for some, and less so for others; generating dominant and dominated, enthusiastic and alienated personalities.

Successful interaction rituals predict political choices by focusing ideologies and interests

IRs steer individuals through their private lives, as they attempt to carry out personal rituals of friendship and sociability with varying degrees of success and thus make the repeated ties that constitute networks. But IRs also operate in the micro-mechanisms that produce macro-processes such as the formation and mobilization of political groups. It is conventional, alike in journalism, historical analysis, and in the rhetoric of politics itself, to refer to political actors as groups with particular interests—the middle class, the agricultural interest, government workers, etc. But such groups are not naturally constituted; they can be unaware of common interests, or more concerned about smaller local groupings, or identified with wider groupings. Material interests are ambiguous as to compatriots, time-frames, tactics, and estimates of success. But in the flow of real life, people who take part in political action—going to public meetings, talking with their acquaintances, engaging in backstage planning, joining rallies, riots, wars, etc.—become part of a discourse that defines what interests we think we are furthering, and who are in it with us. It is not the interests that holds us together, but our shared talk about interests: it is these symbol-formulated-interests that carry the Durkheimian solidarity of membership. For that reason, people in a political interest group can become committed to material interests in an emotional and moralistic way.

Political people often talk about interests, although sometimes they also talk in idealized rhetoric. They may even believe what they say about their interests, and for that matter what they say about their ideals. Sincerity is not an important question in politics, because sincere belief is a social product: successful IRs make people into sincere believers. People become insincere and manipulative mainly when they go through a range of different IRs, switching from one camp to another; or in the case of the Communist back-stage organization, when they use one strong IR to anchor their beliefs against another more public IR which is not as emotionally intense (Selznick, 1952). This leaves room for the cosmopolitan opportunist, who believes in nothing because he or she superficially surveys all factions but belongs emotionally to none. But such persons are rare in politics, probably because high EE, which is so impressive in leading other political actors, comes from being deeply embedded into emotional IRs; pure manipulators are uncharismatic and off-putting. Hitler was manipulative; but he lived at the center of very strong IRs, and Nazi ceremonial made him a true extremist for Nazi ideals. In the end, he was so pumped up with self-confidence (EE) that he destroyed his regime by taking on overwhelming geopolitical odds (Mann, 2013; Klusemann, 2010). At any point in time, we can predict the lineup of persons with varying degrees of commitment to ideas and ideals, by looking at the degree of success or failure of the IRs they experience.

IR theory is an explanation of what people will think, as well as what they will do. At any particular moment, people are speaking certain words or thinking certain thoughts; the thoughts that go through one's head are internalized from previous talk with other people; more innovative thoughts are assembled out of the ingredients of verbal ideas

already internalized. The world is a network of conversations, and what people think at any point in it is a product of what has circulated in previous conversations. There is a crucial emotional component: ideas are better remembered, and make more sense, if they were associated with emotion when they were previously talked about. Thus even in spontaneous private thinking, it is those emotionally-laden ideas that spring to one's mind. When persons strategize, or vent, or otherwise try to express their aims in words, these are the words that arise in one's head, and on one's tongue.

Put more fully: the world is a network of conversations that have different degrees of success or failure as IRs. Successful IRs are those in which the assembled group attains a high degree of mutual focus of attention, sharing a common emotion, and experiencing Durkheimian collective effervescence. Successful IRs in political life can be speeches and rallies, if they generate enough emotional energy for everyone; especially dramatic are riots and atrocities; for some professional politicians, the most important IRs are their private consultations with other political dévotes. What kind of IR it is will have an effect on what kind of political commitment it creates; the mentality of the street-fighter, the parliamentarian, and the campaign planner differ because of the contents of the IRs that are most successful for them. The important contrast is with IRs that fail, or are merely mediocre; rallies can be unenthusiastic, parliamentary sessions can be droningly routine or boringly gridlocked; riots and wars can end in dispersion as well as in solidarity. In political life as in everything else, each person gravitates towards the emotionally successful IRs and is pumped up with their way of thinking; and we move away from the IRs that don't work, and have little attraction to thinking in their symbols.

The same mechanism of success or failure of IRs determines whether people think of their interests in a short, medium, or long time-frame; on the whole, they need stronger IRs to sustain belief in long-term interests. Thus the more "fanatical" movements have the strongest IRs, including the greatest barrier to outsiders, to prevent contaminating their members' attention. And the IR mechanism determines which tactics people become committed to, and which tactics they reject. Tactics become a focus of attention, and often the most heated topic of conversation. Most political factions do not differ among themselves so much in what they are aiming for, as in their tactics for how to get it; and it is around these tactical issues that the most vehement splits have taken place. A political group's favorite tactic becomes the basis of their identity; their opponents' favorite tactic becomes the symbolic dividing line which emotionally frames their worst enemy.

A good example is the "struggle meeting" developed by Chinese Communists in their guerrilla strongholds of the 1930s (Mann, 2013). In a struggle meeting, the poor peasants of a village criticized the rich peasants and put pressure on them to mend their ways. Presence of armed communists gave the oppressed peasants confidence; but the meeting was not just an angry outburst or a lynch mob—as in traditional uprisings—because it was institutionalized, i.e. repetitive and official. The communists restrained the poor from killing their class enemies, and instead encouraged them to apply continuous group pressure, to make them change their views. This became the prototype of "thought reform" tactics—really an application of psychology of small groups, in a deliberately

manipulative mode—that were used through the 1960s Red Guards movement, no longer purging class enemies but communist administrators themselves (Walder, 2009). Like the Russian Bolsheviks (and in a different way the Nazis), the Chinese Communists were both distinctive and successful because of their innovations in the micro-sociology of group discipline (Klusemann, 2010; Selznick, 1952). And it was these innovations that made them appear so sinister to their enemies.

Interests do not become conscious motives until they are socially defined. There is no basic instinct of private property, collective property, gift-giving, or plunder; all these have been practices, in many variants, in different societies since human origins. People have to be taught to be capitalists, or union members, or reformers, or revolutionists (or, for that matter, gang members), and the way they are “taught” is not so much by admonition as by their own experiences in IRs that give them emotional energy in talking about and performing these practices.

Some material interests are easier to focus upon than others. If one already has a routine material practice, having it disrupted makes one pay attention, and that will generate a protest or a counter-attack if other persons gather with you to focus on the same grievance. Negative interests are easier to see clearly and easier to mobilize around than positive interests. Workers who are fired, or peasants who have their rents raised, can more easily see their interests than workers pondering what might they do in the future to give them higher incomes. Hence reactive movements—responses to economic downturns, threats to property from the state or other political movements—are easier to mobilize, and generally more emotionally aroused than positive movements seeking a better future (Mann, 2013). All this flows through the micro-mechanism of IRs. Negative interests—losing or feeling a threat to one’s material resources—tend to easily fulfill the conditions for successful IRs: assembling a group, focusing attention, enhancing a shared emotion about the object of attention. Positive interests, because they are more ambiguous and lead into a multiply branching future, are harder to focus on clearly; and emotions are harder to attach to them—joy and hope has to be generated in the group assembly itself, whereas in a loss or threat to what one already possesses, the emotion is generated individually and then is amplified by the group process. Movements for transformation have to do more IR work than movements defending the status quo.

Defensive interests are not always unambiguous. If landlords are taking more of the peasants’ crops, that is clear; but if an anarchist or socialist movement threatens your property, the movement may not be as threatening as it appears—their threat is pumped up by their rhetoric (which may be sheer ritualism), and they may be incapable of carrying it out. On the other side, an anti-leftist movement may be successful at generating emotional hysteria about the alleged threat—one of the main tactics in conservative crackdowns. Property threat from the Left is not always a myth; but at the moment of conflict it is hard to judge how serious it is, and hence there is a large element of social construction, via IRs, even in negative interests.

To summarize: material interests do not simply exist and thereby drive struggles among classes and interest groups. They must always be socially formulated, in words

and symbols; and this is done when IRs are successful in generating more focus of attention and more shared emotion around certain ways of construing interests than other ways. Not to say the material world doesn't exist; human bodies, the numbers of people who take part in one ritual camp or another, weapons, vehicles, money, and all the other economic and technological resources make a difference in how the action is mobilized, and who wins. But it all has to go through the eye of a needle, which is the social definition of what we perceive our interests to be, and that is done by the degree of emotionally shared focus in IRs. Material resources are inert and blind until they are put in action by focused networks of humans in full emotional/cognitive communication. Various ways of organizing and focusing IRs are the key to political action.

Situations of violent conflict hinge on stalemate or dominance in an emotional attention space

Let us now briefly apply this analysis to conflict situations, especially violence (Collins, 2008). The micro-sociology of violence has advanced in recent years, through the same kinds of research techniques as the sociology of emotion. We now have videos of violent situations, from mobile phones and CCTV security cameras, from news photographers covering riots and wars with telephoto lenses; at the same time ethnographers have become more and more intrepid, living in the midst of violent gangs and interviewing and observing the most violent criminals, football hooligans, the police, and combat soldiers. On the theoretical level, we have cut through a number of myths about violence; and by focusing on crucial details of micro-interaction, we have been able to advance a theory of what causes violence to take particular forms, and including when it fails to happen.

A chief finding concerns emotions. Anger, as we might expect, is often seen at the beginning of a conflict situation. But when it comes to the moment of violence, what we see on photos and videos is not anger, but expressions of fear and tension on the faces and bodies of the participants, especially the attacker. I have called this emotion *ct/f*—confrontational tension/fear.

Our folk theories assume that violence is simply a matter of acting out anger, and hence the cause must be further back, in the conditions that made someone angry, the cultural interpretations that produced an offense; and perhaps in the personality unable to restrain one's anger. But this is not what happens in micro-interactional reality. Anger is chiefly bluster: it is a performance, at attempt to scare the opponent into submission, an attempt to dominate the situation. Often this bluff is successful; and in most of the ethnographies or video sequences I have examined, the conflict will stop there. Like everything else in the realm of IRs, violence can succeed or fail; and most of the time it aborts. We see this particularly clearly if we avoid sampling on the dependent variable—i.e. if instead of confining ourselves to cases where the violence has already broken out, we collect as wide a sample of conflictual encounters as possible; most of them end without violence;

this is true both of personal quarrels as well as collective actions like demonstrations (Nassauer, 2012).

This can be explained by a theoretical principle: the action of carrying out violence against another person whom we are in an IR with, comes up against an emotional barrier of *ct/f*. The strongest interactional propensity is to stop the violence, unless some pathway can be found that circumvents the barrier. *Consciously*, people may want to commit violence; *unconsciously* they find this difficult to do (see Collins, 2008).

Stopping the violence is not the same thing as stopping the conflict. The emotion of anger can continue on; a typical way for a fight to stop is for one person to stomp away angrily and slam the door, and for both persons to continue angrily cursing at each other as they leave. Anger is an easy emotion, provided that it stops short of violence. But angry people change to a different facial expression at the moment they hit someone or shoot at them—if they can get that far.

How can someone circumvent the barrier? One way is to attack from a distance—firing a gun at long range, better yet sending a plane, drone, or a rocket, or by hiding an explosive under the roadway. To repeat the theoretical principle: the action of carrying out violence against another person *whom we are in an IR with*, comes up against an emotional barrier of *ct/f*. One pathway around this emotional barrier is *not* to get close enough so that you are in an IR with your opponent; do not get close enough so that micro-messages of voice and body—and above all contact with their eyes—can generate *ct/f*. Why would the attempt at violence generate *ct/f*? The micro-theory of violence here meshes with IR theory. IR theory says that persons who are in a mutual focus of attention tend to become rhythmically entrained with each other, and hence to feel intersubjectivity and solidarity. But violence is an attempt to impose a rhythm that the other person resists; violence (at least at close range) is action at cross-purposes. The tension that arises, then, comes from attempting to go against the main tendency of an IR. The threat of violence strongly focuses everyone's attention, one of the ingredients of an IR; but the natural consequence, mutual entrainment, is countered by the struggle to dominate and cause harm. That is why violence is such a strain; and why most conflictual situations abort. And even when violence is unleashed, it is usually incompetent—most shots miss at close range, and the closer the range the more they miss.

Confrontational tension/fear is a collective emotion: a shared feeling of tension that characterizes situations where persons threaten violence on each other. It constitutes an emotional attention space, perhaps the most intense and inescapable of all situations of collective emotion. On the whole, violence does not proceed unless this situation of mutually focused emotion can be turned into an asymmetrical IR.

I will give a simplified version of the micro-situational pathways that circumvent the barrier of *ct/f* and allow violence to proceed. The most important are: (1) finding a weak victim, and (2) audience support. The latter of these removes the conflict between the antagonists from the center of attention; instead, entrainment between a fighter and his or her supporting audience imposes a larger IR upon the situation, using the audience's emotional solidarity to energize the fighter while defocusing confrontational tension and fear.

The other main pathway, (1) finding a weak victim, needs further explanation. A weak victim is above all weak emotionally. In most gang fights, and in riots, what we see in photos and accounts is a fight in which a small group, usually three, four, five, or six persons, gang up on a single, isolated victim. Six to one is the most dangerous ratio in the world of social mathematics, since a cluster of this size generates overpowering emotional solidarity against a victim who has no support and usually no thought except trying to evade the attack. But given even a single supporter, so that it becomes six-against-two, or even ten-against-two, the smaller group often is able to fight back, repelling the attackers until they give up and go in search of an easier target. The key point here, in the dynamics of situations, is that *first* one side establishes emotional dominance; physical damage follows, *second*. This goes contrary to our materialistic assumptions that one side loses because they are beaten down, suffering more damage and more casualties until they lose. But the micro-sequence as we observe it shows the other way around: emotional dominance happens first, and little or no physical damage typically occurs up to that point; it is after one side is emotionally beaten that they take most of the casualties. This pattern is shown too in larger conflicts such as riots, military battles, and in genocidal massacres (Klusemann, 2012).

Research applications of interaction ritual theory

The theory of IRs has been used to analyze a variety of empirical settings.

Of particular importance are the conditions for when a ritual succeeds or fails. Rossner (2011, 2013) shows that restorative justice (RJ) conferences, in which a criminal perpetrator is brought together with his/her victim and their supporting networks, when they are successful produce feelings of shame and regret on one side and forgiveness and reconciliation on the other; but RJ conferences also can fail, generating only superficial formal apologies. The difference is in the sequence of emotional build-up and group focus, indexed by voice tones, body postures, and mutual alignment or disalignment. RJ conferences are a useful tool for preventing recidivism, but only if the micro-mechanisms work (see also Maruna, 2011; Páez & Rimé, Chapter 14, this volume). Summers-Effler (2010) shows that the core groups that sustain social movements can suffer burn-out and alienation from the organization, but sustain themselves to the degree that they have a repertoire of IRs specific to their own organization that successfully bring intense shared emotions. Particular kinds of social movement organizations, for instance Catholic Workers dedicated to living with the poor, or a movement to abolish the death penalty, focus on different emotions and thus generate distinct emotional tones. This is in keeping with the pattern analyzed by von Scheve (2012) in which different social units maintain distinctive patterns of emotional solidarity and thus cultural boundaries.

The mechanisms producing intense IRs have been studied in contemporary religious practices, not surprisingly given the Durkheimian origins of the theory (Barone, 2007). Different styles of churches have varying success in the religious market, not only by offering superior religious goods as conceived by rational choice theory, but specifically by offering more successful IRs (Baker, 2010); a pattern particularly strong in contemporary,

innovative mega-churches (see also Knoblauch & Herbrik, Chapter 24, this volume). The mechanisms of micro-synchronization of bodies in singing shows this process in detail (Heider & Warner, 2009). Micro-sociological methods further reveal differences among various kinds of religious groups, and the specific features of religious IRs that distinguish them from secular rituals (Collins, 2010).

Micro-research on classroom behavior, using video recordings and close observation, show that teaching is most successful when students generate closely attuned IRs focused on learning particular materials (Haslett, 2007; Milne & Otieno, 2007; Olitsky, 2006; Smardon, 2004). This is important for macro patterns of stratification because the Bourdieu lock-step of reproduction of cultural capital within the same social class from one generation to the next can be broken, when successful rituals take place on the micro level.

Organizations which have particularly effective work-teams are those that generate local IRs that unite the group in a high level of emotional energy around a shared goal. Parker and Hackett (2012) refer to these as “hot spots and hot moments” that constitute the emotionally galvanized centers of innovative scientific movements. Vertesi (2012) stresses the importance of EE in sustaining the commitment of a high-tech scientific team (in this case coordinating the movements of robot exploration on other planets); robotics may be the wave of the future but an important aspect in their successful use is entraining the emotions of humans. Other research focuses on the importance of emotions in business management, and on the micro-interactional mechanisms that produce it. The most advanced militaries, of the US and UK, use elaborate rehearsals for combat teams, including training exercises in which troops coordinate their steps, eyes, and weapons like dance teams (King, 2006); soldiers enjoy these forms of training more than traditional drills, because they are more emotionally involving; and they generate solidarity through successful IR even when the individuals are not personal friends. Thus solidarity does not depend on prior selection for social background, but can be flexibly created in the sequence of micro-situations.

Finally, the question has often been raised about the importance of close bodily co-presence for a successful IR. Collins (2004) argued that interaction mediated by telephone, Internet, or other distant media, are weak in producing emotional amplification and micro-rhythmic entrainment, and thus generate less solidarity and EE. Ling (2008) analyzes the social patterns of mobile phone users and concludes that they produce medium-strength “mediated ritual interaction;” the most frequent links by phone are among persons who also meet face-to-face, and mediated links help them keep up ties that are most strongly enacted by coming together. As electronic media in the future become more sophisticated in transmitting or creating mutual shared rhythms, we may see a world in which the techniques of micro-sociology become incorporated into mechanical devices.

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Chapter 21

Religion, ritual, and collective emotion

J. David Knottnerus

Oklahoma State University

Collective emotions have many social functions. While oftentimes shared emotions play a crucial role in the integration of different social groups and communities they can also be involved in social conflict and the destructive forces that shape societies. Groups influenced by collective emotions include religious organizations, religious movements, and various cults. But collective emotions can also play a powerful role in many other non-religious groups. How this happens is especially evident in approaches emphasizing ritual dynamics and collective emotions. In that spirit this chapter addresses work I have conducted dealing with ritual and emotions.

More precisely, recent attention has been directed to how special collective ritual events influence people's collectively shared emotions and commitment to a group. I address this issue in a theoretical model which focuses on the emotional dimensions of such collective occurrences (Knottnerus, 2010). Framed within this discussion "collective emotions" refer to emotions that vary in their type, strength, or intensity and are shared by actors in special ritual collective events.

Before going any further we should appreciate that special collective ritual events are extremely common, occurring throughout history and in societies around the globe. Examples include ceremonies found within the myriad religions practiced by human beings, political rallies, military celebrations, commemorations of important historical events, community festivals, ethnic group festivals, various sporting events ranging from soccer matches or basketball games to the Olympics, weddings and receptions, pep rallies, retreats, special group activities within bureaucratic organizations such as corporations or governmental agencies, and religious, civic, nationalistic, or military holidays (for a theoretical discussion of public ritual see Etzioni, 2000). Furthermore, as will later be discussed, such events can vary enormously in size, can occur at different levels of the social order, and can be of significance for both large and small scale dimensions of society.

To address these issues, the chapter will describe what a special collective ritual event entails; the "structural ritualization theory" which provides the analytical basis for the discussion presented in this chapter; the theoretical model of emotional intensity and commitment in collective ritual events; a discussion of collective emotions and ritual in

society involving both theoretical implications and applications of the ideas presented here, and finally present some concluding remarks.

Special collective ritual event

With that said it is possible to more clearly delineate what is meant by a special collective ritual event. Four characteristics of such events will be described followed by a brief recognition of certain scholars who have influenced the formulation presented in this chapter dealing with collective events and the emotional states of group members.

First, such events involve multiple participants. Actually, there is normally a shared expectation among actors that such occurrences are collectively engaged in. Furthermore, the number of individuals engaging in such events can greatly vary. They can range from a few individuals to tens of thousands (or more) of people. While not formally addressed in the present discussion it is also possible that a single person may engage in activities related to the collective episode. For instance, an individual who is isolated from others (e.g., a prisoner in solitary confinement) may celebrate the event and enact a modified version of the ritual.

Second, collective episodes occur in a regularized fashion. Typically they are enacted on a recurring basis. For example, they may be performed on an established time schedule or their performance could be linked to other social events, such as a christening or baptism occurring at a particular age or a military celebration signifying the completion of a training program and being accorded a new rank and status.

Third, collective events involve stylized activities. Whether involving one activity or an assortment of practices, collective rituals involve people engaging in behaviors that are to varying degrees identifiable because of their distinctive form, e.g., religious styles of prayer or worship, dancing, singing, marching, or swearing oaths.

Fourth, this type of social event is clearly delineated and separated from everyday social practices and occurrences. The nature of this separation can be quite sharp involving, for instance, guidelines and instructions along with spatial, temporal, and visual cues that specify where, when, and how the collective ritual should occur and even the meaning and importance of the event. The event is viewed as a unique social practice removed from daily social life.

Before discussing how special collective events characterized by these features affect people and influence the emotional state of individuals and their dedication to a group, I should stress that this formulation is influenced by and indebted to various scholars. They include Durkheim (1915/1965), Collins (2004), and Allan (1998), the latter two having focused in varying ways on Durkheim's concept of collective effervescence. Also, work in social psychology is especially significant. For instance, Thibaut and Kelley (1959) emphasized (although differing in their theoretical approach and the problems focused on in this chapter) how group interaction is influenced by the interdependence of actors (see also Irwin, McGrimmon, & Simpson, 2008). Also important is theory and research by Lawler, Thye, and Yoon (2008, 2009, Chapter 13, this volume) who have shown how social

exchange can generate positive emotions which strengthen group bonds and cohesion. Finally theory and research, to be discussed later, addressing legitimacy and endorsement and the role of emotions in groups contributes to the formulation discussed here.

Structural ritualization theory

“Structural ritualization theory” (SRT) builds upon a body of theory and research, which focuses on the role symbolic rituals play in social interaction and the development of social structure (Knottnerus, 1997, 2005, 2011). SRT rests on the assumption that daily behavior is characterized by an assortment of social and personal rituals. Ritualized actions help create stability in our lives while expressing various meanings that give significance to our behaviors.

Because of the centrality of rituals in human behavior ritualized practices contribute to the patterning of everyday activities and interaction in numerous social settings, thereby, structuring group dynamics. Such regularized practices are found throughout social life and can include ritualized forms of interaction within different subcultures, institutions, and groups of varying size such as religious groups, the work place, youth groups, health care facilities, family gatherings, and sporting events.

The assumption that rituals are crucial to human behavior and comprise much of the taken for granted daily lives of people is consistent with the arguments of various scholars including Durkheim (1915/1965), Goffman (1967), Collins (2004), Berger and Luckmann (1966), Giddens (1984), Douglas (1970), and Turner (1967). The theory differs from most of these and other perspectives, however, because it among other things provides more formal definitions of rituals and focuses on patterns of ritualized interaction that occur in both secular and sacred milieus.

SRT has progressed to the point in which several lines of theory development and research using very different types of evidence are being carried out. Most of this research is concerned with: deritualization, i.e., disruptions to personal and social rituals, their consequences, and how people may adjust to such experiences (Bhandari, Okada, & Knottnerus, 2011; Knottnerus, 2002; Sarabia & Knottnerus, 2009; Sell, Knottnerus, & Adcock-Azbill, 2013; Thornburg, Knottnerus, & Webb, 2008; Wu & Knottnerus, 2007); reproduction of ritualized behaviors and social structure among groups (Knottnerus, 1999; Knottnerus & Berry, 2002; Knottnerus & Van de Poel-Knottnerus, 1999; Sell, Knottnerus, Ellison, & Mundt, 2000); identity construction and ritual (Guan & Knottnerus, 1999; Minton & Knottnerus, 2008; Sen & Knottnerus, 2012); the enactment of ritualized practices in organizations and communities (Knottnerus, Ulsperger, Cummins, & Osteen, 2006; Ulsperger & Knottnerus, 2007, 2008, 2009, 2011); strategic ritualization and the role of power (Edwards & Knottnerus, 2007, 2010, in press; Guan & Knottnerus, 2006; Knottnerus & LoConto, 2003); ritual dynamics involving social inequality, distinction, and exclusion (Minton & Knottnerus, 2008; Mitra & Knottnerus, 2004, 2008; Varner & Knottnerus, 2010); and applied research which is partly focused on social policy and interventions (Lin, Guan, & Knottnerus, 2011; Ulsperger & Knottnerus, 2007, 2011).

A key concept used in all of this research is “ritualized symbolic practice” (RSP) which is defined as an action repertoire that is schema-driven (Knottnerus, 1997). The more recent formulation focused on emotional intensity and group commitment (Knottnerus, 2010) requires that the emotional component of a practice also be included in the definition of an RSP. A revised definition of an RSP is that it is an action repertoire that is schema-driven and emotion-laden. This concept refers to standardized social behavior that is grounded in actors’ cognitive maps or symbolic frameworks with emotional content. Finally, attention is here directed to domains of interaction in which actors collectively engage in special collective ritual events (involving RSPs as just defined) which at least part of the time involve face-to-face interaction.

Emotional intensity and commitment in collective ritual events

This section presents the key arguments of the new theory concerned with emotions and commitment to groups (Knottnerus, 2010). Four factors play a major role in this formulation.

Shared focus of attention

The shared focus of attention of actors in a collective event refers to the degree participants’ attention is directed to certain objects. Objects that are the focus of actors’ perceptions can differ including, for instance, action sequences, physical objects, individuals, or symbols within the collective episode. The shared focus of attention of people in a collective event can range from a lack of attention to extremely high levels of focus, awareness, or concentration.

The greater the common focus of attention the more intense the collective emotions experienced by actors in the collective experience (as indicated by studies of the British Coronation, Shils & Young, 1953 and various public events in American communities, Warner, 1959). In the collective experience the object of shared attention becomes the intentional object of collective emotion. Furthermore, the nature of these collective emotions can greatly vary depending on what is focused on, e.g., a minister who inspires feelings of reverence versus a political leader who encourages hate. They can range from shared feelings of joy, pride, or hope to anger or disgust.

Both characteristics of actors and situational factors can influence people’s attention span. For instance, personal qualities such as individuals’ inability to apprehend their environment due to mental impairment or distracting physical activities may limit one’s focus of attention. Physical arrangements, the orchestration of the event, and use of technology can also influence the extent to which group members are focused on the collective occasion and particular aspects of it.

Consider, for instance, how at a university reception or a wedding reception people are often distracted by friends and acquaintances, conversations with those around them, waiters, etc. so that their attention to the speaker or newly married couple is more

sporadic in nature. In contrast, due to the physical layout and qualities of a speaker, people may find themselves captivated by a magnetic and passionate preacher during a religious service conducted in their church or a powerful speaker at a political rally. Particularly well-known examples of the latter kind in the twentieth century were the Nazi Party Congresses conducted in Nazi Germany where Hitler stood alone on a stage and delivered his speeches through a carefully prepared speaker system while spotlights were shone in an orchestrated manner (Burden, 1967). The structuring of activities and the location of Hitler in this carefully designed site clearly directed participants' focus of attention to their leader.

Another example from ancient history are the Roman arena games where the crowd's attention was highly focused not only on the various actions occurring in the pit including animal hunts, executions, and fights between gladiators but also at particular points in the spectacle such as the appearance of the sponsor, the opening procession, when gladiators appealed for mercy and victors were awarded (Fagan, 2011).

Interactional pace: rate of interaction and rhythmic motion

The interactional pace of a ritual event refers to the degree to which actors are engaged in a sequence of interconnected acts and the nature of the repetitive or recurring acts. Interactional pace is a product of both: (1) the rate of interaction and (2) whether there is a rhythmic motion to their physical movements in the interaction sequence (Allan, 1998).

More specifically, rate of interaction refers to the frequency with which people interact. It deals with the speed or pace of the acts in the interaction sequence. Great differences from seconds to even microseconds can exist in the rate of acts that occur between people in a collective event.

Rhythmic motion denotes whether and to what degree physical movements in the social interaction recur in a constant manner (Collins, 2004; Condon & Sander, 1974; Wiltermuth & Heath, 2009). While some actions in ritual events may not exhibit such a rhythmic character, others may to differing degrees recur in a regularized manner, i.e., physical movements exhibiting a regularized and patterned quality in which the actions of different individuals complement and coordinate with each other.

For example, the rate of interaction in a civic ceremony or a holiday event may occur at a moderate or even somewhat slow pace as uninspired speakers mount the stage and plod through their predictable lines. On the other hand, occasions such as protest rallies or some religious services may be marked by a much quicker turn of events as speakers quickly replace each other building up to the main political or religious presenter, speakers constantly encourage the audience to express their feelings, and music maintains the quickened tempo of the occasion. Moreover, people in some collective events may exhibit little or no rhythmic quality in their bodily movements. On the other hand, some collective occurrences may find people engaging in quite distinct rhythmic behaviors as individuals sway together and raise their arms in unison during a church service or respond in a coordinated manner to the urgings of a political leader or chant together at a sporting event or the ancient Roman arena games.

Increases in the interactional pace influenced by either the rate of interaction or rhythmic motion intensify the collective emotions shared by actors in the ritual episode. Examples of such ritual dynamics range from the vigorous and carefully coordinated body movements which were at the heart of massive gymnastic displays in the Soviet Union (Lane, 1981) to raves where highly rhythmic, long-term, and moderately to high paced repetitive dancing and music creates feelings of pleasure and interpersonal connectedness (Takahashi & Olaveson, 2003).

Interdependence: actors' contributions and complexity of actions

The interdependence of actors focuses on the relative occurrence or distribution of acts by participants in the ritual event on the one hand and how differentiated the actions are that are required to carry out the collective episode on the other hand. This factor involves two dimensions.

The interdependence of actors denotes the degree to which people may or may not be equally (1) contributing to the ritual performance. At one end of the continuum, pronounced inequalities may exist in the extent to which actors participate in the ritual event. One or a limited number of individuals may actually engage in the ritual performance while all the others passively observe the action. In contrast, all those who are present may fully participate in the collective ritual performance.

The interdependence of actors also involves (2) the level of complexity of different actions involved in the ritual occurrence. There may be only one or several activities in which group members need to engage to conduct the collective event. On the other hand, a much larger number of activities may be needed for the successful enactment of the collective endeavor. The episode may exhibit to varying degrees a more complex and differentiated character with people engaging in various kinds of practices as they work together to produce the collective event.

Examples of individuals unequally contributing to a collective ritual might involve a religious assembly or political gathering where the audience is totally passive and not involved in the performance, simply observing a religious leader or political figure. Conversely, examples of actors more equally contributing to the ritual event would be a religious service where everyone collectively recites, prays, sings, and rejoices together or a military ceremony where all participants march, drill, salute, and/or swear oaths as a group. The more actors actually participate in the collective episode, i.e., the more they are equally involved in the collective experience, the greater the emotional effect of that event on those persons.

With regard to the level of complexity of actions occurring in collective events the previous examples of ritual episodes involve fairly limited kinds of behaviors, i.e., recitation/praying/singing or drilling/marching/pledging. Alternatively, a collective episode may involve numerous practices, which are essential to the production of the ritual event. Examples would include large-scale, carefully planned religious ceremonies or political rallies. Here actors may engage in many different practices, each of which is vital to the

event whether they involve, for instance, different persons speaking, praying or swearing oaths, playing music, walking in a procession or marching, singing, performing dances, swaying together, or other types of physical movements and exercises, carrying banners and logos, driving vehicles, flying planes, or operating lights, visual effects or other technological equipment (e.g., a mega-church service, mass demonstrations in North Korea or the former Soviet Union, the Nuremberg rallies in Nazi Germany).

The greater the number of activities required for the collective performance and, therefore, the higher the level of complexity of different actions, the greater the feeling of collective contribution to and shared dependency among actors in the collective experience (Lawler et al., 2009). Such a condition results in actors having an enhanced sense that they are making a valuable contribution to and are co-participants in a collective enterprise which represents a major accomplishment and is of significant import and magnitude. What results is the heightened impact of the event on people's emotional states such as pride, awe, triumphant, jubilant, happiness, satisfaction, or content. Stated more generally, greater interdependence (involving actors' contributions and the complexity of actions) means that people experience different forms of satisfaction because they feel more integrated into groups.

Resources

Lastly, the presence or absence of resources is quite significant. Resources are materials available to actors that are needed to engage in RSPs. This factor stresses the importance of resources for enacting ritualized activities including collective events. Additionally, a distinction is made between two types of resources: human and non-human resources. Human resources refer to the abilities and characteristics of actors that group members perceive to be of value (or have utility) for themselves or the group. Non-human resources signify all that is not human that group members perceive to be of value (or have utility) for themselves or the group.

Many kinds of human resources such as the mental, physical, and interpersonal skills of individuals and the number of people present are crucial to the enactment of collective episodes. Most likely the most critical human resource is the extent to which actors are *co-present* or visible to each other (Allan, 1998; Collins, 2004). Ritual occurrences can differ in the degree to which individuals are conscious of each other's involvement in the collective episode. The more all persons participating in the event are visible to and cognizant of each other, the greater people's awareness that they are part of the collective effort and the greater the effect of the shared activity on them, i.e., the feelings they have about the collective event. An example of such an emotionally and culturally significant practice would be the Native American powwow where the co-presence of actors is accentuated because dances usually occur in a circular manner (Knottnerus, 2011).

This effect involves to a large extent legitimization processes. The more individuals are conscious of each other's involvement in the event, the greater the perception that a consensus exists among participants in the collective episode. The greater the degree to which a consensus exists among actors, the higher the level of endorsement (as one

form of legitimization) or support from one's peers in the ritual event (Johansson & Sell, 2004; Dornbusch & Scott, 1975; Walker et al., 1986). In essence, the more awareness of consensus or support from others co-presence in an event creates, the greater the sense of social validation among participants which results in increased feelings of satisfaction and assurance about the collective experience. More generally speaking enhanced co-presence results in greater ties to and commitment to the group.

Of course, many types of non-human resources can also impact the production of a collective event. Numerous props such as food, furniture, weapons, musical instruments, vehicles, costumes, banners, pictures, noise makers, or bodily ornamentation may be required to conduct a ritual performance. And the physical layout in which the event occurs can be extremely important because the setting may to varying degrees facilitate the enactment of the collective activity. For instance, compare a simple open field in which a large religious service, wedding, or political gathering occurs to a carefully designed edifice such as an arena that provides a large number of people a clear and very focused view of speakers, performers, and the audience (e.g., amphitheaters used in ancient Roman games which directed the crowd's attention to the center pit, while enhancing a sense of co-presence due to the visibility of spectators to each other).

Moreover, aspects of the ritual event may be facilitated through the use of technology as in the case of large religious services such as those taking place in mega-church auditoriums. Here audio systems and television screens may be used to direct individuals' attention to key participants and activities while repeatedly showing members of the audience taking part in the event, thereby, heightening actors' feelings of co-presence (see Knoblauch & Herbrik, Chapter 24, this volume).

Overall, these four factors and their components can vary. Taken together they influence the emotional intensity of people in a collective episode.

Emotional intensity

Emotional intensity refers to the strength of emotions generated by these four factors and their components. Of course, the nature of these emotional states may differ depending on the nature of the ritual event (e.g., religious, recreational, familial) and the situation which can be effected by physical, historical, structural, cultural, and other conditions. Generally, these ritual dynamics can lead to emotional states such as being aroused, astonished, excited, delighted, pleased, satisfied, happy, reverent, in awe, glad, exhilarated, at ease, relaxed, calm, anger, fear, or disgust (Ekman and Friesen, 1975; Kemper, 1987; Russell, 1980; Turner, 2002).

Finally, I argue that increases in collective emotional states, i.e., emotional intensity, results in heightened commitment to the ritualized activities enacted by people in collective episodes and the symbolic themes or beliefs expressed in these practices. Emotions such as pleasure, excitement, arousal, happiness, contentment, anger, or disgust enhance actors' fervor, commitment, and devotion to the ritualized actions and beliefs of the group during the event. This condition then affects the dedication and loyalty of individuals to the group and ultimately social bonds and integration. Enhanced commitment

to practices during the collective event results in enhanced devotion to the group and strengthened social relations.

In sum, the intensity of actors' shared emotions and their resulting dedication to ritualized practices, beliefs, and the group are influenced by four factors and their components: (1) shared focus of attention, (2) interactional pace, (3) interdependence of actors, and (4) resources. As these factors increase, the higher the emotional intensity which enhances commitment to shared ritualized practices and beliefs about the collective event, which in turn influences commitment to and integration in the group, i.e., social ties and cohesion among group members.

Collective emotions and ritual in society

The emotional and ritual dynamics addressed by this theory can occur in many different group settings, past and present, ranging from religious ceremonies, holiday events, commemorative occasions, rallies (political or otherwise), or Native American powwows to sports extravaganzas, civic celebrations, festivals, parading, and large-scale community processions. Moreover, this perspective has a number of implications for the analysis and study of the social functions of collective emotions. Several issues deserve brief attention most of them involving recent topics addressed by the SRT and research projects in varying stages of development. The first theoretical issue focuses on ritual dynamics at different levels of society while the other three topics address applications of the theory involving strategic ritualization, ritual and persecution, and the re-creation of rituals.

First, ritual dynamics can operate at different levels of society. In this regard I recently outlined a six-level (micro to macro) model of the social order and ritual dynamics. The levels of social structure are: relationships, networks, intraorganizational relations, inter-organizational relations, societal stratification, and the world system (for a more extensive discussion see Knottnerus, 2011). As we move from the level of relationships to the world system, the number of social ties goes from few to many, complexity expands, and the scope of effects grows from a narrow to a wider range.

This scheme also provides a framework for understanding how rituals can operate at different levels of society and practices found in a specific context can impact the rituals that develop in different structural levels and settings. More precisely, ritualization processes can spread from micro to macro levels and macro to micro levels, i.e., the inter-level transmission of rituals throughout the social order, or can operate within the same level, i.e., the intra-level transmission of rituals.

Special ritual events involving collective emotions can also operate at different structural levels and influence social processes occurring in different parts of society. For instance, individuals periodically attending special (small) group gatherings marked by strong collective emotions such as motivational meetings, retreats, award ceremonies, or training sessions within business organizations could strengthen workers commitment to the entire organization. As workers return to their workplaces these strengthened attitudes and motivations could then permeate the wider culture of the organization. Similar dynamics might also be found in a church where participation in special small group

activities marked by strong emotions such as prayer groups or volunteer work groups strengthens the dedication of actors to the religious body as a whole.

A very different example would involve large-scale sporting events such as the Olympics which occur at the global level and generate collective emotions shared by participants, spectators, and media viewers. These intensified emotional states and commitment to the event and beliefs associated with it can spread both globally across societies and even within societies as they are transmitted from the most macro level to more micro levels impacting sports organizations, city governments, economic enterprises, and ultimately the social and personal lives of individuals (e.g., those who become motivated to participate in or follow different athletic activities). A final example would involve political leaders and groups in authoritarian or other kinds of political systems sponsoring nationwide, emotionally charged, large-scale collective events which influence the views of ordinary citizens about the legitimacy of and their commitment to the political order.

Second, groups can sometimes engage in “strategic ritualization” in which people utilize ritualized practices in a purposive, calculating manner to achieve certain outcomes such as self-aggrandizement, power, legitimacy, or projecting an identity (Knottnerus, 2011). In a like manner groups can employ “programs of ritualized symbolic practices” which are collections of RSPs strategically used to achieve certain objective(s). These practices can vary in their nature, number, frequency, and complexity. And groups can differ in terms of their organizational structure which can greatly influence how and to what degree they can carry out a program of ritual practices. Ritual programs can also include special ritual events which generate collective emotions. The deliberate use of such collective episodes can be aimed at enhancing people’s commitment to the group sponsoring these practices and the beliefs it seeks to promote.

In this regard, studies of the *Orange Order*, a religious/political organization in Northern Ireland, have examined how this group enacts thousands of ritual events such as parades each year which enable it to achieve a number of goals including increased status and power (Edwards & Knottnerus, 2007, 2010). Future research will specifically focus on how this program of ritual events also generates collective emotions which sway group members. Another current research focuses on the Khmer Rouge of Cambodia who carried out mass genocide in their country while conducting a politically sponsored program of social control over the remaining populace. Findings indicate that part of this program involved the use of ritual events such as dances, plays, and music which inspired collective emotions and effected to varying degrees children, adults, and members of the Khmer Rouge itself (Delano & Knottnerus, 2013). Other possible examples include repressive regimes that have employed rituals and emotions to further their cause in a similar manner to present North Korea where mass dances, political/military celebrations, and other collective events help define the social landscape.

A third topic focuses on ritual and persecution, especially extreme large scale persecution such as the religious wars in sixteenth-century France, the holocaust, the French revolution, conflict between Christians and Moslems (past and present), or Hindu and Moslem conflict in contemporary India. I suggest that ritualized practices can express

moral beliefs, in particular evaluative beliefs about the moral purity or superiority of a group in relation to the moral impurity or inferiority of another group, which contribute to social persecution (Knottnerus, 2013). Collective emotions generated in special ritual events can fuel people's commitment to these beliefs and the groups whose members they are while strengthening their hatred of others and increasing acts of cruelty directed toward them.

Furthermore, ritual practices involving collective emotions and moral meanings can be found in different phases of social persecution. "Pre-persecution rituals" contribute to the persecution of a vilified group and instigate such behavior. With "ritualized persecution" the acts of persecution become literally ritualized or regularized. Finally, "post-persecution rituals" occur after the acts of persecution, and they celebrate and affirm such actions. A host of ritual events can be involved in all three phases ranging respectively from religious sermons, singing, or parading to executions serving as ritualized spectacles of purification or people gathering to observe the persecution of others for entertainment to parties, banquets, or mass rallies which glorify the oppression of a despised group. Future work will explore in much greater depth the ways emotions, rituals, and moral beliefs can play a crucial role in social persecution.

Finally, I would argue that the re-creation of rituals, some of which involve collective emotions, can help people to cope with disruptive situations which lead to "deritualization" or the breakdown and loss of previously engaged in ritualized activities that occur in daily life. On-going research is examining one type of disruption, scientific and military expeditions in the nineteenth and twentieth centuries, which is of a long-term nature, involves extreme isolation, and is highly stressful (Knottnerus, Johnson, & Mason, 2013).

Findings indicate that several ritualized practices including special collective events and shared emotions helped expedition crews to cope with their situation. By helping them to adjust to their circumstances these rituals enhanced social harmony, communication, cooperation, and interpersonal relations among crew members. In other words, they contributed to the morale and social cohesion of these groups. On the other hand crews who did not engage in such practices were oftentimes subject to poorer group morale, weakened relations, greater conflict, and much less cohesiveness. The various collective ritual events engaged in included religious services, singing of hymns, praying, holidays such as Christmas which sometimes possessed a religious quality, singing of carols, celebrating anniversaries, birthdays, or accomplishments of the expedition, dedications, special meals, and so on. Both religious and non-religious ritual events involving powerful collective emotions contributed to the spirits of the crew and group integration.

Conclusion

Collective emotions influence many different social processes and arrangements. In this chapter particular attention has been given to how several factors operating in collective ritual events contribute to the development of shared emotional states and commitment to groups both religious and non-religious in nature. Future studies such as those described in the previous section will focus much more on how emotions and ritual play a

crucial role in social life. And attention will be given to further development of the theory presented here considering, for instance, how the dynamic versus static nature of rituals can influence feelings of arousal and satisfaction and the formation of collective emotions and ties to a group (I am indebted to Yanhong Wu for this insight). These efforts should contribute to a growing body of research concerned with the social functions of collective emotions.

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Chapter 22

Political emotion

John Protevi

Louisiana State University

The essay has two aims: to review some important areas of current work and to present a sketch of original research in the field of political emotion. In the review sections I look at two aspects of current work: how major theoretical issues are treated and what fields of study are covered. I first review recent work on three essential conceptual issues: (1) individualism versus emergentism, (2) the interpersonal nature of emotion and the “scalability” problem, and (3) entrainment. I then review material in three important areas of work on political emotion: (1) the link of emotion and politics in the history of political philosophy (our brief treatment of classical work on this topic is the only departure from our focus on recent work); (2) contemporary work in feminist, “continental,” and cultural studies approaches; and (3) recent scientific studies of political emotion and on its relation to (American) electoral politics. In the presentation of original research, I sketch a case study of the training that produces the *esprit de corps* of military groups, whose ability to perform violent action is essential to political sovereignty as the monopoly on the legitimate use of force.

Important conceptual issues

Before we deal with political emotion as a species of collective emotion, we should briefly discuss the emergentist and individualist perspectives on the subject. The emergentists posit a collective subject underlying collective emotions, while the individualists claim that collective emotions are simply the alignment or coordination of individual emotions. For the individualists, an aggregate of individuals might have a common target and focus (terms defined later) of their emotional states, but any temptation to posit a collective subject in a strong ontological sense should be resisted. Wilson (2003) provides an important nuance here with his “social manifestation thesis” that maintains ontological individualism while requiring epistemological externalism: “Socially manifest psychological traits are the properties of individuals, but since they occur in certain group environments, they cannot be understood in purely individualist terms” (p. 301).

We can also note that writers on collective emotions have approached the issue from different philosophical perspectives. For instance, Schmid (2009) uses a phenomenological perspective to examine shared grief, while Huebner (2011) has a computationalist/representationalist perspective and uses notions of distributed cognition to argue for the

possibility of “genuinely collective emotions.” From a more-or-less “analytic” philosophy perspective, Tollefsen (2006) writes on the rationality of collective guilt.

We will define collective political emotion as collective emotion within a political context, such that a political event or issue is the target, but not necessarily the focus, of the emotion. Schmid (2009) reviews the standard terminology, codified in Helm (2001), in which the target of an emotion is its eliciting object, while the focus is that about which the emotional person is concerned; I can thus have a charging dog be the target of my fear, while the focus of my fear could be a group of children rather than myself. Thus a group of people could be angry about the inflation they expect to come from a particular government policy, but the foci of those fears might be the individual retirement plans of the angry people.

With regard to the emergentist versus individualist question of the subject underlying specifically political emotions, collective guilt has been studied by Gilbert (2002), Tollefsen (2006), and Konzelmann Ziv (2007). Gilbert (2002) proposes a “plural subject” legitimating the notion of collective guilt feelings; Huebner (2011) interprets Gilbert’s argument as supporting only a coordinative position rather than a truly emergentist one. Konzelmann Ziv (2007) advocates replacing Gilbert’s collectivism with an individualist “membership account” that nonetheless preserves the phenomenon of collective guilt, since it is individuals that undergo a “we-feeling” of collective guilt. Tollefsen (2006) seeks to link collective guilt to collective responsibility and atonement: “Without genuine emotion, so called, ‘political apology’ and ‘political forgiveness’ is just *politics*” (p. 238; emphasis in original).

Emotions as interpersonal processes and the “scalability” problem

A promising first move in a discussion of collective political emotion is to adopt an interpersonal perspective whereby analysis of emotional episodes looks at multiple (at least two) subjects. This move seems to require an individualist/coordinative notion of collective emotion, as what is at stake is the emotional episode as it develops between or among multiple subjects rather than fused in an emergent subject. Thus, orthogonal to the individualist/emergentist issue, the interpersonal perspective is often accompanied by a move away from a static perspective (what are the necessary and sufficient conditions for attributing an emotional trait to a subject?) to a processual perspective (when in the modulation of an ongoing emotional flow can we say a new emotion has consolidated?).

Here, we will take the situated (Griffiths & Scarantino, 2009) and enactive approaches (Colombetti & Thompson, 2007; De Jaegher & Di Paolo, 2007; De Jaegher, Di Paolo, & Gallagher, 2010) to affective cognition as agreeing that emotions are interpersonal processes. If we adopt the enactive standpoint that affective cognition is achieved in interactive processes encompassing brain, body, and world (including partners in interpersonal emotional processes), the enactivists would see the partners in an emotional process (the angry aggressor, the cringing victim) as constituted in the situation. However, this

constitution is never *de novo* but always structured by social position, so that, for instance, getting angry with a superior, equal, or inferior are all different emotional possibilities (Gross, 2006). With regard to the process aspect, the angry person and the object of the anger come to be and continually change in the ongoing process: the initial flash, the baleful glare, the taunting return glance, the escalation, the counter-move, the placation, the humiliating refusal to meet eyes, and so on.¹

The biggest question for us with regard to the interpersonal process perspective is whether it can be scaled up from a pair of opponents to the group level. If we accept scalability to the group level (whether the resultant emotion be seen as the property of an emergent subject or as merely coordinative among individual subjects), then we must pay attention to three interlocking axes in situations of political emotion: the “transversal” constitution of the opponents relative to each other (e.g., a group of police officers facing off with a group of demonstrators) must be seen in conjunction with the “horizontal” emotional bonds forming “the police” and “the demonstrators” as identity-groups (these horizontal bonds being constantly modulated by the transversal bonds); and finally the “adjunctive” relation of each side to bystanders, which can serve to strengthen or weaken both transversal and horizontal processes (Collins, 2008; Gorringe, Stott, & Rosie, 2012; Levine, Prosser, Evans, & Reicher, 2005; Reicher et al., 2007).

Finally, we should note that there is a continuum of conscious awareness and control in collective or at least interpersonal emotion, so we cannot assume the partners are always on equal footing. Consider the continuum from lack of self-control in infant emotional contagion to the one-sided control in various forms of emotional manipulation—from the rocking, petting, cooing, and face-making of caretakers trying to re-direct the emotional reactions of infants (Stern, 1985) to the complex negotiations of director and audience in the interspersing of fear and comic relief triggers in horror movies (Hanich, 2010); from the elaborate staging of nationalistic spectacles (Berghaus, 1996) to jealousy, anger, and guilt-trip “strategies” in domestic scenes (Solomon, 2008).

Entrainment

Let us consider the naturalist or materialist model of collective political emotions as provoked via processes of entrainment—groups share emotions by getting on the same “wavelength.” (Again, depending on one’s position on the individualist versus emergentist issue, the resultant emotion can be considered as the co-ordination of individual emotional experiences or as the property of an emergent group subject.) Two popular though reasonably rigorous books call attention to collective joy produced by the entrained movement of groups (McNeill, 1995; Ehrenreich, 2006). Neither McNeill nor Ehrenreich adduce much scientific backing, but this is understandable for reasons of date and genre. In focusing on entrainment we are looking to the temporal and interactive—the

¹ Collins (2008) provides excellent analyses of such twists and turns from his micro-sociological perspective.

rhythmic—dimensions of our biological and social being (Fuchs & Jirsa, 2008; Kelso, 1995; see also Collins, Chapter 20, this volume). The philosophical literature on entrainment is developing. A recent study (Tollefson & Dale, 2012) shows how philosophical accounts of joint agency have been top-down: using adult human models, they have shown complex intentional alignment. The authors call attention to research demonstrating the alignment of low-level behaviors such as body postures and conversational rhythms, so that they aim for a “process-based, dynamic account of joint action that integrates both low-level and high-level states” (Tollefson & Dale, 2012, p. 385; they refer to Shockley, Richardson, & Dale, 2009, among many other fascinating studies of low-level alignment).

An important angle here is the evolutionary origins of our entrainment capacities. One of the most interesting researchers of music and bio-cultural evolution, John Bispham (2005), writes: “music is a culturally constructed phenomenon built upon universal biologically determined foundations” (p. 47). The evolutionary pressures that have shaped the fundamentally rhythmic and social aspects of our being lead Cross (2003) to claim that “infants appear to be primed for music” (p. 15); in support of this, he cites important studies on rhythmic mother–infant interactions which are crucial for “primary intersubjectivity,” “emotional regulation,” and “emotional bonding” (Cross, 2003; citing Dissanayake, 2000; Trevarthen, 1999). In the same vein, Bispham (2006) classifies Dissanayake (2000) as looking for “the adaptive strength of rhythm and entrainment in the course of human evolution with reference to mother–infant interaction” (p. 125).

These early building blocks of musicality must come together to form our uniquely human rhythmic capacities. What distinguishes human music from bird song is that our music is dialogue, group activity, involving changes in response to changes by others (Bispham, 2006, p. 127). Thus a key capacity for investigation is entrainment, or group movement with the same pulse, which plays a major role in Bispham’s analysis; entrainment is based on “internal oscillatory mechanisms [which] are attuned to external cues allowing us to build expectations for the timing of future events...and to interact efficiently with the environment” (Bispham, 2006, p. 128). Since there are internal oscillatory mechanisms in a variety of domains of human behavior and cognition, Bispham (2006) claims that “entrainment in music constitutes an evolutionary exaptation of more generally functional mechanisms for future-directed attending to temporally structured events” (p. 128). Bispham (2006) pushes the analysis as far as to entertain the notion that “interpersonal entrainment is the key rhythmic feature in [all] human interactions” (p. 129), both musical and non-musical.

Regarding musical pulse, we have to remember that for almost all of human history, music has been danceable, which sets up its capacity for group bonding (Dissanayake, 2000; McNeill, 1995; Ehrenreich, 2006). How does danceability come about? Bispham (2006) points first to “internal periodic oscillatory mechanisms overlapping with motor-coordination” (p. 129). The key for us is his conclusion that this provides “a mechanism to affect and regulate levels of physiological arousal” (Bispham, 2006, p. 129). In other words, music allows groups to get on the same emotional wavelength: “MRB [musical rhythmic behavior] is primarily rooted in providing a temporal framework, collective

emotionality, a feeling of shared experience, and cohesiveness to group activities and ritualistic ceremonies”; indeed, “musical pulse is functional in regulating emotions and motivational states by means of affecting states of action-readiness” (Bispham, 2006, p. 131). It is important to stress that in an evolutionary perspective, music regulates group affect rather than being merely individually expressive: music is “functional in regulating emotions and in communicating strategies for the regulation of emotion rather than as raw emotional expression per se” (Bispham, 2006, p. 131).

A brief survey of current and classical work on political emotion

Revisiting the history of political philosophy

Echoing Kant’s dictum that the task of political philosophy is to design a system of justice so that even a race of devils would agree to be bound by it (Kant, 1970, p. 112), mainstream Anglophone political philosophy has long put the ability to appeal to rational egoist agents at the center of its project. The affective turn has reached political philosophy however, and we now see investigations into the way handling the emotions of rulers and ruled is at the core of the major figures of political philosophy (Kahn, Saccamano, & Coli, 2006; Kingston & Ferry, 2008).

To begin at the beginning, both Plato and Aristotle agree on the emotional core of character development and on the shared emotional dispositions of people raised under one political regime or another. For Plato, ethical development entails an emotional reaction prior to any rational justification (“the ugly he would rightly disapprove of and hate while still young and yet unable to apprehend the reason,” Plato, 1961, p. 646 (*Republic*, 402a)). For Aristotle the ethical virtues are constituted by the right disposition of emotions, and such dispositions are attained by consistent training of children’s emotional relation to pleasure and pain (Aristotle, 1984, p. 1744 (*Nicomachean Ethics*, 2.3.1104b10–13)). The widest context for the habitual development of ethical virtues is the customs and laws of the city, such that the character of the citizens is the most important task of the legislator (Aristotle, 1984, p. 1743 (*Nicomachean Ethics*, 2.1.1103b25), p. 2121 (*Politics*, 8.1.1337a10)).

Among the great early Modern thinkers, Hobbes (2004) famously emphasizes the role of fear in the state of nature in prompting the agreement to form the civil state—and fear of a return to the state of nature once in such a state. The reason we must be afraid in—and of—the state of nature is the widespread ability of people to kill each other; while asleep, even the strongest can be killed by the weakest (Foucault, 2003; Hobbes, 2004, p. 89; Hull, 2009; Ryan, 1996; on the general relation of reason and passion in Hobbes, see Coli, 2006). The other great early Modern thinker whom we will treat is Spinoza (2002). Although he is perhaps an “eccentric Hobbesian” because of his fondness for democracy (Curley, 1996, p. 315), Spinoza nonetheless follows Hobbes in arguing that given what we know about the role of the passions in human affairs, it is rational self-interest to wish to escape from the state of nature (Curley, 1996, p. 316). However, there is a more positive

reading of Spinozist political emotion than the Hobbesian emphasis on fear and security. First, there is an “affective genesis” of sociability via the passions that passes through our powers of imagination and imitation (Balibar, 1998). Second, a good political system can support us in pursuing the Spinozist doctrine of making passive affects into active affects. This transformation stems from adequate ideas, that is, understanding the causes of an affect. But the path to adequate ideas goes through common notions, the discovery of the agreement of things with each other, and here “there is no individual thing in the universe more useful to man than a man who lives by the guidance of reason” (Spinoza, 2002, p. 337 (*Ethics*, IV, p35c1)), for it is in their rational nature that men most agree (Balibar, 1998; Lloyd & Gatens, 1999; Sharp, 2011).

With regard to the eighteenth-century sentimentalists, David Hume and Adam Smith, Krause (2008a, 2008b) turns to Hume as providing resources for “affectively engaged impartiality” with an eye to sustaining deliberative democracy (Krause, 2008a, p. 6). Krause does not advocate adopting Hume whole cloth, however: “Insofar as the moral sentiments are socially constituted...they will tend to reflect prevailing social inequalities... The natural limits of sympathy in Hume’s account exacerbate this danger...Hume’s account must be supplemented” (Krause, 2008b, p. 127). The recovery of Smith’s work on sympathy as relevant to political philosophy has had to overcome the appropriation of Smith by economic and political thinkers as (exclusively) based on rational self-interest. This reading of Smith overlooks the way sympathy is not excluded from the impartial spectator (Amadae, 2003, pp. 193–219, especially p. 216; Foucault, 2008). However, Kingston (2008) traces Smith’s role in occluding the classical notion of a “public passion,” that is, the shared emotional disposition or ethical character of members of a community as seen by Plato and Aristotle. For Kingston, Smith’s emphasis on “localized face-to-face encounters” individualizes the sympathy of the impartial spectator. Hence, despite the importance of sympathy in his work, Kingston sees Smith as part of the movement by which public passions are occluded and private passions delegitimized so that “shared rational norms became the sole possible basis for understanding the creation and shaping of political community” (Kingston, 2008, p. 124).

Feminist, “continental,” and cultural studies approaches to political emotion

Limitations of space prevent a full discussion, but the following are noteworthy. Lloyd (1993) offers a critique of the identification of man with reason and woman with emotion in the history of Western philosophy. Mendus (2001) looks at feminism and emotion in eighteenth- and nineteenth-century thinkers (Kant, Wollstonecraft, and Mill among them). James (2006) provides a very useful overview, with particular attention to Spelman (1989), on feminist reclaiming of anger and indignation, and to Nussbaum’s (2003) cognitivist reading of emotions as judgments. A powerful pair of works by Butler (2004, 2009) posits the grieving attendant upon our precarious material and social selves as furnishing “a sense of political community of a complex order...by bringing to the fore the relational ties that have implications for theorizing fundamental dependency and

ethical responsibility" (Butler, 2004, p. 20). Through the focus on grieving we see "the fundamental sociality of embodied life" such that the public emotions of "mourning, fear, anxiety, rage" in post-September 11 America are seen in relation to foreign policy, and its intervention into and constitution of "the geopolitical distribution of corporeal vulnerability" (Butler, 2004, pp. 28–29). Finally, we can note how William Connolly (2008) enlists Nietzsche and Deleuze in his critique of contemporary American *resentiment* as it appears in "the contemporary conjunction of cowboy capitalism, evangelical Christianity, and a providential image of history" (Connolly, 2008, p. xiv).

The "affect theory" school (recently anthologized in Gregg & Seigworth, 2010) is a noteworthy interdisciplinary approach to political emotion. It owes its start to Sedgwick and Frank (1995), which renewed interest in the American psychologist Silvan Tomkins, who provides a naturalist taxonomy of affects, distinguishing nine neurobiologically hardwired and recombinant affects (in their high intensity modes: joy, excitement, startle, rage, disgust, "dissmell," anguish, terror, humiliation). Massumi (2002) is the other origin of affect theory; his work is based on a Deleuzian appropriation of Spinoza's theory of affect and affection. Affection is the change in the material relations defining a body (its "speeds and slownesses") by an encounter with another body, while affect is the change in the power of acting of the affected body due to the affection. "Power of acting" is often taken by the Deleuze-Spinozists as the potentials of a body to form "assemblages" linking it to other bodies in an emergentist scheme. See also Ahmed (2004) on the "cultural politics of emotion" in contemporary Britain; Massumi (1993) on the "politics of everyday fear," a work that is even more relevant post-September 11; and Berlant (2011) on the "cruel optimism"—a self-defeating relation in which objects block the motivating attachment to that very object—that pervades the continual crisis mode of American neoliberalism.

Recent scientific studies of political emotion and its relation to (American) electoral politics

Before we discuss recent scientific work directly focused on political emotion, we can note work in adjacent areas that helps to prepare for and contextualize work on political emotion in the narrow sense. First, there has been a renewal of interest in the notion of the authoritarian personality (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Altemeyer, 1988; Jost, Glaser, Kruglanski, & Sullaway, 2003). There is also been much neuroscientific work on the bases of emotional and rational approaches to moral problems (Greene, 2003, 2008; Greene & Haidt, 2002), as well as work on the hormone oxytocin's effect on sociability (Zak, 2011). Work on the evolutionary roots of pro-sociality and altruistic behavior in relation to empathy and morality can be found in Hrdy (2009), Gintis, Bowles, Boyd, and Fehr (2005), de Waal (2006), and Joyce (2006). Work in child development and cooperation can be found in Tomasello (2009). For the philosophical renewal of interest in empathy, see Stueber (2006). Finally, for work on collective emotion in the economic arena, see Berezin (2003), on the Keynesian notion of "animal spirits" and (2009), on the metaphor of a "fear index" used among financial workers).

Directly relevant to the study of political emotion, the work of Neuman and colleagues (2007) is situated at the intersection of “political psychology”—as a subfield of political science—and psychology itself, including neuroscience. One of the important technical questions addressed by the essays in Neuman, Marcus, Gringler, and Mackuen’s (2007) edited volume is that of “dual processing” theories, that is, separate channels for: (1) fast, “bottom-up,” automatic or “reflexive,” and mostly emotional processing and (2) slower, “top-down,” executive or “reflective,” and mostly cognitive processing. Departing from a strict dual processing model, Spezio and Adolphs (2007) propose an interesting “recurrent multilevel appraisal model” in which “the evaluative processing and emotional processing functions form bidirectionally coupled, iterative loops that are extended in time” (p. 83).

We turn now to a series of popular works that take political emotion as their topic. I include them here for their accessibility as well as the coverage of the primary literature that they synthesize. In addition, the very fact of their publication indicates self-awareness on the part of the electorate of the affect-soaked American political scene. Mooney (2012) looks at dogmatism about beliefs more than at emotions per se in his survey of work on bias, motivated reasoning, selective exposure, cognitive dissonance, and so on. Nonetheless, Mooney does have the notion of “openness to experience” as his key, and this can be seen in terms of emotional disposition. Frank (2004) analyzes how emotional appeals have overridden what should have been seen as economic self-interest on the part of lower-income voters. Lakoff (2008) rejects the association of the unconscious with the emotional and the conscious with the cognitive. Instead he wants to render conscious the “frames” of the “cognitive unconscious” that shapes our political discourse. His hope in making the workings of the reflexive unconscious reflectively accessible is to facilitate deliberative democracy. Despite this focus on the deliberative, he nonetheless refers to political emotion in noting that progressives appeal to empathy while conservatives appeal to fear and authority. The political task for progressives is then for Lakoff the cultivation of empathy.²

In the electoral politics work there is a strong neo-Humean angle in which reason is the slave of the passions. For Westen (2007), bounded rationality is not enough; political appeals must go through emotions rather than through the rationality of interests. Haidt (2012) focuses on different moral logics leading to political impasses and bitterness. In Haidt’s “social intuitionist” model, in the vast majority of cases affect-laden moral intuitions drive moral judgments, with moral reasoning following after. Moral reason is thus motivated by prior intuitions, so it is much more like a lawyer fighting a case than a scientist searching for truth. The political problem comes from a population whose differing intuitions stem from multiple moral values. While the affect-laden intuitions of

² There is a new school that reads the development of the mirror neuron bases of empathy in terms of exposure to properly nurturing interpersonal relations (Heyes, 2010; see also the popular work of Szalavitz and Perry, 2010).

American-style “liberals” come from the logics of care and fairness, “conservatives” also have strong intuitions from moral logics of liberty, loyalty, authority, and sanctity.

Case study: collective emotions in military training

Max Weber provides a canonical definition of political sovereignty as the monopoly on the legitimate use of force within a territory (Weber, 1978). But there is a problem: how to unleash yet control the killing potential of the forces of order, the army and the police (Protevi, 2008, 2010)? The problem is especially acute in the crucial point of counter-revolution: will the army fire on “the people”? Plato saw this problem clearly in his analysis of the character of the guardians, who had to be kind to friends yet fierce to enemies (Plato, 1961, p. 622 (*Republic*, 375c)). Interestingly enough, the problem is more on the “unleashing” side than on the “controlling” side, for killing is less easy than it might seem for those raised with a Hobbesian outlook in which the ability to kill is assumed to be widespread. Researchers expecting to find that ability displayed in combat, where the logic of “kill or be killed” would predict high rates of deadly interaction, were shocked and dismayed to find that traditional military drill (target shooting at bull’s-eyes) produced only a 15–20% firing rate among American infantry troops in the Second World War, excluding machine-gunners (Grossman, 1996, pp. 3–4, citing Marshall, 1978; see also Collins, 2008). While close-range killing can be done by a very small percentage of soldiers in “cold blood” (i.e., with full conscious awareness), Grossman (1996) argues for a deep-seated inhibition against one-on-one, face-to-face, cold-blooded killing on the part of some 98% of soldiers, a figure which correlates well with the estimated 2% of the population who count as low-affect or “stimulus-hungry” sociopaths (Niehoff, 1999; Pierson, 1999). The problem with close-range killing is the emotional barrier of fear (Collins, 2008; Grossman, 1996). So, far from facing the Hobbesian problem of having to restrain a widespread ability to kill by creating a fearful State, the contemporary American state in fact faces a problem in training its forces to overcome fear so that they are able to kill.

Killing behavior is facilitated by arrangements of distance, teamwork, command, habituation, and mechanical intermediaries. Together they disable a widely distributed inhibition on close-range, cold-blooded killing among humans, which we can say is based in “proto-empathic identification,” and which relies on a fundamental linkage of affect, body image and bodily integrity. Soldiers’ testimonies are clear that seeing someone else’s blood and guts spill out of them is powerfully felt by many soldiers (Kilner, 2000; Kirkland, 1995).³

Since the vast majority of even trained soldiers cannot kill at close range in cold blood, a tried and true technique is to kill in a de-subjectified state, e.g., in reflexes, rages and panics. The Viking “berserker rage” is a prototype here; see Shay (1995) for modern examples.

³ On the powerful affects provoked by spilled guts, see Gallese, Keysers, and Rizzolatti (2004). On mirror neurons hooked to “viscero-motor centers,” see Singer et al. (2004) who show that “empathy for pain” is correlated with increased activity of neural networks mapping the guts.

Griffiths (1997) denies that “emotion” is a natural kind, and takes some primary emotions as “affect programs” or fast-acting, pre-programmed, and automatic behavior routines. I accept the affect program notion in extreme cases such as the berserker rage (Protevi, 2009, 2010). To provoke the berserker rage, the Vikings experimented with various training practices; the noted historian William McNeill claims that “war dances” produced a “heightened excitement” that contributed to the “reckless attacks” of the “Viking berserkers” (McNeill, 1995, p. 102; see also Speidel, 2002, p. 276).

While we will not exclusively focus on the berserker rage—indeed contemporary military training seeks to avoid such rage states—we will follow McNeill’s lead here and investigate the wider issue of music and physical entrainment in provoking group feeling in military training. John Bispham, whose work we discussed earlier, claims functional affective regulation by means of group music includes “military arousal” (Bispham, 2006, p. 130). Now we should be clear that the semantic dimension of military training cannot be overlooked, as soldiers dehumanize the enemy by a series of racial slurs. But we can note that the semantic dimension receives a boost when it is produced via rhythmic chanting while running (Burke, 2004).

Most soldiers do not “kill,” instead the enemy was knocked over, wasted, greased, taken out, and mopped up. The enemy is hosed, zapped, probed, and fired on. The enemy’s humanity is denied, and he becomes a strange beast called a Kraut, Jap, Reb, Yank, dink, slant, or slope. (Grossman, 1996, p. 93)

Although the semantic/cognitive act of dehumanizing the enemy, aided by affective *esprit de corps* via physical entrainment, helps killing behavior, we should not overlook the fact that the greatest factor in increased firing rates is a form of reflex training that cuts conscious subjectivity out of the loop (Collins, 2008; Grossman, 1996; Protevi, 2008). But here again we meet political emotion, as there is a return of the subjective with the traumatic, guilt-provoking, sight of kills. Nonetheless, there is yet another turn, as the semantic again plays a role in modulating political emotion, as anecdotal evidence relayed to the author in personal communication by Lieutenant Colonel Pete Kilner of West Point suggests that officers who had talked and thought about the after-effects of killing had less guilt than enlisted men and women without such preparation.

Conclusion

Let me end with a few words of caution about political emotion. We need not share the hysterical reactions of Le Bon (1896; Wilson, 2004)—for whom mass politics dragged rational men down to the level of “women, primitives, and children” in an unconscious emotional regression—to be cautious here. Joy in entrained collective action is by no means a simple normative standard. There is fascist joy; the affect surging through the Nuremberg rallies, building upon and provoking even more feeling, was joyous (Berghaus, 1996). If there is to be any normativity in collective political emotion it will have to be active joy rather than passive joy. As we have seen, for Spinoza, active joy comes from adequate ideas, that is, understanding the causes of the affect. I would give

a pragmatist twist to this and say active joy is “empowerment,” the ability to re-enact the joyous encounter in novel situations, or to put it in semi-California-speak, the ability to turn other people on to their ability to turn still others on to their ability to enact active joyous collective action, on and on in a horizontally radiating network, or, to use Deleuze and Guattari’s (1987) term, a “rhizome.” This active understanding of how to empower others in a “horizontal” network is precisely what was missing from the mystified masses of Nuremberg, who could do nothing but search for further occasions to submit passively to the Leader’s “vertical” commands.

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Chapter 23

Emotions, sociology, and protest

James M. Jasper

City University of New York

For generations, protest and social movements were virtually defined as the outbreak of collective emotions. Crowds were at their heart, and crowds were emotional. Sigmund Freud saw them as a form of hypnotic regression, driven by the unconscious, in which “every individual is ruled by those attitudes of the group mind” (Freud, 1959/1922, p. 49). Crowds were a resurgence of the primal horde from early human evolution, commanded by a strong leader: “The primal father is the group ideal, which governs the ego in the place of the ego ideal” (Freud, 1959/1922, p. 59). People in crowds were no longer themselves.

This is the mystery of collective action: Where does the individual end and the group begin? How are the goals of the individual and of the group related? Do participants set aside selfish interests in order to make sacrifices for the group? Or are we defined by our group memberships from the start? Is there a dualism at the heart of human nature, both individual and social at the same time?

The sociology of emotions, focused on the face-to-face interactions that generate most emotions, helps us unravel some of this mystery. It has allowed sociologists to study the distribution of emotions across various groups and statuses; it also places these interactions in the context of broader structures such as power and status hierarchies, cultural norms and expectations, and employer–employee relations. It raises issues of how focused groups such as social movement organizations foster advantageous emotions in their members. Participants develop both shared emotions (toward people, objects, and ideas outside the group) and reciprocal emotions (toward each other), aiding in the development of a collective identity. We can adopt a rhetorical perspective, in which emotional displays are aimed at persuading various audiences, including participants themselves. Once we see emotions as an aspect of interaction, any sharp contrast between individual and collective emotions begins to dissolve. Only individuals have feelings, but they have them only in social, physical, and bodily contexts.

Crowds and protest movements are a perfect laboratory for addressing these questions and dynamics, as people volunteer to work together rather than being paid or coerced to do so. I shall examine what we have learned about the sociology of emotions in the settings of social movements. The same feelings can be found in other types of interactions, but compiled in different ways. In particular, feelings can be observed among the other

players with whom protest groups interact—the police, legislators, media, and so on—but I shall not examine these here.

The chapter proceeds with a brief overview of relevant findings in the sociology of emotions, followed by an equally brief account of the rediscovery of emotions in the sociology of protest, a discussion of some ways that protestors share emotions, some feelings that protestors have toward each other, and a conclusion.

The sociology of emotions

Emile Durkheim recognized our emotional attachments to the world, saying, “There is not, so to speak, a moment in our lives when some current of energy does not come to us from without” (Durkheim, 1965, p. 242). He famously described the “collective effervescence” generated by crowds through rituals. “In the midst of an assembly animated by a common passion, we become susceptible of acts and sentiments of which we are incapable when reduced to our own forces,” a feeling of confidence and energy that comes from having god on your side (1965, p. 240).

Durkheim’s crowd theory was based on a dualist image of human nature, both individual and social at the same time. Durkheim observes that humans have always thought of themselves as consisting of two radically different substances, a body and a soul. These are independent and even painfully antagonistic to each other. “The body is an integral part of the material universe, as it is made known to us by sensory experience; the abode of the soul is elsewhere, and the soul tends ceaselessly to return to it. That abode is the world of the sacred.” The soul, he says, is nothing more than the social, imposing itself on us from the outside (Durkheim, 1973, p. 150). Concepts and knowledge lie with the social, so that “we cannot understand things without partially renouncing a feeling for their life, and we cannot feel that life without renouncing the understanding of it” (1973, p. 153). Even though Durkheim renounces idealism, he sees ideas as something outside us, outside our bodies. Researchers today can acknowledge the centrality of emotions without the dubious dualism of crowd theory.

Although both Durkheim (enthusiastically) and Weber (dismissively) wrote about emotions, as did other early sociologists such as Max Scheler and Norbert Elias (1939/1978), the dominant paradigms of sociology mostly ignored them. When Anthony Giddens (1971) later canonized Marx, Weber, and Durkheim as the founding fathers of the discipline—largely for their structural insights into capitalism—emotions were firmly excluded, along with most of their insights into protest movements.

Yet a minority vision, originating in Pragmatism and symbolic interactionism at the University of Chicago, maintained a central place for emotions in sociology. Charles Horton Cooley (1902) in particular was explicit about their role, finding in shame and pride basic motivations of human interaction as well as mechanisms for social order. Erving Goffman helped keep this interactionist tradition alive, through his various books cataloguing face-to-face encounters, and especially his descriptions of the management of shame and embarrassment (1956, 1959, 1963).

The systematic sociology of emotions that began to emerge in the late 1970s was primarily grounded in the Chicago tradition. But the spark for this subfield was that social psychologists managed to make contact with the structural images of the mainstream, showing ways that emotions were both cause and consequence of broader social structures and processes.

Affect control theory (ACT) suggests that humans have emotions when events do not match their expectations, which are in turn based on cultural knowledge about what people in various roles normally do in different interactions (Heise, 1979, 2007). For instance we expect mothers to nurture their children; we are disturbed when we instead see a mother starve or ignore her child. We try to protect our basic cultural assumptions about mothers (i.e., to control our affects). The main way to do this is to change one of the elements in the subject-act-object triad: perhaps this is not the child's mother; perhaps the mother is actually nursing the child back to health; perhaps the child is sick rather than starved. We try to confirm our underlying sentiments through our interpretations of events around us, and sometimes must take action to do so, for example by gathering more information or by intervening in some way, such as giving money to the mother. The greater the gap between our expectations and what we see or learn (the "deflection," in ACT terms), the stronger the emotion. Through surveys ACT researchers have established catalogues of the meanings that different cultures have for roles and actions, although this linguistic research is still centered on the United States.

ACT researchers characterize our expectations about roles and actions along three dimensions: *evaluation* (good or bad), *potency* (strong or weak), and *activity* level (active or passive)—together known as EPA space (drawn from Osgood et al., 1957). To extend our example, if we see a mother and her starving child on television, how do we make sense of this horror? Normally, we see mothers as very good, somewhat strong, and somewhat active. But in this case, we may conclude that the mother herself has been weakened or made passive by starvation, even though she still has good intentions. Instead of seeing her as a villain (a bad mother), we can see her as a victim (still good, but weak and passive). We do interpretive work like this not only in face-to-face encounters but also when we receive mediated news or propaganda, even from the other side of the globe. These dynamics help explain compassion, to which so many social movements appeal.

The core of ACT is a special kind of interaction: observation of engagements. The mother and child whom we observe may be strangers to us, and we may not engage them at all (dealing with our deflection by changing our own minds, for instance). Even if we are the subject or object of the interaction, we are engaged largely as observers, comparing what unfolds to what we expected. What the mother and child feel has no necessary connection to what we feel. *We are connected to others through our shared culture*, our shared expectations of how people act.

Identity control theory (ICT) is closely related to ACT, but focuses on a person's own sense of identity (Burke, 1991). When our sense of ourselves is not confirmed, when we are not treated as we expect to be, we act to reassert that identity. Over time, in the face of enough shocks, we may have to revise our sense of who we are, but our immediate

response is normally to try to maintain our identities. For example if we think of ourselves as good and generous, but do something that is apparently not so good or generous, we may offer rationales as well as try to engage in generous actions for a while to repair our self-image. Although research has only been conducted on individuals, it is possible that our collective identities can operate similarly: we support action to restore our national honor when it has been insulted, for example (Lebow, 2009). Such identities are the basis for theories such as intergroup emotions theory (Smith & Mackie, 2008; Ray, Mackie, & Smith, Chapter 16, this volume).

In this way theories of collective identity link with ICT to predict widespread, aggregate emotions in response to shocks to our collective pride. Drawing on Cooley, Scheff (1994) has elaborated this possibility into a theory of pride and shame as master emotions that can help explain collective actions such as wars. Normal pride makes us feel connected to those around us. Normal shame discourages us from antisocial behavior. They form the glue of social life. Unacknowledged or bypassed shame, on the other hand, generates a vicious spiral with aggression. The more aggression, the more shame we feel, the more (unacknowledged) shame we feel, the more aggression toward others. Our social bonds are severed. A shared sense of membership in a group, and shared expectations of how that group should be treated, can generate similar emotions in the members of that group, conducive to collective action, based on pride (Britt & Heise, 2000; Gould, 2009). We'll see later in the chapter the centrality of shame-pride dynamics to movements of stigmatized groups.

ACT and ICT suggest ways that emotions can contribute to political action, and "deflections" have parallels with the anxieties that Marcus et al. (2000) suggest cause greater surveillance and information gathering among voters (see Protevi, Chapter 22, this volume). Often, we work to confirm existing cultural views and social structures. But the point of political propaganda can be, instead of numbing us, to shock our expectations in ways that cause us to act (or support government action) to change the world around us. Events trigger emotions depending on our background expectations. If we expect our government to be good, strong, and active, we are shocked when it fails to protect us (from hurricanes, for instance) or acts badly (killing its own citizens for example). Unfortunately but realistically, not everyone expects her government to be good; cynics are hard to shock.

Another strand in the sociology of emotions, less directly beholden to symbolic interactionism, relates our emotions to our interactions with those above and below us in *hierarchies of status and power*. Kemper (1978, 2001; Kemper & Collins, 1990) developed an elaborate scheme of possible interactions, which explain three types of emotion: *structural* emotions based on our position in these hierarchies, *situational* emotions based on changes in our power and status during interactions, and *anticipatory* emotions based on the power and status that we expect. Positive emotions such as confidence and security result from status and power (and from increases in these); fears, anxieties, and other negative emotions result from low levels or declines in power and status. There are more nuances than I can elaborate here, but once again our expectations are the core mechanism.

Kemper's emphasis on hierarchies shows how different parties to the same interaction can feel different emotions. Even everyday interactions are structured by individuals' statuses and expectations. We feel differently if we interact with someone above us or below us in a hierarchy. Rather than shared emotions, we see a predictable distribution of emotions. Those who exert their power or express their status in interactions are more likely to feel positive emotions and leave in a good mood. They may try to organize similar engagements in the future. Indeed the emotional energy they generate in one interaction, says Collins (2004, p. 131), allows them to organize similar events in the future.

In Kemper's model, as with ACT and ICT, the attribution of *blame* is central to our emotions. If we believe we have lost status due to our *own* action, we are ashamed or embarrassed, whereas if we blame someone *else* we become indignant or angry. The former are deflating emotions, the latter can move us toward action. The emotional dynamics of blame, I have argued elsewhere (Jasper, 1997, ch. 5, 2006, ch. 2) are helpful for explaining strategic and political action. We craft villains, victims, and heroes from the cultural materials available to us (Jasper et al., forthcoming.). This necessarily involves some reification of groups as unified players, portraying both friends and foes *as if* their members shared the same collective emotions.

A number of social psychologists within sociology, drawing on work like ACT and Kemper's structural models, have stressed the importance of expectations in explaining our emotional reactions. Thamm (1992) claims that all groups generate expectations about how individuals should behave as well as rewards and sanctions depending on whether they conform. As a person appraises how well both she and others are living up to expectations, she feels emotions. In all these models, there is room for cross-cultural variation in expectations, as well as motivation for political action. Expectations can be widely, but almost never unanimously, shared within a group or nation.

In 1983, Arlie Hochschild published *The Managed Heart*, an academic bestseller that eclipsed the other traditions in the sociology of emotions. Her diverse sources included Goffman's interactionism but also C. Wright Mills' theories of class structure, specifically the exploitation of white-collar workers. Writing about flight attendants, Hochschild described the management of emotional expressions according to culturally informed *feeling rules* and *display rules*, including those imposed by employers in a kind of exploitation of the soul. When we simply follow the display rules, she says, we are *surface acting*; when we follow the rules about what we are supposed to actually be feeling, we are *deep acting*. By working on our thinking and our bodies, we continually do *emotion management*, but when corporations force us to do too much of that work we become alienated from our own feelings.

Hochschild introduced several important ideas. First, emotions are often self-consciously displayed in order to have an effect on an audience, a point analyzed in depth by classical rhetoric. Second, there can be struggles, often intense, over the emotions to be displayed. Corporations and their employees are an extreme case, but hardly unique (think of parents and children). Protest leaders work hard to persuade their followers to feel

and display the “right” emotions. Third, money can be deployed to buy emotional displays. So can persuasion and coercion, the other two main families of strategic means (Jasper, 2006).

Another strand in the sociology of emotions is Collins’ (1975, 2001, 2004) discussion of the emotional energy generated in *collective rituals*, or Durkheim’s “collective efferescence” (see Collins, Chapter 20, this volume; Knotterus, Chapter 21, this volume). As part of his “conflict theory,” Collins sees attention and positive feelings as values for which people compete. The “emotional energy” generated in face-to-face encounters (with their attendant mutual focus of attention and coordinated movement) becomes a mood that people carry with them, often giving them enough enthusiasm for collective political action. Following Goffman, Collins emphasizes that almost all interactions are kinds of rituals; they need not be elaborate and formal affairs. He also accepts Durkheim’s claim that participants create meaningful symbols from these emotional engagements, explaining why people share emotions *and* have reciprocal emotions. Group loyalty results, although it needs to be recharged periodically with additional interactions.

The main thrust of the sociology of emotions has been to locate them, not in the individual and not in “the group,” but in between these two, in the interactions among individuals. But it has also shown how thoroughly these interactions are shaped by cultural expectations, hierarchies, organizational commands, and formal and informal rituals. Individuals tend to have emotions that are socially appropriate rather than simply those which—as Freudian traditions would have it—address inner psychic dynamics. So when most members of a group (almost never *all* of them) feel or display the same emotions at the same time, the reason is not some group mind or automatic contagion (although contagion does exist). It is that the same expectations, social structures, and interactive processes are affecting all of them.

Rediscovering the emotions of protest

Protest movements offer a kind of laboratory for observing many of the processes that shape our feelings and displays, but they also represent a Rorschach test of researchers’ own biases and preoccupations. Until the 1960s observers used the obvious emotions of crowds to dismiss protestors as irrational (following an ancient intellectual lineage); from the 1960s to the 1990s analysts denied any and all emotions in an effort to demonstrate that protestors are “rational” (Goodwin et al., 2000). In the late 1990s the intellectual pendulum began to swing back, in “the return of the repressed,” as cultural theories explored the meanings that protestors attach to their actions (Jasper, 1997, 1998).

Helena Flam’s (1990) “emotional man” model complemented both the self-interested rational models of economics (Olson, 1965) and the moral models of altruism often presented as their opposite. Ferree (1992, p. 32) also criticized the rational-choice tradition for rendering “ambivalence, altruism, and emotional experience” “invisible and irrelevant.” Given their strong assumptions about individual autonomy, rational-choice models were able to acknowledge emotions as interpersonal signals (Frank, 1988), but not as intricate, even defining, connections among people. Unfortunately, critics of rational-choice theory

had to accept much of the individualistic language of their target in order to carry on a dialogue.

Going further, feminists developed models of humans as inherently bonded to one another, using families rather than markets as their central exemplar of interaction. They did not always foreground emotions, and when they did there was frequent ambivalence: emotions (such as love) help connect humans, but emotions (such as depression or fear) also contribute to women's oppression (Taylor, 1996). Jaggar (1989) and others challenged a number of dichotomies used to denigrate women: mind versus body, thinking versus feeling, public versus private, and so on (Calhoun, 2001). Hochschild (1983, p. 163), too, insisted that women are exploited by being called upon to do more emotion work: "Lacking other resources, women make a resource out of feeling," thanks in part to the emotion-management skills they are expected to develop through their gender socialization.

Feminists often argued that women are expected to be emotional and men unemotional. I would argue instead that different emotions are assigned to men and to women. Men are allowed to express aggressive emotions, notably anger, that are useful for asserting one's rights and statuses (Aristotle, 1991, pp. 142–146). Women are trained to feel and display deflating, self-deprecating emotions such as fear or sadness. In ACT terms, women are expected to be passive at least as much as they are expected to be weak.

Cultural constructionism also offered tools for understanding the emotions of politics, especially by suggesting that emotions are a part of culture alongside cognition and morality (Jasper, 1997). Emotional mechanisms could be found driving processes otherwise taken as cognitive, such as frame alignment and collective identity, or taken as structural, such as political opportunities and networks (Jasper, 1998; see also Protevi, Chapter 22, this volume) The cultural approach tends to highlight the rhetorical and performative work that organizers do to construct sensibilities and identities, and to generate moral shocks that attract and energize participants.

In recent years an explosion of research and theory has traced the emotional dimensions of the emergence, ongoing dynamics, and impacts of social movements (for an overview, see Jasper, 2011). Most have adopted some version of a cultural approach (Goodwin et al., 2001; Gould, 2009; Summers & Effler, 2010; Traïni, 2008), although there have also been efforts to apply Freudian models (Goodwin, 1997; Hoggett, 1992), structural models (Barbalet, 1998; Kemper, 2001), and affect control theory (Britt & Heise, 2000). Because collective action often depends on participants' sharing emotions and feeling positively toward each other, this research field has generated insights into the social mechanisms by which emotional alignment occurs.

The sociology of emotions and of social movements generated a number of parallel insights. What triggers emotions, how we display them, and even—in between—what we feel, are shaped by expectations laid down by social context, including social structure and hierarchy and cultural socialization and representation. Individuals in the same situations can be expected to share many or most of the same feelings. Second, emotions

arise partly from social interactions. My impact on your emotions may be intentional or unintentional; the effect may be for you to feel the same thing that I am feeling, or to feel something different. In the remainder of this chapter I examine two families of mechanisms by which individuals align their emotions through social interaction: by reacting in the same way to the same experiences, and by identifying with broader collectives.

Shared emotions

A large number of people in the same situation or face-to-face setting may feel the same emotions at the same time. The reason is typically that the same mechanisms are operating on all of them. It may seem as though these are collective emotions, shared by a group, although it is rare for *all* the individuals in any given setting to feel exactly the same emotions. Even the outward display of a given set of emotions does not guarantee that each individual is having exactly the same feelings. Nevertheless, there are many reasons for individuals gathered together in the same place to feel the same or similar emotions.

I see four main categories of emotions that we are capable of sharing. First, reactions to the actions of others: fear that comes from opponents, indignation over decisions that we detest; confidence from the words of our leaders. Second, feelings due to our own actions: pride, confidence, hope, but also (when we act badly) shame or guilt. Third, feelings due to our long-term affective and moral commitments, such as pride in a group to which we belong, anxiety or disgust over other groups; such commitments are relatively stable ways we have of orienting ourselves to the world. Finally, we may share medium-term moods, such as excitement, hope, or resignation.

Moral shocks are a common reaction to the unjust actions of others, when information or events (much like Marcus's (2002) anxiety, the "deflections" of ACT (Heise, 1979), or the breaching experiments of ethnomethodology (Garfinkel, 1967)) suggest to people that the world is not as they had thought. Their visceral unease may on occasion lead to political action as a form of redress. Authors have found moral shocks part of recruitment to the animal rights movement (Jasper & Poulsen, 1995), the movement for peace in Central America (Nepstad & Smith, 2001), anti-racist movements (Warren, 2010), and others. Violent repression of peaceful protest is also a frequent source of moral shock, dubbed "backfire" by Hess and Martin (2006), who also describe techniques used by authorities and protestors to battle over the emotional interpretation of the shock.

Gould suggests that moral shocks often come to those who are already prepared, perhaps even participating in a social movement, with the effect of radicalizing them or reinforcing their commitment. In 1986 *Bowers v. Hardwick* had this effect on the US gay and lesbian rights movements (Gould, 2009, ch. 2). *Roe v. Wade* had had a similar impact on an attentive—and already anti-abortion—segment of the American public in 1973. Moral shocks can redirect attention or revivify existing efforts, not necessarily change people's underlying values or ideologies. *Roe* informed an attentive public how common abortion actually was; *Hardwick* told the lesbian and gay community that their own government supported their oppression. Indignation at one's own government can be especially

strong, as it involves a sense of betrayal.¹ It may turn out that moral shocks affect tactical choices more often than they do recruitment.

Protestors also respond to efforts by “the forces of order” to intimidate them. One source of disruption is fear, which can paralyze or panic—it was the paradigm emotion for much crowd theory. Movement leaders must transform potential paralysis into a mood of confidence in one’s own actions. Jeff Goodwin and Steven Pfaff (2001) uncovered “encouragement mechanisms” that organizers used to mitigate or manage fear in both the US and the East German civil rights movements: intimate social ties and support; emotional mass meetings; identification with the movement; faith in their ultimate victory; shaming; formal training in civil disobedience; and mass-media coverage. They found two additional mechanisms in the US movement: the possession of firearms, and faith in divine protection. (The Lord helps those who help themselves, apparently.) Confidence comes from many sources.

Another mechanism for sharing emotions—and perhaps the most direct—is contagion: we tend to mimic the facial expressions of those around us, and we tend to feel the emotions that we associate with those expressions. In this case we are reacting to the actions of our own side as in the case of confidence. Hatfield, Cacioppo, and Rapson (1994) have detailed the mechanisms by which emotional contagion operates (see also Hatfield, Carpenter, & Rapson, Chapter 8, this volume). For one, we may consciously imagine another’s experience, a kind of sympathy that Adam Smith (1969) emphasized. There may also be automatic reactions, such as we feel when we hear someone’s shrill, hysterical tone of voice when they are upset. Finally, there are mechanisms of direct mimicry, which occurs in two steps. “In conversation, people tend automatically and continuously to mimic and synchronize their movements with the facial expressions, voices, postures, movements, and instrumental behaviors of others’ (Hatfield et al., 1994, p.10; also Bourgeois & Hess, 2008). These behaviors, in turn, affect our emotions, as we come to feel what is appropriate to our behaviors (see Hess, Houde, & Fischer, Chapter 7, this volume; Hatfield et al., Chapter 8, this volume).

Third, all these mechanisms for sharing short-run emotions (surprise, shock, anger, fear, disgust, and joy, which I term “reflex emotions” in Jasper, 2011) are reinforced if people also share long-run, background emotions: affective loyalties to (or against) groups or ideas, and moral commitments to sources of pride, shame, and justice.² Background commitments, which shape our expectations and hence our short-term emotions, can be constructed and reinforced through symbols (for instance, symbols of the group), arguments, collective memories, and other cognitive aids. Propaganda is designed so that participants are properly prepared to react in the same way to events.

¹ See Gordon and Jasper (1996) on the use of procedural as opposed to substantive rhetoric in protest, although we did not document the emotional dynamics involved, such as a feeling of betrayal.

² In Jasper (2011) and elsewhere, I present a typology of feelings ranging from short-run feelings such as urges and reflex emotions through medium-term moods, and on to long-run affective commitments and moral emotions.

Fourth, participants may also come to share a positive or negative mood, partly through contagion and partly through the same reflex emotions. Joy and disappointment are especially contagious through facial expressions and through the emotional energy that rises during successful interaction rituals and falls during unsuccessful ones. Collins (2004) assumes there is considerable consensus over the relative success or failure of an interaction ritual, but there is little evidence on the topic. Moods seem to amplify the effects of both shared reflex emotions and contagion.

Reciprocal emotions

In the background of our interactions, we have affective commitments toward others, including those we are currently interacting with. I have called the latter reciprocal emotions, assuming that to some (variable) extent those in the group feel a certain way about “the group” (Jasper, 1998). But reciprocal emotions also include feelings toward specific members of the group, such as two participants who fall in love with each other, or the small group whose main affection is for each other rather than for the movement as a whole. (I call this the *Band of Brothers Dilemma*: movement leaders want to encourage affective loyalties, but run the risk that these will attach to small subgroups rather than to the organization or movement as a whole; see Jasper, 2004, p. 13). Reciprocal emotions, we’ll see in this section, form patterns of trust and attraction that can channel protest activity.

A number of scholars have pointed to the importance of social networks as opposed to ideas in the recruitment of new participants in social movements (summed up in Jasper, 1999). In this pseudo-debate, ideas were taken as rather abstract, Aristotelian “unmoved movers,” while networks were presented as mechanistic proximity. Instead, the way to understand the effects of networks may be through the emotions members feel for each other in those networks.

Ziad Munson (2009) suggests this in his investigation of anti-abortion activists. Only one fifth of the activists in his sample described themselves as having had well-defined pro-life beliefs before they joined an organized group. Around the same number—slightly more, actually—had vaguely pro-choice beliefs. Most of the activists Munson interviewed had had vague and mixed beliefs or little interest in the issue at all. On most issues, average citizens carry around a number of inchoate images and intuitions, but not well-thought-out systems of ideas that are logically connected with one another. People are willing to take sides, but “To say that one is “pro-life” in these contexts seems more a statement of sociocultural identity than a reflection of an individual’s beliefs or moral understanding about abortion” (Munson, 2008: p. 43). This is a point that Bourdieu (1984) made long ago about what people are doing when they answer survey questions: they are aligning themselves with certain groups, not articulating well-established preferences.

It is not the strength of their commitment, then, that brings most people to a movement, but something closer to chance encounters shaped by their social networks. Typically, Munson finds (2008, p. 61), it is some kind of “turning point”—a move, religious conversion, birth of a child, new job, divorce or marriage—that “opens up the possibility of being

introduced to new networks of people with very different ideas and values while at the same time becoming free of the pressures to maintain old worldviews from old social ties.” Although Munson tends to highlight external circumstances, it seems to be the interplay between where someone finds herself and how she interprets those settings that produces new allegiances and attentions. A person is recruited through her affective bonds and attractions to individuals in a movement, not through the ideas of the movement.

If feelings of connection with others frequently motivate participants, they certainly also keep them there. A sense of belonging is a basic human need, involving emotions of love (Berezin, 1997), pride (Scheff, 1994), emotional excitement (Collins, 2004), and sometimes, alas, hatred for outsiders (Le Cour Grandmaison, 2002). Libraries have been written about collective identities and politics, ranging from nationalism (e.g., Calhoun, 1997) to American identity politics since the 1960s (Gitlin, 1995) to the emergence of lesbian, gay, bisexual, transgender, and queer (LGBTQ) movements since the 1990s (Gamson, 1995). Once viewed primarily as an exercise in collective memory or the drawing of cognitive boundaries, recent work has examined the emotions involved in collective identities. Group loyalties expand an individual’s goals to include benefits for the group itself, beyond any benefits the individual receives as a member of that group. Such goals are not quite self-interest and not quite altruism (McDonald, 1999; Polletta & Jasper, 2001).³

Lawler, Thye, and Yoon (2009, Chapter 13, this volume) have developed a theory of how face-to-face interactions can contribute to broad affective loyalties. They find that recurrent interpersonal interactions lead to norms, trust, and collective identity (the three main mechanisms that in turn lead to social order) only through the intervening variable of emotions. They apply their theory to national loyalties: even the broadest identities are based on face-to-face interactions and how we interpret them.

As mentioned earlier, Collins (2004, Chapter 20, this volume) offers a theory of emotional energy generated in face-to-face situations that give people consciousness of groups and motivation to participate in collective endeavors. His ritual model “explains the relative intensities of the movement commitments,” and might also help account for “how social movements periodically gather, in smaller or larger collective occasions, sometimes to recreate the effervescence that launched the movement, and sometimes to infuse new emotions, one of the most effective ways being confrontation with targets or enemies” (Collins, 2001, p. 31).

Collins’ use of Durkheim also suggests some of the mechanisms that generate the joys of crowds (Ehrenreich, 2006; Lofland, 1985). Collective locomotion and music have unusual capacities to make people melt into a group in feelings of satisfaction, perhaps

³ “Identity” was also a popular term in the collective-behavior tradition of the 1950s and 1960s, which emphasized a search for personal identity and meaning as a motive, usually for psychologically damaged individuals (Hoffer, 1951; Klapp, 1969). This is quite the opposite of how identities are viewed today, as Gamson (1992, p. 56) suggests: “Cleansed of its assumptions about a spoiled or ersatz identity, there is a central insight that remains. Participation in social movements frequently involves enlargement of personal identity for participation and offers fulfillment and realization of the self.”

because so many parts of the nervous system are involved at once. Music's contribution to social movements has often been analyzed as though it were primarily about the cognitive messages contained in the lyrics, full of catchy, memorable ideological slogans. But music has an emotional impact on participants who sing, dance, and move together (McNeill, 1995). Christophe Traïni (2008, p. 60) lists 12 contributions music makes to protest. The first two are explicitly emotional (creating feelings favorable to conversion and helpful emotional postures), but two more (reinforcement of group identity and demonization of opponents) also have emotional bases.

Movements decline when reciprocal emotions dissolve, even though scholars of social movements prefer to study the causes and expansion of movements. Most obviously, the absence of the emotions of pride, confidence, and enthusiasm lead people out of participation. In addition, there are dynamics of grief for the movement, blame and recriminations, and often a turn inward toward more cultural concerns and away from the political arena—processes that Lynn Owens (2009) documents for the Amsterdam squatters' movement. On the other hand, affective networks can keep a movement alive for long periods of political inactivity (Taylor, 1989). Faced with the Janus Dilemma, declining movements tend to turn inward toward their own “band of brothers.”

Just as shared emotions build reciprocal emotions, the reverse occurs as well. These are familiar processes: we want to fit in with our group, so we follow what we perceive are its norms, including how we think it should react to events and information. We monitor what others are doing and saying, and we react accordingly. Contagion is stronger when we are surrounded by those to whom we feel affective loyalties.

Conclusion

There is nothing mysterious about collective emotions. Leaders construct situations in part to suggest or allow certain reactive emotions among participants; certain situations demand certain feelings; and a central part of sharing cultural meanings is to share feelings. Organizers have also done a great deal of work to construct background emotions that shape reflex emotions of the moment. Foremost among these background emotions are reciprocal feelings among group members.

Identifications with groups shape our goals in life, and emotions are assessments of how well we are doing in relation to our various goals. If goals and expectations are shared, then the same information is likely to suggest the same emotions to individual members of a group whether or not they are together face to face. When they are together, many additional mechanisms also reinforce their shared feelings. When we also acknowledge that shared and reciprocal emotions reinforce each other, we have a rich tool kit for understanding the mechanisms by which large numbers of people can come to have the same emotions at the same time.

The recognition that emotions play a broad role in social life, and that they are a fundamental part of rationality rather than its opposite, is changing the way that scholars think about social movements and protest. It will also eventually transform the way we think

about action and interaction, and the meaning that humans attach to what they do. This is a rich, new, and exciting path for social science.

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Chapter 24

Emotional knowledge, emotional styles, and religion

Hubert Knoblauch^a and Regine Herbrik^b

^aTechnische Universität Berlin and ^bLeuphana University Lüneburg

From a sociological viewpoint, emotions, especially collective emotions, were already positioned and described within the context of religion by Emile Durkheim (1912/1995). In his perception of society, collective emotions comprise a fundamentally essential component since the emergence of religion is based on the interplay of a socially created imaginary reality (an idealized, second reality) with a specific, socially created kind of emotion (that he calls “effervescence”). To this extent, and in terms of a sociology of emotions, it makes sense to examine collective emotions more closely where—even today—religion is celebrated and religiosity is played out and lived. This chapter is not concerned exclusively with emotions that refer to a social collective or group, such as effervescence. Instead, we are interested in the entire spectrum of emotions that gain meaning in the context of religion. Our work is based on earlier research on the role of transcendence for contemporary religious communities and on studies on the *New Age* movement, near-death experiences, religious visions, and Marian apparitions (Knoblauch, 1999, 2009; Knoblauch & Soeffner, 1999), and in particular on findings of recent ethnographic research on the “emotionalization” of religion. This research compared newer Christian congregations with a Pentecostal or evangelical orientation to Christian parishes of the Evangelical Church in Germany or of the Roman Catholic Church with regard to their respective emotional culture.

We begin with a few comments on religion and religious emotions, and subsequently outline the specific methods of data collection and analysis. After presenting three dimensions of religious emotions to serve as a backdrop for the analysis, we will then focus on several selected findings, that is, quintessential empirical examples from the diverse and extensive data. “Emotional style” means thereby (in contrast to the definition coined by Reddy, 2008) the situational condensation of the communicational codification of the emotional, which is accessible for our observation and analysis. Additionally, we use the concept of “emotional regimes” that has been used by Riis and Woodhead (2010) to grasp the relations between religious emotions, symbols, and community. In the second part, we will deal with more substantial questions regarding the role of emotions in present-day Christian congregations in the German-speaking world. We will describe both the role of knowledge that is gained via emotions, and

knowledge about emotions each for the religious life. Both types are meant when we use the term emotional knowledge. In examining these questions, the role of visual media stands out in particular, which we will demonstrate through an initial analysis of ethnographic data on Pope Benedict's visit to Berlin in 2011. With the aid of the concept of mediatization, it will be shown that there is not only an increase in the usage of media, but that the media are in the experience of religious events influencing these experiences. We will then briefly discuss future work more broadly related to the meaning of emotion and religion in society.

Before turning to the question of the role of emotion in these Christian communities, we would briefly like to present some theoretical, sociological reflections on the relation of religion, emotion, and experience.

Religion, emotion, and experience

Emotion and experience

Many scholars have viewed feelings, emotions, and religion as closely related. Schleiermacher, who is often considered a founding figure of modern theology, for example, identified the essence of religion as "neither thinking nor acting," but as "intuition and feeling" (Schleiermacher, 1799/1996, p. 22). In addition, James, founder of the psychology of religion, gave priority to feelings as opposed to theological "formulas," thus explicitly opposing an intellectualized understanding of theology as a positive science. Otto, author of the classic work on religious phenomenology, stripped "the Holy" of its moral and rational components and saw the core of religiosity in what is "numinous," which in turn cannot be grasped through concepts. Yet, he assumes that it can be described through the "feeling-response... [that] must be directly experienced in oneself to be understood" (Otto, 1917/1958, p. 10)—the feeling of the *mysterium tremendum*.

This emphasis on feeling and emotion as the essence of religion, however, represents only one aspect of our reflections on religion. Schleiermacher's writings, the psychology of religion, and religious phenomenology also refer to the notion that religion is tied to a specific *experience*. There are major differences here between the substantialist conception that religion is established through an experience of the extraordinary—that is, of the holy or sacred, which must therefore be explicitly presupposed—and a functionalist conception in which religion is determined simply through the extraordinariness of the experience (which is based more on the experiencing person than on what is experienced). Nevertheless, the modern inquiry of religion is based not only on emotion but also on a concept of religious experience. Against this background, religion's connection to feelings and emotions represents a particularly modern dimension. Whereas in the course of the nineteenth century, experience became the acknowledged foundation of "empirical" or "experiential" science, the shift in the religious from experience to emotion is tantamount to a strategy which, alluding to Weber (1992), could be characterized as the irrationalization of religion. The modern ideology of secularization tends to see religion not only as the opposite of reason; it also refuses to acknowledge the reality of religious

experience and transforms it—following Comte, Nietzsche, and Freud—into a subjective transfiguration, an illusion, or simply an “irrational” emotion.

Emotion, meaning, and communicative action

Surprisingly, the very common secularist opposition between “irrational emotional religion” and “rational scientific modernity,” that we do not share, is subverted precisely by those authors who seem to argue for this very kind of modernity and its disenchantment. It was Weber who in *Economy and Society* (1978) declared the instrumental rationalization of action (and thus its economization) to be the fate of modernity, yet he did not assign emotionality to behavior. Instead he allowed for affectual (emotionally driven) action among his four ideal types of action. Although only marginally rational, affectual or emotionally driven action is characterized by what characterizes human action in general: it is meaningful. By incorporating emotion as an aspect of meaningful action, Weber also laid the groundwork for our sociological consideration of emotion. Just as the spirit of capitalism can be derived from the Protestant ethic, the meaning of emotion is also influenced by society and, in turn, influences social interactions. If we designate this meaning mediated by society as a form of “knowledge,” then we can also speak of *emotional knowledge*. As we will argue, the concept of emotional knowledge, especially with an eye toward religion, turns out to be particularly fruitful. By this concept, we mean both knowledge *about* emotions and knowledge that is acquired *through* emotions.

Here, it is important to consider that like knowledge in general, emotional knowledge is mediated quite tangibly and sensuously through communication or, more precisely—in referring to the acting, experiencing, and feeling subject—through “communicative action.”¹ For this reason, we are focusing specifically on the forms of communication with which knowledge about and through emotions are mediated. It is apparent that emotionality is by no means simply a side effect of religious communication. Instead, in a very special and to some extent innovative manner, religious communication particularly underscores emotional aspects. As we will show, visual communication assumes great significance for the dimension of emotional knowledge in religion. It makes it possible to mediate visual knowledge, and it is this visual knowledge that in particular emphasizes emotionality. In addition to the visual, other modalities (such as music, though we will barely touch on it) also play an important role, so that one must point to the special role of (multimodal) media to arrive at a broader understanding of religion in modern society. More generally, as the media increasingly pervade religious practice, emotion, and communication, and change their structure, one can speak of a *mediatization of religion* (Hepp & Krönert, 2009; Hjarvard, 2009).

Despite all the diversity in the ways in which emotion is expressed, we can identify various *emotional styles*. We refer to emotional styles to denote the situational aggregations of communicative codifications of the emotional, which we can observe and analyze. We thus use the term in a sense that is distinct from Illouz’s definition (2007, pp. 6–7) to the

¹ For a more elaborate notion of communicative action, see Knoblauch (2011).

extent that it is concerned not only with how a society deals with emotions, but in particular also looks at the performative level of emotions.

Three sociological dimensions of emotion

When we speak of communicative action or, for short, communication, we do not mean abstract selections that are carried out independently by the actors. Instead, we are referring to the sensory and physical performance of emblematic actions which, for actors as well as for observers, can be perceived, experienced, and thus interpreted. The carrying out of the action itself is referred to using the term *performance*. For this reason, the communicative—and thus always also multimodal—forms of emotional expressions that are performatively implemented within the frameworks of ritualized ceremonies (such as religious services) are a guiding principle of observational study. To document these communicative forms of expression, we take into account the interplay of aspects relating to language, paralanguage, gestures, facial expression, singing, dramatization, situation, and interaction. The analyses on this first dimension are based primarily on procedures of ethnographic observation and audiovisual data. Some of these data have been recorded by the authors, whereas other data are self-descriptions of congregations, taken, for example, from their websites.²

Our investigations focus not only on established Christian communities, but also on newly founded ones, especially ones in which a majority of their members share the same ethnic background. Through the founding of new congregations in recent decades, the broadened spectrum of the communities in Germany has become interesting and multifarious, including Evangelical, New Pentecostal, and Charismatic congregations, as well as the more mainstream communities of the Protestant and Catholic Churches.

When examining the performance of religious communication, we have to consider that today's Christian communities often incorporate new media not only for live visualizations during their religious services, but also as a means of portraying their church both outwardly and inwardly and to document their community life (Herbrik, 2012). Even so-called *church planting*, the intentional founding of new churches, is facilitated by the use of media (Fanning, 2009). A congregation's website plays a role here, in which videos and photographs are used intensively and extensively. Video and photographic analyses are thus almost self-suggestive methods of inquiry.

In a second dimension of analysis, we are interested in the emotional knowledge that is mediated by this communicative performance, that is, its meaning instead of significance for the actors and for feeling rules. To analyze how the communicative forms of emotion (whose performance can be observed and interpreted by the members of a community)

² Our methodical approach for field entry, selection of interviewees and data collection was guided by the principles of constant comparison (Glaser & Strauss, 1967), whereas our methods for the interpretation of data are based on video analysis (Knoblauch, Schnettler, & Raab, 2009) and Social Scientific Hermeneutics (Soeffner, 2004). We collected data from 25 congregations and several major Christian events and conducted 30 in-depth interviews with lay persons and pastors.

and what stocks of emotional knowledge can be evoked for several purposes, we carried out in-depth interviews with active members of the congregations. We asked interviewees, who we recruited with the aid of press releases, about the history of their beliefs, about significant events related to their religious life, and about their everyday religious practices. In addition to their respective descriptions of their own emotions, we documented the believers' reflections on the emotionality of their religion.

For instance, in the following example, "Mister R." assessed individual religions in view of their capacity to raise and nourish hope:

R: Umm, so I am someone, I deal with something, actually I tend, tend to deal with something objectively with less emotion and I have looked into various religions including Buddhism and Hinduism, and they are all, umm religions, umm that offer no pleasure. Hinduism is a very sad religion—you get reborn so many times until at some point you achieve nirvana. That is actually a very sad religion. Buddhism is also a sad religion (...) because in Buddhism there isn't even a soul, that is, very few even believe (in a) soul (because) you just dissolve into nirvana.

Interviewer: Yes.

R: For me Christianity is actually a religion that that umm also gives hope and that there is something else, and that there is life that continues after death.

Interviewer: Yes.

R: That is what attracts me (-) so much [Hmm].

The third dimension of analysis is based on the idea that the emotions we focused on and their communicative representations are linked to a social context that is conveyed through ritualized events, their social organization, and mediatization. We suspect a connection between emotional styles and the social milieus from which the members of religious groups are recruited, and are presently pursuing this connection in secondary analyses of existing data.

Knowledge and emotion

Knowledge about emotions

When speaking of emotional knowledge, a central concept is that of "feeling rules" (Hochschild, 1979). Which feeling rules are present in the congregations we investigated? In answering this question, we find very obvious and explicit feeling rules in Christian dogma. The best-known example of this would be the two commandments in the New Testament which actually represent feeling rules in a pure form. The Ten Commandments of the Old Testament refer mainly to concrete actions. They prescribe which actions are required of people and which are forbidden: "Thou shalt not kill," "Thou shalt not steal" (Ex. 20, pp. 2–26, KJV).

In contrast to this, it is interesting that the instructions given in the two commandments of the New Testament refer to the emotional sphere. "Thou shalt love the Lord thy God with all thy heart, and with all thy soul, and with all thy mind (37). This is the first

and great commandment (38). And the second *is* like unto it, Thou shalt love thy neighbor as thyself (39). On these two commandments hang all the law and the prophets (40)” (Matt. 22, 37–40).

The Bible also provides believers with assessment standards for various emotions, such as anger. It can be sinful if evoked through egoism or if it seems uncontrollable. However, anger can also be just, if directed against unjust or disrespectful actions. The most noted example of this is how Jesus was enraged and cast the money changers from the temple (see Matt. 21, 12).

These are but a few examples of the most obvious feeling rules that are anchored in the Judeo-Christian tradition. Aside from these explicit and “official” feeling rules there are also other, so-called sociocultural feeling rules. As our data show, there are different ways in which the believers are socialized into observing certain feeling rules or certain emotional styles that are meant to apply for a particular situation or group. In more active terms, this means that believers have a range of options in acquiring the emotional knowledge they need to not behave improperly in a certain religious context.

One example is that many of the recurring ritualized procedures in Christian churches are characterized by *emotional scenarios*. This is how, for example, the liturgical (or church) year determines the succession of Sundays and holidays, which are characterized by penitence during Lent and Advent, mourning between Holy Thursday and Holy Saturday, and joy at Easter and Christmas.

On a smaller scale, similar emotional scenarios can be recognized in the liturgy of the religious service. This includes some sections during which guilt is felt and acknowledged, and others for the joyful and—depending on the congregation—more or less enthusiastic praise of God and his son. Since all of these procedures and components of the liturgy are repeated regularly, the believers start practicing them from their very first visit to a religious service, therefore experiencing a socialization into the inherent feeling rules and the respective emotional styles.

We also identified explicit commands that urge believers to feel or express certain emotions. Song texts, for example, prompt them to feel joy and exaltation. In the course of participant observation, we saw the pastor of a Free Church congregation in Berlin who emphatically encouraged his congregation to express praise with greater enthusiasm by telling them that the members of his former congregation had demonstrated more expressive forms of joy and devotion. When singing the same song of praise, he said, they stood on the pews, danced, and clapped their hands. The Berlin congregation then made a great effort to present a similarly engaged performance of the called-for emotions.

This example is intended merely to illustrate the wide range of different emotional forms in expressing the same emotion, which can be socially desirable or undesirable within a certain group or event. This is why it is important for the individual not only to learn *which* emotions are appropriate, but also to internalize the *specific emotional style*. We speak of emotional styles because groups are characterized not only by consistent emotions, but through specific situational emotional preferences oriented toward the emotional scenario.



Fig. 24.1 Freakstock Festival. Source: <<http://www.freakstock.de>>.

To acquire or impart knowledge about the “appropriate” emotions and emotional styles, it is often not even necessary to use verbal language. Instead, the media and visualizations play a major role. On well-maintained websites of religious groups, you can find a large number of pictures and video clips. These media and (audio)visual products serve, for one thing, to advise on the emotional experiences that are possible within a group or congregation. They also serve as a kind of model of expression, offering patterns for how and which emotions can and should be demonstrated.

It should be kept in mind that knowledge about religious groups as well as the religious emotions themselves follow less and less a written pattern even in the Protestant sphere. Neophytes and also established members orient themselves along audiovisual models, whereby the role of music should not be underestimated. Visualization serves here as a mimetic “role model” of emotional communication, making this an incidence of the mediatization of religion (Hepp & Krönert, 2009). The media do not only convey the contents, they are incorporated into that what is conveyed. Of particular significance is the role played by popular forms of representation, which can be referred to as “popular religion” (Knoblauch, 2009). Especially in a photo series presented by Free Church congregations, the focus is not only on the liturgical events performed by clerics in the chancel, but also on other participants in the service or event. Our example in this case is the press portfolio of the “Freakstock” Festival that is accessible online (Fig. 24.1).

Knowledge through emotions

Whereas religious communication imparts knowledge about emotions, religious emotion is also treated as a source of knowledge. The experience of emotions is used to mediate

or make accessible and salient certain religious contents and themes. Emotions serve as a kind of “rational” method of gaining a better or correct understanding of religion and religious aspects, such as a passage from the Bible.

Bibliodrama (Radeck, 1998), a form of dramatic biblical investigation, and Bibliolog (Pohl-Patalong, 2010), a German form of interactive, group interpretation of Biblical texts, are two examples of how to implement this idea. Both techniques invite believers to take the role of certain Biblical figures who appear in selected Bible passages. The passage is then read aloud to the group by a moderator. The participants are supposed to try to work out the ideas as well as the emotions and moods that the Biblical figure might have experienced, thought, or felt. They are expected to portray them performatively in the case of Bibliodrama or to describe them verbally in the case of Bibliolog.

The aim is to envision what a certain Biblical figure might have gone through in his or her heart and mind. Believers are supposed to confront emotions and thoughts that could be relevant for a particular Bible passage, to discover what conflict a figure might have faced or what fears might have plagued him or her. The communicative part of this reenactment together with the others aims to create a specific form of Bible interpretation that is based in particular on the visualization of emotions.

A similar though less concrete approach can be observed in the case of the so-called Thomas Mass. This special format for a religious service was developed in 1988 in Helsinki (Haberer, 2002). Today it is celebrated also in a number of different countries. The Thomas Mass specifically addresses people who have doubts regarding the Christian faith, as is indicated also in the name of the event, which refers to the Doubting Thomas of the Bible. Thomas the Apostle did not believe the report brought to him of Christ’s resurrection. He wanted to see the miracle with his own eyes or even to have tangible evidence. Accordingly, physical and emotional experiences play a particularly large role in a Thomas Mass (Fig. 24.2).

The concrete elements of the Mass can be selected by the respective local organizational teams. Although the masses are celebrated in Protestant churches, each participant often has the opportunity to experience a brief personal interaction with a pastor and to be anointed. Other elements that are often used include the lighting of a candle or writing down of one’s own thoughts and feelings on a piece of paper and attaching it to a symbolic Western Wall. Participants frequently break up into smaller groups in order to meditate on a picture or a Bible passage or to experience their own body in the meditation. Organizers particularly appreciate unusual musical arrangements and replace the church organ with other instruments. During the Communion service, believers usually hold hands standing in a large circle around the chancel (Fig. 24.3).

In general, the Thomas Mass is conceived so that its different elements attempt to address *all the senses* of the believers (see also Meyer, 2006). New and rediscovered older Christian rituals and forms of communication are used in order to offer participants sensory and emotional experiences that tend to be rarely experienced in conventional religious services.



Fig. 24.2 Thomas Mass (a). Source: <http://www.kirchenkreis-siegen.de/images_news/thomasmesse_1.jpg>.

Visualization, mediatization, and emotionality

Both participant observation—which up to now we have implemented directly in events of various Christian congregations—and data gathered from the websites of individual churches, support the view of a growing mediatization of religion. This means that different media are introduced into religious communication, thus expands and transforms that kind of communication by incorporating the media and the knowledge that is imparted through the media. At the same time, the communicative situation itself is documented immediately and made accessible to be conveyed further.

For example, numerous churches have screens or monitors to project various kinds of information during the service (Fig. 24.4).

Such equipment seems to have already become standard in newer Free Church congregations. Although this is not yet the case to the same extent in older congregations, screens are now often positioned in or near the chancel, in particular regarding special forms of services (such as rock masses). What just a few years ago seemed exotic, has meanwhile



Fig. 24.3 Thomas Mass (b). Source: <<http://www.thomasmesse-koeln-bonn.de/images/salbung.jpg>>.

been worked into the liturgy in many younger congregations so that it is hardly perceived any more as strange or foreign. Bible passages on which the sermon is based are displayed by means of an overhead or computer projector. Also, prayers are to be recited by the entire congregation as responsories to the pastor, or the lyrics to the church songs are shown on the screen. In some cases, every single spoken or sung word within a religious service is projected onto the screen and supplemented by visual images.



Fig. 24.4 Taizé meeting. Source: <<http://www.citykirchberlin.de>>.

Particularly with respect to visualizing the words to prayers and songs, projection on a screen often replaces the song book or prayer book. This leads to an interesting change in the posture of congregation members when singing and praying. They no longer look down to read a book, and their backs are no longer curved nor their heads bowed. Their glance is instead directed up toward the screen. Their hands are free and can be raised, used for prayer positions and gestures or to hold hands with their neighbors.

Using means of projection makes it possible not only to repeat liturgical elements but also to incorporate video clips into the structure of the service. We observed this practice mostly in Free Church congregations, some of which had even installed several flat screens into the church interior. This way, presentation of video material can be worked into the sermon. This leads to an interesting interplay of direct address and the—at times emotionally evocative—stylistic means of the media that are available through the specific composition of moving images, spoken commentary, and text as well as background music.

We also observed effects of mediatization on the people attending the service. These effects play a role in terms of the emotional experience of religious events. At the major Taizé meeting³ in Berlin, what has traditionally been the most moving moment of the service practically lost its original character through the mass attempt of the majority of the event participants to record the moment. When the flame was passed from candle to candle, row to row, and participant to participant, many tried to capture this moment with their cell phones or cameras, although the organizers had explicitly asked everyone to refrain from taking pictures. Participants attempted perhaps to catch what newspapers called the “Taize feeling,” but with two effects. On the one hand, the flurry of camera flashes is evidence that many participants found this part of the service to be particularly impressive and worthy of holding on to. On the other hand, however, this use of media, which was intended to document the event to be shared with others, greatly affected the event itself, thereby changing its character.

Emotional regimes

Our observations of the papal Mass in the Berlin Olympic Stadium in September 2011 are insightful regarding concrete instructions for behavior, in this case directly with an eye towards the performance of emotions. It is particularly noteworthy how Pope Benedict XVI dealt with the emotions of the congregation. In contrast to the descriptive concept of emotional style, which remains implicit in religious communication, here it was a matter of an outright “emotional regime” (Riis & Woodhead, 2010). At the start of the papal Mass, an announcement was made, which was also broadcasted to television audiences worldwide, in which members of the audience were asked to refrain from cheering, clapping, or holding up banners (Fig. 24.5).

³ At the end of every year thousands of young Christians visit the respective European Taizé meeting that is organized by the Taizé Community located in France. See, for example, <http://www.taize.fr/en_article13315.html> (accessed April 21, 2013).



Fig. 24.5 Announcement during the Pope's mass at the Berlin Olympic Stadium. Source: TV broadcast of Pope Benedict XVI's visit to Berlin in 2011.

It is striking that the Church expressed its disapproval only of several “popular” forms of audience communication that could also occur at other “events,” such as applause or other means of expressing one’s approval. However, more “ritual” forms of audience participation, such as the frequent responsories in Catholic masses, were of course highly welcomed. They were supposed to serve to highlight the “religious,” the “sacred,” or—in the words of the Pope—the “mystery,” which exists in a decidedly Catholic understanding of jointly presented Christian and specifically Catholic rituals, in other words; in a particularly marked form of religious communication.⁴

The mystery is by no means understood as an abstraction. Instead, it is intended to be explicitly experienced in the joint religious service. To strengthen this aspect, the Benedictine emotional regime systematically excluded popular forms of communication. Whereas John Paul II had celebrated the Mass like a show that was simply appreciated by the audience, or where participants could acknowledge its separate parts through applause (such as during his Mass at Vienna’s Heldenplatz in 1998), Benedict distinguished the religious sphere in which people pray from Berlin’s “profane” sphere, as he also differentiated holy from profane time. There was no place here for applause, cheers, or the enthusiastic and populist shouting of “Benedetto.” Instead, visitors were treated as practicing Catholics who pray, intone responsories, sing (along with the choir), rise and are seated, kneel even without a pew kneeler, and either participate *en masse* in the Communion received from masses of priests or else remain silent. It was, however, not possible for this emotional regime to be carried out without exception. While traditionally in the Catholic Mass a series of priestly actions were conducted in silence, many of these periods of silence in the Olympic Stadium were filled—with the music of a singer, for example, which was reminiscent of the popular, somewhat

⁴ On the role of this marking of religious aspects and the ties to popular religion, see Knoblauch (2009).



Fig. 24.6 Pope Benedict in the Berlin Olympic Stadium. Source: Still taken from footage by Martin Zawadzki and Roman Pernack.

jazzy “sacro-pop” (contemporary worship music), which can also be heard in Protestant churches (mostly the mainstream Free Churches).

Popular aspects also occurred at the ritual periphery of the event. Whereas the Pope’s exit triggered thunderous applause in the middle of the solemn closing vocals (“Great God, we praise you”), his triumphant entrance into the Olympic Stadium clearly carried traits of the veneration of celebrities. All forms of behavior, such as cheering, waving flags and so forth followed this pattern, and to some extent even the religious personnel also joined in.

An in-depth analysis of recorded video footage of the Pope’s visit⁵ is even more fruitful. Here we can observe that even clerics celebrated this encounter with Benedict, such that it was marked less by deference to the *majestas* of the Pope, than it was an expression of adulation of a celebrity, as is also practiced with other celebrities. This reveals an even more profound change in the rituals that make use of media. On one of our video recordings of the event, we can see, for example, two nuns awaiting the arrival of the Pope, standing in the front row along the tartan track of the Olympic Stadium.

One whips out her camera as the Pope drives past them in his Popemobile (Fig. 24.6). Instead of any sort of familiar religious gesture, both of the nuns look, instead, enthusiastically at the (presumably good) result on their camera’s display—even while the Pope in person is still there moving along right before their very eyes. Such changes in ritual can be characterized through the term *mediatization*. Without expounding here in detail on the term (see Knoblauch, 2013), it should be emphasized that this mediatization changes conventionally familiar forms of piety, and in many cases, also adapts them to nonreligious forms. With regard to collective emotions, these new forms have to be considered

⁵ We would like to express our sincere thanks to Martin Zawadzki and Roman Pernack for making the audiovisual material available to us.

when it comes to the question of how emotions are expressed, and especially how they are socially constructed in the course of social interactions that include the usage of media devices and are newly influenced by media usage.

The devout practice of kneeling before the Pope and the embodied charisma, both of which continued to surround Pope John XXIII, not only gave way to frenetic cheering that virtually turned John Paul II into a pop star (see Bergmann, Soeffner, & Luckmann, 1993); the veneration itself has been mediatized, as we can see in the case of Benedict XVI, to become an act of documentation that carries more significance in the situation than the event being documented. This applied well to the mystery of the event, as the Mass was performed as something that had a greater media presence than an actual physical presence. Not only was the event continuously recorded by thousands of cameras (belonging to people who were at times praying), but the Pope and the accompanying ritual ceremony was followed more closely on a large screen, which for most people was opposite the stage, so that the congregation often turned away from the altar and watched the screen on the opposite side. Even the stillness that is a main element of the emotional regime was broken by the media. When television cameras tried to film it, the stillness was transformed by media-conscious reactions from the audience whenever a camera appeared. Instead of devotion, the camera focuses on smiling, the waving of hands and even, as the camera moves into the distance, arm waving. Television coverage thus encounters a paradox. Wherever it attempts to observe stillness as a form of reverence or prayer, it triggers a reaction as television. The camera, as we know, no longer only records and documents the situation, it changes it (Keppler, 1986).

Outlook: social milieus and the emotional styles of religion

It is precisely a monumental event like that of the papal Mass in Berlin in 2011 which draws attention to the express significance of emotion for religion today. It indicates the emotional regime that religious groups and organizations exercise. In particular, the fundamentally marked forms of religious communication of Pope Benedict XVI point to the role played by different emotional styles in present-day Christianity. The emotional styles are acquired through these forms of communication, as “knowledge about emotion.” They are linked with emotional knowledge, which leads subjects not only to externally participate in the religion, but to become emotionally integrated as it were *into* the religion.

In contrast to an assumption we suggested at the start of our work on this project, the emotional styles by no means follow any sharply dichotomized pattern that can be divided into ecstatic and enthusiastic variants. The emotional styles also cannot be clearly attributed to certain denominations or religious groups. As the complex orchestration of even the most simple religious events shows, the emotional styles are also very complex, in terms of both their communication forms and their feeling rules, and they are certainly far more complex than the clear-cut bifurcation of the Benedictine Mass might lead one to believe. In order to grasp this complexity, it appears promising to look at the emotional styles of religion not in isolation, but instead to relate them to the cultural and communicative forms of expression in society as a whole. Just as religious communication either borrows greatly from popular culture or else dissociates itself from it, the religious networks, groups and organizations

thus defined are also part of a culture whose forms of expression are used as means of social differentiation and association. The complexity of the emotional styles, therefore, makes it impossible to assign the indicated social differences simply to different social classes. Instead, we presume hypothetically, they follow the structure of social milieus.⁶ We no longer need to imagine these milieus as cohesive in terms of national societies. They still distinguish themselves through certain socioeconomic characteristics, and they are also determined by different value orientations. Beyond that, however, the forms of internal communication and knowledge play a determining role for social milieus. Precisely because emotional knowledge and emotional styles of communication are so significant for religion, one can assume that emotional knowledge is very significant for social milieus above and beyond religion. When examining religion, our observations support the theory within the sociology of religion that religion can be and has been transformed. Despite all processes of secularization and the many prophecies of doom, religion is definitely not disappearing from today's society. Instead, it is changing its form. The sinking numbers of members in the major churches is contrasted by the steady building up of a multifaceted plurality of religious and spiritual communities, which distinguish themselves through mediatization, visualization, and a clear emphasis on emotionality. Emphasizing emotionality should not be understood as a one-dimensional emotionalization, however, as the research of Hervieu-Léger and Champion (1990) or others suggest. The emotionality of religion never stands alone and remains subjective. It is not an emotionality for emotion's sake, such as in the ecstatic fun culture. It instead has an intentionality (generated by means of religious communication), or a referentiality, which can be understood personally in a Christian sphere as God, or at least (for example, in esoteric spirituality) as transcendence. Whereas we have attempted at least to begin to underline the significance of emotion and its forms for religion, it remains to be clarified how this plurality is constituted in detail, and if and how it can be brought into the context of the social milieus of globalized societies.

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⁶ The notion of social milieu we are here referring to builds strongly on the suggestion by Schulze (1992) and Bourdieu (1984).

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Section 7

Collective emotions in online social systems

Chapter 25

The role of sentiment in the social web

Mike Thelwall^a and Arvid Kappas^b

^aUniversity of Wolverhampton and ^bJacobs University Bremen

Emotions are important to many human activities, including those that take place using the Internet (i.e., online). The expression of subjective experience and evaluative judgments is important in the social web for smooth interactions and for building and maintaining communities. For example, demonstrating empathy or support may help to build friendships in social network sites or to maintain friendships in them over time. Expressions of shame or regret can repair transgressions with regard to relational consequences. In contrast, in discussions of news and politics, a degree of negativity seems to be essential to trigger interactions, and is also important when reviewing films or products online.

Expressing emotions in text does not necessarily reflect what the writer feels at the moment of writing, but can also be interpreted as a speech act with a particular goal in a particular conversational or interactional context. For example, to state “I am sorry for your loss” may be an appropriate response in following convention and relationship maintenance, even if no emotion is felt by the sender at the time of writing. In other words, the relationship between emotion in text on the one hand and emotion in the sender and receiver on the other hand is complex and may occasionally even not be apparent to an observer. However, regardless of the question of the relationship between emotions in text and emotions in the sender or receiver, it is possible to measure an observer’s perception of the emotional message of a text. To avoid a confusion of emotion in the sender or receiver with properties of the message the term *sentiment* is used here by convention to refer to “emotions expressed in a message.”

This chapter introduces the study of sentiment and emotion in online interactions, discusses ways of expressing sentiment, gives a brief overview of methods to automatically detect sentiment in social web texts and shows how these sentiment analysis methods can be applied to large-scale studies of the social web. The chapter includes case studies of sentiment analysis in Twitter, YouTube, and social network sites, exploring homophily (the tendency of people to connect with others that share common characteristics) and the role of sentiment in online discussions and concludes by mentioning practical applications of the methods and theory.

Emotions during online interactions

Emotions are a central aspect of our lives. They have a long evolutionary history that has shaped why and how emotions are elicited, what types of changes concurrently occur in our brains, in the body, subjectively in how we feel, how we express emotion-related responses toward others, how we regulate our emotions and how our emotions regulate our behavior in turn (Kappas, 2011). Measuring emotions involves necessarily taking processes inside of individuals as well as between people into account. In fact, one of the most interesting insights in recent years in scientific emotion research relates to understanding how social emotions are. Not only are they typically elicited in social contexts, but displaying and regulating emotions has an immediate impact on interactions as well as on the development and maintenance of relationships in the long run. This volume testifies to the complexity of the social nature of emotions when considering collective emotions.

Although emotions seem to be very personal in nature, they can be studied systematically in the laboratory. Such research has suggested that there are both consistencies across people, as well as highly individual processes. This reflects biological constraints that are shaped in sociocultural contexts and the learning history of every individual. At this point, there is little support for extreme constructivist positions holding that all emotional processes are mere social constructs. On the other hand, it is obvious that social influences shape all facets of emotions, even before birth. As much online communication is still textual this is even more important as language and language use are subject to sociocultural construction. Nevertheless, it is likely that there are universals with regard to the functions that online networks can play in generating and moderating collective emotions—this becomes very evident in the role social media have increasingly played in social conflicts in all parts of the globe (e.g., in the context of the “Arab Spring,” see Howard & Hussain, 2011).

Emotions in online interactions are a special case of emotions in everyday life (see also Derkx, Fischer, & Bos, 2008). While many jokes have been made about use of media such as Twitter for apparently irrelevant personal messages (“I am having breakfast now”), personal messages relate often to external events that elicit an emotion that the user wants to share (see also “Online sentiments as reactions to offline events: blogs and Twitter” section). The concept of the social sharing of emotions is particularly relevant in this context and has recently seen increased interest (Rimé, 2009; see also Páez & Rimé, Chapter 14, this volume). Understanding the mechanisms of the social sharing of emotions is highly relevant for the understanding of why emotions form an important part of online communication between users.

Obviously, interest in analyzing emotions in online communication is a logical consequence of the rapid increase of mediated communication, particularly in the context of social networks, but it also offers the promise of better understanding of certain social processes that do not depend on whether communication is mediated or not, such as the spreading of information from person to person or the maintenance of social networks.

There are certain features of the medium in which the interaction occurs that shape emotions and their communication (e.g., degree of anonymity; modalities, such as pure text vs. rich text, text vs. images, static vs. dynamic; delays and lack of synchronicity), but many of the processes are general in nature and we can learn much from research in other (offline) contexts (Kappas & Krämer, 2011). In general, studying emotions during online interactions requires a focus on processes that are similar across many people while being cautious regarding aspects that tend to differ from person to person. This poses a challenge for the assessment of emotions. While qualitative approaches are well able to deal with interindividual differences and idiosyncrasies, they have drawbacks, particularly with regard to coping with large amounts of data. Quantitative approaches, in turn, are typically defined in terms that facilitate analyses of larger bodies of data. While it would be possible to optimize any sentiment detection for particular individuals, in practice, large numbers of statements from many different users need to be analyzed and idiosyncrasies are not typically considered. However, even with large numbers of users it is possible to take into account certain characteristics (e.g., gender, age, occupation, special interests) that might be systematically associated with particular groups within a particular type of site (e.g., forums regarding aging or dating) or if there are norms evolving that relate to the standards of politeness and etiquette (e.g., the use of the word “love” in MySpace, see Thelwall, 2009). Similarly, the way emotions are conceptualized (e.g., discrete emotions vs. dimensional approaches, see Kappas, 2010) is important in this context. It is important when considering online affective communication that the online world and the offline world are frequently connected and stories, information, and sentiments are likely to hop from medium to medium. In fact, this is one of the grand challenges in studying sentiment in the social web because we typically do not have access to the offline nodes of communication (e.g., a conversation at the kitchen table).

Most current research regarding sentiments expressed online relates to textual communication. As communication in the social web becomes increasingly multi-modal, new paradigms must be developed to tackle how still and dynamic images, sound, and mediated face-to-face communication contribute to the spreading of information and emotion in cyberspace.

Expressing sentiment in textual online communication

The obvious way in which to convey sentiment in textual online communication is to describe the sentiment using words that commonly refer to emotional states, such as *happy*, *sad*, and *angry* or using words that express a sentiment-related judgment or evaluation, such as *pleased*, *appreciate*, or *dislike*. For example, the following message conveys multiple sentiments, “I was very happy during my visit but didn’t like your over-friendly dog.” From a linguistic perspective, however, the words used often must be interpreted in context rather than in isolation to understand their meaning. This is partly due to polysemy, as in the case of the word *like*, which can be positive or neutral (as a comparator). It is also due to more subtle context differences. For example, the word *love* in “I love you” is

more strongly positive than in formal endings such as “Love, Jenny.” In addition to direct expressions of sentiment, sentiment can also be expressed or modified indirectly through devices like irony and sarcasm (Gonzalez-Ibanez, Muresan, & Wacholder, 2011; Reyes & Rosso, 2011). Such devices often exploit wider contextual knowledge. For instance, “Obama is a great president” could be taken at face value or as an ironic depending upon the political opinions of the author, if known.

Offline interpersonal communication typically involves multiple channels through which information is conveyed, extending beyond the meaning of any words spoken. For example, a speaker may intentionally or unintentionally modify or give context to the meaning of her words using gestures, facial expressions or other body language, or through vocal intonations. Hence, in online textual communication there seems to be a risk that messages will be misunderstood because of the lack of accompanying non-verbal information (Walther & Parks, 2002). In practice, however, it seems that users have developed a variety of means to convey information in textual form that would otherwise be conveyed non-verbally. Much of this information is explicitly about sentiment.

A well-known textual device for adding context to a message is the emoticon. Many emoticons express a sentiment, such as the smiley :) to convey happiness, but others convey an absence of sentiment :| or another meaning ;) such as the presence of a hidden implication (Derks, Bos, & von Grumbkow, 2008). Emoticons seem to have developed a mass user base primarily through mobile phones (Grinter & Eldridge, 2003; Thurlow, 2003), but are widely used in online communication (Baron, 2003; Crystal, 2006), including in social network sites (Thelwall, 2009).

Another common difference between the standard language and text in computer-mediated communication is that the latter may include abbreviations, such as, in English, *u* for you, and shortcuts, such as *m8* for mate, to save time and may even contain deliberate misspellings to reflect a dialect, or to convey an informal or humorous context (Grinter & Eldridge, 2003; Thurlow, 2003). These may help to convey a positive or warm tone to a message without directly expressing any specific sentiment.

Finally for textual mechanisms, deliberate misspellings in the form of repeated letters in a word can also be used to express sentiment by adding emphasis to a sentiment word or by adding energy to a neutral word, leading it to be typically interpreted as positive. For instance, the message “I haaaaate your dog” could be interpreted as emphasizing the word *hate* in a way that is possible in spoken language through vocal intonation. Similarly, “Stevieeee” could be interpreted as a cry of pleasure at “meeting” someone online and hence as expressing a positive sentiment.

In addition to these textual mechanisms for expressing sentiment, some systems allow members to embed graphics in messages and these can also be used to express a sentiment. This was apparently common in the social network site MySpace (Salimkhan, Manago, & Greenfield, 2010). Some environments also allow members to explicitly set an emotion for a message or their current mood by selecting an icon from a pre-defined set, as was the case for LiveJournal (Mishne, 2005) or, currently, Instagram.

In summary, there are many different ways in which sentiment can be expressed by the authors of texts in the social web and elsewhere. Although some of the methods may conform to standard grammar rules, others include new methods of expressing sentiment that take advantage of the linguistic flexibility that seems to be the norm in the social web. Although this section has focused on English texts, it seems that the general conclusions are likely to be applicable to any language that is commonly used in the social web (Danet & Herring, 2007).

Automatically detecting sentiment in social web text

This section discusses a selection of automatic computer-based methods to estimate the amount of sentiment present in an online text. The emphasis here is on intuitively explaining why it is possible to automatically extract sentiment from text and what the limitations of the automatic approach are rather than giving a detailed or exhaustive summary of the methods available (for an excellent introduction, see Pang & Lee, 2008). Whilst the methods discussed here are applicable to any kinds of text, some aspects of the methods are specifically designed for social web texts.

Automatically extracting sentiment from text is known as *sentiment analysis* or *opinion mining* and this research topic has attracted significant interest (workshops and small conferences) within computer science and within computational linguistics. The term “opinion mining” stems from the focus of most early (and current) research on extracting the opinions of consumers about products from online comments and reviews, and applying the results to market research and customer relations management systems. This chapter is concerned with sentiments and emotions rather than opinions and judgments, however, and so the term sentiment analysis is used even though researchers tend not to differentiate between the two terms for the field.

There are two broad common approaches to sentiment analysis: machine learning and lexical. The machine learning approach is not discussed much here because, although very successful in many cases, it is essentially a mathematical, black-box approach that sheds little light for the uninitiated on the underlying reasons why sentiment may be identified in text. One way of applying machine learning is to start with a collection of 1000+ texts that have been coded for sentiment by human annotators and then convert each text into an unordered list of all the one- to three-word phrases it contains. A machine learning algorithm can then be used to identify the phrases that commonly associate with particular sentiments and then use these phrases to predict the sentiment of any new document that is introduced (Pang, Lee, & Vaithyanathan, 2002; Turney, 2002). For instance, the method might learn that the phrases “happy,” “mum visiting,” and “children playing outside” are normally in positive documents and would thus classify the document “I am happy because of mum visiting and the children playing outside” as positive. This method is statistical, however, and is likely to make mistakes, particularly when unusual phrases are used. Hence the sentences, “Mum visiting makes me blue” and “children playing outside broke my windows” could be misclassified.

In contrast, the *lexical* approach to sentiment analysis attempts to deduce the sentiment of a text from the known normal meanings of the words primarily contained in the text. Hence if a sentence contained the word “love” then a lexical algorithm would use its knowledge that “love” was positive to classify the sentence as positive, unless other words in the sentence indicated a different outcome.

Although not strictly speaking a sentiment analysis algorithm, the psychology-based text analysis program LIWC (Linguistic Inquiry and Word Count) is widely used for its simple approach (Pennebaker, Mehl, & Niederhoffer, 2003). It contains a list of words and word stems (e.g., *excruciat**) with known polarity (i.e., positive or negative) and reports how many matching positive and negative words occur in any text. The list of words and word stems was created by a set of human judges.

Sentiment algorithms go further than LIWC and predict the overall sentiment of a text using a specific rating scheme, such as one of the following:

- ◆ Positive/negative/neutral: the overall sentiment of a text is positive or negative or the text either contains no sentiment (sometimes described as objective) or its sentiment is balanced. Sometimes texts are assumed to be subjective and so the neutral category is not allowed (Pang et al., 2002).
- ◆ Negative to positive scale: the text is given a numerical score, such as any integer in the range -5 (very negative) to $+5$ (very positive) (Taboada, Brooke, Tofiloski, Voll, & Stede, 2011).
- ◆ Dual positive and negative scale: each text is given a separate score for negativity, such as from -1 (no negativity) to -5 (strong negativity) and for positivity, such as from $+1$ (no positivity) to $+5$ (strong positivity) (Thelwall, Buckley, & Paltoglou, 2012; Thelwall, Buckley, Paltoglou, Cai, & Kappas, 2010). The rationale for a dual score is the emotion psychology belief that humans can feel positive and negative emotions at the same time and that there might be separable systems in the brain that are associated with concurrent processing of positive and negative affordances (Norman et al., 2011). Positive and negative sentiment can also be expressed simultaneously even in short texts, such as “miss you.”
- ◆ Fine-grained emotion scales: each text is scored for a range of different emotions rather than just positivity and negativity. For example, a text may be scored for anger, disgust, fear, joy, sadness and surprise (Strapparava & Mihalcea, 2008).

An example of a lexical sentiment analysis program is SentiStrength (<<http://sentistrength.wlv.ac.uk/>>; Thelwall, Buckley, & Paltoglou, 2012; Thelwall et al., 2010). This uses the dual positive and negative scale and is designed for the short informal texts that are found on the social web. SentiStrength is primarily based upon a list of 2310 positive and negative words and word stems, each of which has been given a positive or negative score in the range $1-5$ by a human coder. SentiStrength parses sentences fed into it and searches for words from its sentiment list in them, assigning the largest positive and negative score to each sentence. For example, three sentiment word list terms are *angr** (-4), like ($+3$)

and dull (-2). Hence the sentence “I am angry because you like the dull movie” would score -4 (maximum of -4 and -2) *and* +3.

SentiStrength has a range of rules for dealing with common ways in which the sentiment of a term is modified, including the following:

- ◆ Negation. A negating word (e.g., not, don’t) before a sentiment word reverses its polarity or neutralizes it.
- ◆ Booster words. A booster word (e.g., very, slightly) increases or decreases the sentiment strength of a word. For example, “very angry” would score -5.

In addition, SentiStrength has some rules to help identify sentiment expressed in non-standard ways in text, including the following:

- ◆ Emoticons. A list of positive and negative emoticons is used.
- ◆ Punctuation. Exclamation marks at the end of a sentence increase the strength of sentiment expressed. Neutral sentences (score -1, +1) are scored as mildly positive (-1, +2) instead.
- ◆ Emphatic spelling. Additional letters inserted into a sentiment word increase its sentiment strength (e.g., “haaaappy” is +4 because “happy” is +3) or make neutral words positive (e.g., “Miiike” would score +2).

In common with all sentiment analysis software, SentiStrength is imperfect, making frequent mistakes. Nevertheless, its accuracy is high enough to be applied to large-scale sentiment analysis to detect sentiment-related patterns in the social web. For such purposes it is strongly advised to use a lexical rather than a machine learning approach. The latter may identify spurious patterns by associating people (e.g., Obama) or topics (e.g., Israel) with predominantly positive or negative sentiments. Hence the “sentiment patterns” discovered by machine learning algorithms may be topic patterns or people patterns instead, unless such terms are excluded by the machine learning algorithm (Thelwall, Buckley, & Paltoglou, 2012). Methods such as this focus on common variance in language use and assume that interindividual and contextual variance are error terms that are smaller than the common tendency.

The performance of SentiStrength has been shown to be approximately the same as human coders. In other words, SentiStrength agrees with human coders about as much as they agree with each other. Although SentiStrength is imperfect this means that it is suitable to use for the large-scale classification of social web texts because humans would not do this task better, would take longer, and would probably cost more. SentiStrength performs least well on political and news-related arguments. This is because of the widespread use of irony and sarcastic irony in particular, which typically fools SentiStrength (and would often fool human coders too: Reyes & Rosso, 2011). For example, “Bush will be glad more civilians have died” would receive a positive score for “glad” even though this is a wholly negative sentence. While the relationship between emotions expressed in text and the emotional reactions of readers is complex (in some cases a positive statement of an enemy can be negative or inversely a negative statement can elicit positive reactions),

a moderate and positive correlation ($r = 0.67$) was found between SentiStrength scores and subjective evaluations in response to forum posts in our own research (Paltoglou, Theunis, Kappas, & Thelwall, 2013). Thus, there is a clear relationship between sentiment in text and emotional response in terms of affective valence. This finding in turn is of course of particular relevance in understanding the genesis of collective emotions in response to Internet contents.

Online sentiments as reactions to offline events: blogs and Twitter

The development of sentiment analysis applications and the proliferation of public social web texts have led to a situation where researchers can gauge public reactions to offline events to some extent by measuring the sentiment of associated social web texts. For instance, during the UK leaders' debates for the 2010 general election news media could gauge public reactions to each leader either by searching and reading random texts mentioning their names during the debates (i.e., a manual approach) or by using sentiment analysis software to continually monitor the proportion of positive and negative tweets mentioning each leader. This method has serious limitations because, despite a large user base, Twitter users are not representative of the general population and because political machines could react by organizing mass tweeting. Nevertheless, a similar approach has been used by social scientists to investigate various social phenomena, accepting the limitations of the methods.

One high-profile example of sentiment analysis applied on a mass scale used both online and offline texts. With the aid of a pre-classified list of sentiment-related words ("ANEW"; Bradley & Lang, 1999), the study analyzed changes in sentiment over several years using pop song lyrics, presidents' speeches, and blog posts (Dodds & Danforth, 2010). They found temporal, geographic and age-related trends in overall sentiment. Another study examined the sentiment of US tweets over time, finding users to be happiest in the morning and after work (Golder & Macy, 2011). It is not clear, however, whether these fluctuations were caused by formulaic language, such as variations of "good morning."

A similar approach was taken by an investigation into the relationship between offline events and tweets (Bollen, Pepe, & Mao, et al., 2011). A comparison of the two suggested that "events in the social, political, cultural and economic sphere [...] have a significant, immediate and highly specific effect on [...] public mood," as expressed in Twitter in terms of tension, depression, anger, vigor, fatigue, and confusion. For example, overall tension increased dramatically on the day of the US elections. An online–offline relationship also exists between relevant Tweets and US politics and consumer confidence in some cases (O'Connor, Balasubramanyan, Routledge, & Smith, 2010).

Another study focused on specific media events reported in Twitter and identified tweets related to them, investigating whether offline sentiments were reflected in tweets and whether the sentiments of tweets could be used to help detect major media events early on. The study identified the 30 most tweeted events during one month and

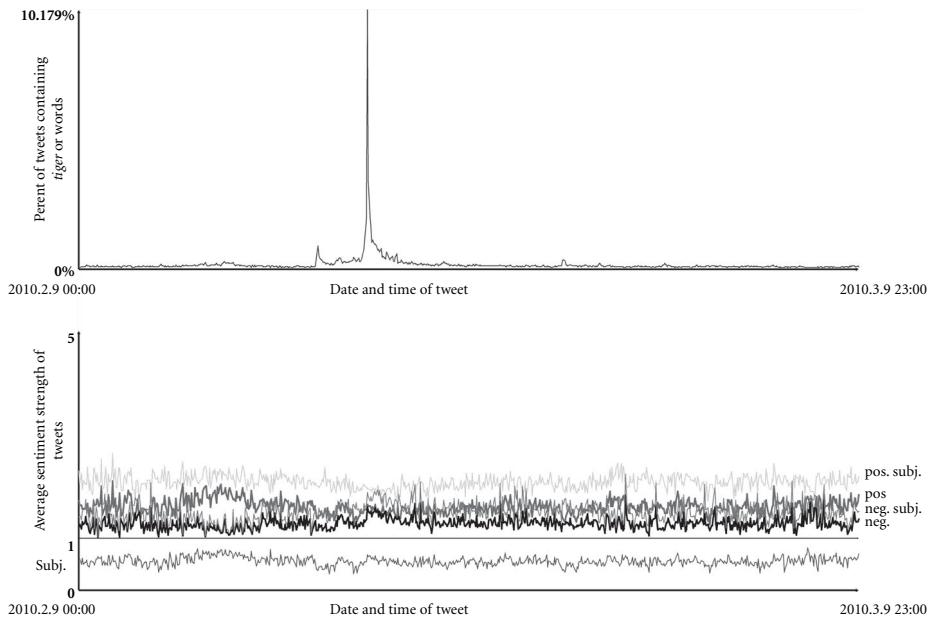


Fig. 25.1 Sentiment strength (bottom) and volume of tweeting (top) for tweets containing “Tiger” or “Woods.” The lower graph is split into two. The lower section (y axis 0 to 1) reports the proportion of matching tweets that are subjective (i.e., contain indications of positive and/or negative sentiment). The upper section (y axis 1 to 5) reports the average positive negative sentiment strength (thick black line), average negative sentiment strength for subjective tweets (thin black line), average positive sentiment strength (thick gray line) and average positive sentiment strength for subjective tweets (thin gray line). At the peak of tweeting, 10.2% of all English Tweets contained these terms (top) but this gave rise to only a small increase in average negative sentiment strength (bottom).

used SentiStrength to assess the extent of change in sentiment when the peak occurred (Thelwall, Buckley, & Paltoglou, 2011). The results showed that major events were typically associated with a small (6%) increase in negative sentiment even if they were positive events (e.g., the Oscars). This suggests the importance of negativity in triggering discussion but the smallness of the sentiment change was surprising. A possible reason was that Twitter’s 140-character limit and emphasis on speed may encourage users to tweet minimal information and omit sentiment, perhaps in the belief that their followers would infer their emotional reaction to a news story from its content and their tweeting of it. Fig. 25.1 is a graph of one of the top 30 events, showing a small increase in negative sentiment and no change in positive sentiment.

The role of collective sentiments in online interactions

This section reviews research into the role of sentiment in online communities or online interactions. Much of the research comes from the European Seventh Framework

Programme project *CyberEmotions: Collective Emotions in Cyberspace*, of which the authors were members. This project investigated the role of sentiment in communication online, especially in situations where the emotions of individuals affect and/or are affected by the emotions of others in a systematic and observable way.

Emotions are known to be important for interpersonal communication but the existence of large collections of social web messages in various formats allows large scale research into patterns of sentiment in communication. One perhaps unsurprising finding is that there can be homophily in the sentiment expressed between communication partners in social network sites. For example, people tend to express similar levels of sentiment to the sentiment expressed by their social network site “Friends” compared to random other members of the same social network site, at least in the case of MySpace (Thelwall, 2010) and the same is true for the general happiness of Twitter users (Bollen, Gonçalves, Ruan, & Mao, 2011). Results from simulations of emotional agents online show that specific group phenomena can arise during interactions, even when the agents obey simple laws (Czaplicka & Holyst, 2012; Schweitzer & Garcia, 2010), and this supports the idea that patterns of emotion can naturally occur during online interactions.

It is important to note that the typical type of sentiment expressed varies according to the environment used. For instance, whilst positivity seems to be the norm in social networking sites, presumably because these typically host friendly interactions, and YouTube, perhaps because people feel more motivated to leave positive than negative comments, negativity seems to be more common in discussion sites for news and politics (Thelwall, Buckley, & Paltoglou, 2012). Hence, the social web is emotionally heterogeneous space and users who switch between different sites may need to modify their expressions of sentiment in response.

A key theme in several different studies is that negativity drives interactions. In other words, the presence of negativity in social web texts seems to generate more replies or discussions than average. A study modeling sentiments expressed in the BBC News discussion forum web site found, for example, that the more negative the contributions at the start of a discussion, the longer they were likely to continue (Chmiel, Sienkiewicz, Paltoglou, et al., 2011; Chmiel, Sienkiewicz, Thelwall, et al., 2011). Negative sentiments, and perhaps underlying negative emotions, were seen as being the fuel of discussions, with conversations finishing when this fuel had been expended. A possible explanation for this is that arguments produced the longest discussions, which finished when the argument was resolved. Another study examined the sentiment in the comments on a large sample of YouTube videos. Although negativity was detected in only a quarter of comments and positivity was much more common, videos with a higher average negative sentiment in comments tended to also have more comments: negative sentiment again being associated with longer discussions (Thelwall, Sud, & Vis, 2012). Moreover, individual comments were more likely to receive a reply if they contained negative sentiment. From a theoretical perspective, these observations have been corroborated by network based simulations of emotions, showing that negative emotions are particularly effective

in forming communities in the sense of groups of people that are prepared to interact (Mitrović & Tadić, 2011).

Successful modeling involves conceiving the communication process in large collectives by considering the emotional state of senders, the sentiment in the message, the emotions modulated in receivers and how this state affects their tendency to continue to contribute to ongoing discussions and how they subsequently contribute. For example, mathematical models suggest that arousal in the sender, sentiment in the message, or arousal induced in the receiver, can influence the spreading of emotions from person to person in complex networks (Schweitzer & Garcia, 2010; Berger, 2011). Laboratory studies measuring physiological and subjective aspects of emotional states of individuals who are reading and writing posts have related the sentiment of these posts to the states elicited, supporting these notions (Kappas, Küster, Theunis, & Tsankova, 2010; Kappas, Tsankova, Theunis, & Küster, 2011).

Conclusion

This chapter has argued for the importance of emotion and the expression of sentiment in mediated interpersonal communication. When interacting online in informal situations, participants seem to frequently express sentiments using standard language or with new methods developed for computer-mediated communication. These sentiments can be automatically detected and analyzed using sentiment analysis software at approximately human levels of accuracy in some cases, especially in the absence of sarcasm and irony. Research into patterns of online sentiment in the social web has exploited the availability of sentiment analysis software to conduct large-scale investigations into the role of sentiment online. This has shown sentiment homophily in social network site friendships, relatively small changes in sentiment in Twitter associated with major events, and the importance of negativity in starting and sustaining discussions in some online contexts. Such results are important first steps in trying to describe and explain phenomena related to collective emotions in cyberspace.

Following the theoretical research into online emotions discussed earlier, some projects are starting to pro-actively detect and harness sentiment as part of online interactions, going beyond the original uses of opinion mining to gain consumer feedback from product reviews (Pang & Lee, 2008). Sentiment can play a role in virtual and embodied chat systems. For example, an automated chat system could detect sentiment in text written by a human and use this information as part of its decision about how to respond (Skowron, 2010). It seems logical that a response that is appropriate on an emotional level would be better received than one that was not. A virtual reality system has gone further than this and tuned its avatar's facial expressions and body language to match the sentiment of the text discussed by real and artificial agents, providing a more realistic experience for the human participants (Gobron, Ahn, Paltoglou, Thelwall, & Thalmann, 2010; Skowron et al., 2011). We can expect to see increasingly more emotion-aware computer systems in the future, and hopefully ones that make our lives and jobs easier and more pleasant by taking our moods and emotions into account when interacting with us. One of the critical

needs for this relates to embedding the detection of emotion into a larger theory of interaction that also takes the social ecology into account (Kappas, 2010).

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Chapter 26

Modeling collective emotions in online social systems

David Garcia, Antonios Garas, and Frank Schweitzer
ETH Zürich

Every day, millions of Internet users leave online traces that are publicly accessible. Data about forum comments, video downloads, or product reviews provide a valuable insight into human online behavior. The retrieval of datasets of unprecedented size may eventually also allow testing of hypotheses or validation of theories that have been developed in the social sciences, for example, about preferences, social influence (Lorenz, 2009; Onnela & Reed-Tsochas, 2010), trust, and cooperation (Walter, Battiston, Yildirim, & Schweitzer, 2011). This recent scientific development has led to the emerging field of *computational social science* (Lazer et al., 2009) which combines methods and tools from different technical and social disciplines. Also, psychology can benefit from this development by getting access to data without designing expensive experimental setups of limited size. For example, the analysis of *Twitter messages* allows studying the influence of the circadian cycles on human mood (Golder & Macy, 2011), and sentiment analysis of large-scale datasets reveals patterns of emotional expression predicted by earlier theories (Garcia, Garas, & Schweitzer, 2012).

A special feature of online communities is the frequent occurrence of collective emotions, which are not so easily observable in offline interaction. Spontaneously, large numbers of users share similar emotional states, due to their ability to reach many other users in a quick and often anonymous way. Such collective emotions can result from exogenous as well as from endogenous causes. For example, external events, such as a natural disaster, are able to trigger the online expression of emotions of millions of users. But collective emotions can also be created within online communities, for example, in forum discussions (Chmiel et al., 2011).

Our aim is to study emergent collective emotions, as their dynamics and preconditions can be studied based on the textual expressions of users in online communities. Online data allows us to precisely measure how and when collective emotional states emerge, but the analysis of this spontaneous behavior cannot be simply reduced to the activity of single users. Instead, these collective states should be understood as emergent phenomena resulting from the interaction of a large number of individuals. In our approach, we try to relate the statistical regularities observed in online communities to

the interactions between users. The distinction between the micro level of individual users and the macro level at which their collective behavior can be observed is one of the specific features of the theory of complex systems. Over the last 40 years, methods and tools from computer science, statistical physics, and applied mathematics have been utilized to address this micro-macro link and to predict the collective dynamics of a system from individual interactions of many system elements or agents. Agent-based modeling provides a useful approach to understand collective phenomena by studying the rules of the agents involved. In particular, some agent-based models in social psychology (Kuppens, Oravecz, & Tuerlinckx, 2010) support the need to apply these models to understand human behavior.

We present a general framework to model the emergence of collective emotions based on the emotional expressions of individuals and their interactions. In our framework, individuals are represented by Brownian agents (Schweitzer, 2003), which allows the use of established methods from statistical physics to derive information about the collective dynamics of the agents. The emotional state of an agent is characterized by its valence, measuring the emotions' pleasantness or unpleasantness, and its arousal, for example, the level of activity associated with the emotion. This framework follows the dimensional theory of core affect (Russell, 1980), which represents the short-lived, intense features of emotional life. While more complex models and additional dimensions can be taken into account, core affect is closely linked to emotional expression, for example, written text (posts) in the case of online communication. Such posts are transmitted over the Internet to other agents who may read them and react to them in an emotional way. Modeling such kinds of emotional feedback between distant users via the exchange of emotional messages under different circumstances is one of the main purposes of the framework developed.

Our framework is specific enough to allow analytical results to predict simulation outcomes (Schweitzer & Garcia, 2010), but general enough to cover a wide range of online emotional interactions. The main feedback loops of this framework, as sketched in Fig. 26.1, are comprised of two orthogonal layers: an internal layer describing the agent (shown horizontally) and an external layer describing the communication process

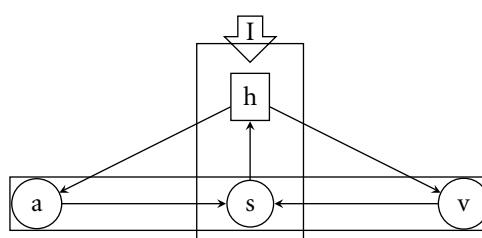


Fig. 26.1 Causation among the components of the general model. Reproduced from The European Physical Journal B—Condensed Matter and Complex Systems, 77(4), 2010, pp. 533–45, An agent-based model of collective emotions in online communities, F. Schweitzer. With kind permission from Springer Science and Business Media.

(shown vertically). In the internal layer, the arousal a and the valence v of an agent determine its emotional expression s , which reaches the external layer by contributing to the communication field h . The latter has its independent dynamics and can, in addition to contributions from other agents, also consider input from external sources, I . The causality loop is closed by considering that both valence and arousal of an agent are affected by the communication field.

Since we are interested in modeling the emotional dynamics of Internet communities, the general framework can be easily adjusted to consider the particularities of various online platforms such as user expression limitations, external influence on users, or communication in networks as opposed to broadcast. In this chapter, we will provide different examples of how to specify our modeling framework to cope with different online communities.

The concept of Brownian agents

Brownian agents are described by a set of k different state variables $u_i^{(k)}$, where the index $i = 1, \dots, N$ refers to each individual agent i . Each of these variables could be *external* if they can be observed in experimental data, or *internal* if they can only be indirectly concluded from the observable data. Each of these state variables can be time dependent due to interaction with the agent's environment, or due to internal dynamics that do not require external influence. In a general way, we can formalize the dynamics of each state variable u_i as a superposition of two influences of different nature:

$$\frac{du_i^{(k)}}{dt} = f_i^{(k)} + F_i^{\text{stoch}} \quad (1)$$

This formulation is based on the principle of causality, as the change of any variable u is produced by some causes which are listed on the right hand side of the equation. In the case of Brownian agents, these causes are assumed to be described by a superposition of deterministic and stochastic influences.

The stochastic term F_i^{stoch} models all the influences on the variables that are not observable on the time and length scale of the available data. This stochastic influence does not drive the dynamics of the agent state in any particular direction, and it is commonly, but not necessarily, modeled by white noise. Furthermore, the strength of the stochastic influences might be different among agents, depending on local parameters of the agents, as in Schweitzer (2003).

The deterministic term $f_i^{(k)}$ represents all the specified influences that change the corresponding state variable $u_i^{(k)}$. For example, non-linear interactions with other agents can be modeled by a function that depends on the state variables of any set of agents, which can also include agent i itself. $f_i^{(k)}$ can also describe the agent's response to the available information, which is the case for our modeling framework. It can depend on external conditions, such as the influence of mass media in online communities. Additionally, $f_i^{(k)}$ can reflect the *eigendynamics* of the agent, which are the changes in the variables $u_i^{(k)}$ not caused by any influence external to the agent. Examples of eigendynamics are saturation

or exhaustion, common in the modeling of human behavior (Lorenz, 2009). In order to design a multi-agent system, we have to define the agent's state variables, $u_i^{(k)}$, and the dynamics of their change, $f_i^{(k)}$, specifying the interaction among agents. These dynamics are defined at the level of the individual agent and not at the collective level, in a way that the macroscopic dynamics emerge from the interaction of a large amount of agents, just as collective emotions emerge in online communities.

Emotional states and their internal dynamics

Following the bidimensional representation of core affect (Russell, 1980), we quantify the emotional state of an agent through the variables of valence $v_i(t)$, and arousal $a_i(t)$. Different emotional states can be mapped to different points in this bidimensional space. For example, “happy” is an emotional state with high valence and arousal, while “satisfied” has positive valence but negative arousal. Other states like “depressed” have negative valence and arousal, and “angry” has positive arousal and negative valence. These two variables are known to capture most of the information of emotional experience (Russell, 1980), so we will define the state of the agent as $e_i(t) = \{v_i(t), a_i(t)\}$. Note that valence and arousal are internal variables. They can only be indirectly observed, for example, through physiological measurements or individual reports.

In the absence of any external excitation, any emotional state should relax to an equilibrium state. This assumption is supported by empirical studies that show how emotional states exponentially decay in a stochastic manner (Kuppens et al., 2010). This relaxation, $e_i(t) \rightarrow 0$, implies $v_i(t) \rightarrow 0$, $a_i(t) \rightarrow 0$. Thus, in accordance with Eq. (1) we define the dynamics of the Brownian agent as follows:

$$\begin{aligned}\dot{v}_i &= -\gamma_{vi} v_i(t) + F_v + A_{vi} \xi_v(t) \\ \dot{a}_i &= -\gamma_{ai} a_i(t) + F_a + A_{ai} \xi_a(t)\end{aligned}\quad (2)$$

The first terms on the right-hand side of the equations describe the exponential relaxation of valence and arousal toward the equilibrium state. The parameters γ_{vi} and γ_{ai} define the time scales of this relaxation, which can be different for valence and arousal and across agents. The second terms describe the deterministic influences as explained below, and the third terms model the stochastic influences. $\xi_v(t)$, $\xi_a(t)$ are random numbers drawn from a given distribution of white noise, for example, they have zero mean and no temporal correlations. The strengths of the stochastic components are quantified by A_{vi} and A_{ai} , which can also vary across agents.

The deterministic influences on the emotional state of the agent are described by the functions F_v , F_a . They depend on specific assumptions applicable to online collective emotions, in particular the agents' interaction, access to information, or their response to the media. They can also depend on the emotions of other agents, as for example, empathy (Preston & de Waal, 2002) would drive the emotional state of an agent toward the one perceived from others. In the following sections, we extend the description of the agent by defining the actions an agent can take, and by specifying the forms of these functions.

Emotional expression

When the deterministic and stochastic influences become negligible, Eq. (2) defines the stationary state $e_i(t) \rightarrow 0$. If the influences are large, for example, if information with emotional content becomes available to the agent, there should be excited emotional states. This excited state is not externally observable unless the agent decides to communicate, creating a message or posting a comment in a discussion. Consequently, our assumption for the expression of emotions is that the agent expresses its valence through the externally observable variable $s_i(t)$ if its arousal exceeds a certain individual threshold, T_i :

$$s_i(t + \Delta t) = \text{sign}(v_i(t)) \Theta[a_i(t) - T_i] \quad (3)$$

Where $\Theta[x]$ is the Heaviside's function which is one only if $x \geq 0$ and zero otherwise. If $\Theta[x] = 1$, we assume that the agent is not able to perfectly communicate its valence state, for example, the exact value of $v_i(t)$, and its expression is simplified to the sign of its valence, $r_i(t) = \text{sign}(v_i(t))$. Of course this is only an assumption, and we can easily change it to allow perfect valence communication. Thus, it is essential to assess its validity through the analysis of real data. This way the communication process receives a coarse-grained representation of the valence of individual agents, which can be adjusted to the accuracy of the data analysis techniques available.

An additional assumption is that the agent might not be able to immediately express its emotions if the arousal hits the threshold at a particular time t . This expression might be delayed for a certain time Δt , as the agent might not have immediate access to communication media. Empirical studies investigated these kind of waiting time distributions of human communication (Crane, Schweitzer, & Sornette, 2010; Garas, Garcia, Skowron, & Schweitzer, 2012; Rybski, Buldyrev, Havlin, Liljeros, & Makse, 2009), letting us assume $P(\Delta t) \propto \Delta t^{-\alpha}$, where α should be empirically determined.

Communication of emotions in online communities

After describing the dynamics of emotional states and emotional expression, we need to specify how this emotional expression is communicated to the other agents. In line with previous models of social interaction (Schweitzer & Holyst, 2000), we assume that every positive and negative expression is stored in a communication field $h_{\pm}(t)$ with a component for positive communication $h_+(t)$, and another component for negative information $h_-(t)$. This variable essentially stores the “amount” of available comments of a certain emotional content at a given moment in time. We propose the following equation for the dynamics of the field:

$$\dot{h}_{\pm} = -\gamma_{\pm} h_{\pm}(t) + c n_{\pm}(t) + I_{\pm}(t) \quad (4)$$

where each agent contribution $s_i(t)$ increases the corresponding field component by a fixed amount c at the exact time the expression occurred. This parameter c represents

the impact of the information created by the agent to the information field, defining a time scale.

The variable $n_{\pm}(t)$ shows the total number of agents contributing positive or negative emotional expression at time t . These expressions are in general time dependent, for example, they lose importance as they become older, usually due to the creation of new information in the community. This is represented by the exponential decay present in the first term of the right-hand side of Eq. (4), which is parametrized through γ_{\pm} . In addition, externally produced positive or negative emotional content might change the communication field, as, for example, news can have a great impact in the overall emotional state of an online community. We model this mechanism through the agent-independent term $I_{\pm}(t)$, which can be modeled as a stochastic input, or used to analyze the reactions of the model to external stimuli.

To finish the description of our framework, we need to specify how the available information influences the state of the individual agents, which is covered by the functions F_v and F_a .

Feedback of communication into emotional states

The aim of our model is to reproduce the emergence of a collective emotion, assuming that it cannot be understood as a simple superposition of individual emotional states. Our assumption is that the emotional expression of an agent may change the emotional state of a number of other agents, either directly or indirectly. For this influence we can only use hypotheses and test them in computer simulations in order to investigate various possible scenarios. Additionally, these can also be empirically tested when individual users are exposed to emotional content in experiments (Kappas, Tsankova, Theunis, & Kuester, 2011).

In the communication field of our model, there are two components for positive, $h_+(t)$, and negative, $h_-(t)$, emotional information. Depending on the state of an agent, it might be affected by these different kinds of information in different ways. For example, if we assume that agents with negative (positive) valence mostly respond to negative (positive) emotional information, we can specify:

$$F_v \propto \frac{r_i}{2} \left\{ (1+r_i) f[h_+(t)] - (1-r_i) f[h_-(t)] \right\} \quad (5)$$

where $r_i(t) = \text{sign}(v_i(t))$ and $f[h_{\pm}(t)]$ are functions depending either on h_+ or on h_- only. An alternative scenario would be that agents pay attention to the prevalence of positive or negative emotional content independently of their valence. In that case, we may assume:

$$F_v \propto g[h_+(t) - h_-(t)] \quad (6)$$

where g is a function of the difference between the two components of the information field. Other combinations might be tested as well.

A general assumption for Eq. (5) is that valence increases with the respective information perceived by the agent. The strength of this influence should depend on the emotional state of the agent, often in a non-linear manner. For example, if an agent is happy (sad), it may become happier (more sad) if receiving information about happy (sad) agents or events. A general formulation for this kind of dynamics has the form:

$$F_v [h_{\pm}(t), v_i(t)] = h_{\pm}(t) \sum_{k=0}^n b_k v^k(t) \quad (7)$$

where the key assumption is that the coefficients b_k are the same for any value of the valence.

Dynamics of arousal

As already explained, the arousal measures the degree in which the emotion encourages or discourages activity. It becomes important when it reaches a threshold T_p , which is assumed to be the precondition for emotional expression (Rime, 2009). Emotional expression should have some impact on the arousal, and we assume that the arousal is lowered after producing a message, or set back to the ground state in the most simple case. This means that the dynamics of arousal should be divided into two parts: one applying before the arousal reaches the threshold, and one at the exact moment when it is reached. Hence, we define the dynamics of the arousal $a_i(t)$ as:

$$\dot{a}_i = \dot{\bar{a}}_i(t) \Theta[T_i - a_i(t)] - a_i(t) \Theta[a_i(t) - T_i] \quad (8)$$

As long as $x = T_i - a_i(t) > 1$, and the arousal dynamics are defined by $\dot{\bar{a}}_i(t)$ as in Eq. (2). Once the threshold is reached, $x \leq 0$, $\Theta[x] = 0$ and $\Theta[-x] = 1$, deterministically resetting the arousal back to zero.

To conclude the dynamics of arousal, we must specify the function F_a , which applies when the arousal is below the threshold. The arousal was designed to be an orthogonal variable to valence, measuring the activity level of an emotion. It is reasonable to assume that agents respond to all the emotional content available in the community, for example, the sum of both field components, in a way that depends on their own arousal in a non-linear manner, regardless of the valence dimension. Following the same general point of view as for the case of valence, we propose the following non-linear dependence:

$$F_a \propto [h_+(t) + h_-(t)] \sum_{k=0}^n d_k a^k(t) \quad (9)$$

Alternatively, we may argue that agents pay attention to the information only as long as their arousal is positive because negative arousals are associated with states of inactivity

(tired, sleepy, depressed, bored). In this case, it is reasonable to assume, for example, that the impact of information increases linearly with the activity level:

$$F_a \propto [h_+(t) + h_-(t)] a(t) \Theta[a(t)] \quad (10)$$

This description defines a complete framework to design agent-based models of collective emotions in online communities. Simulation and statistical analysis of the properties of these models can explain the reasons for the emergence of collective emotional states from the online interaction of large amounts of users. In the following sections we present two instances of applications of our framework to emotional interaction in product reviews communities and chat room discussions.

A model for emotional product reviews

As an application of our modeling framework we study the emotional interaction in product review communities. Product review communities provide their users with the means to overcome information barriers typically present in traditional media and marketing by gathering independent information generated by other users.

This process of information exchange is subject to emotional interaction, changing the impact of a review depending on subjective factors like opinions and emotions.

The influence of emotions in product reviews has been subject of previous research (Dellarocas & Narayan, 2006), but the analysis of reviews was done in an individual manner. Collective emotions regarding products are a fairly new point of view that is gaining importance in order to predict and to optimize product acceptance. Datasets on user-generated product reviews provide a valuable resource to study how certain products become famous, or “beloved” by means of the Internet. In this section, we present our agent-based model which is able to reproduce two properties of emotions in product reviews: the time response of the community to the release of the product, and the typical distribution of emotional expression through the review text. We compare simulations of our model with a large dataset from [Amazon.com](#), with emotional information extracted by sentiment detection tools.

Modeling emotional interaction through product reviews

The structure of this model is the same as explained in Fig. 26.1, where the emotional state of the agents is composed of valence and arousal and is influenced by a collective information field using specific assumptions about this kind of communication (Garcia & Schweitzer, 2011). In our model, we focus on the discussion at the product level, ignoring relations between products. This means that the communication between agents always refers to the reviewed product. It is a particular property of a product that every user is allowed to review it only once. We introduce this constraint in the arousal dynamics. Specifically, after an agent’s arousal reaches its threshold T_p , the threshold is reset to a value of ∞ , preventing the agent from making a second review on the same product. We

assume that the initial values of these thresholds are heterogeneous among agents, sampled from a normal distribution with mean μ and standard deviation σ .

For this application, we assume that the arousal dynamics depends on the sum of both components of the field (h_+ and h_-), as formalized in Eq. (9). For this case, the polynomial function of Eq. (9) goes up to degree 2, modeling a quadratic dependence on the agent's own arousal. Our simulation results (Schweitzer & Garcia, 2010) show that this form of arousal dynamics is able to produce spontaneous emergence and disappearance of collective emotional states. For the valence dynamics, we assume that the influence of the information field in the agent's valence F_v depends on the previous value of the agent's valence. This means that previous negative experiences of the product lead to a tendency to pay less attention to the positive expression of other agents. On the other hand, agents with positive experiences will be more influenced by positive emotional information than by negative information. We can formalize this asymmetry of agent perception through an exponential function with a cubic decay, as explained in Garcia and Schweitzer (2011).

Writing reviews is heavily influenced by preferences of the users and their relation to the properties of the product. In our model, user preferences are included as an agent internal variable u_i constant in time. The heterogeneity on these preferences is captured by sampling u_i from a uniform distribution in the interval $[0, 1]$. This way we do not assume any kind of general preference toward a particular value, as preferences simply determine what is subjectively preferred and not what is better or worse. Product properties are represented in the same scale as user preferences, as described by a parameter $q \in [0, 1]$.

It is a common assumption in product review communities that a reviewer has previously purchased or experienced the reviewed product. In our model, this experience determines the initial value of the valence as the difference between the agent's preference u_i and the product property q . If a product is at perfect match with a user's preference $|u_i - q| = 0$ (Walter, Battiston, & Schweitzer, 2007), the agent starts with a maximum initial valence ($v_i(0) = 1$). If the product happens to be the complete opposite to the agent's expectations, the value of the difference between both would be maximum and the agent's valence ($v_i(0) = -1$).

According to our framework, the value of an agent's expression s_i is determined by its valence v_i . We assume that agent expressions influence the field more the more emotional they are. As product reviews are fairly long texts compared to other kinds of online communication, sentiment analysis techniques are able to provide values for different degrees of emotionality. A review might contain only factual information and not influence the emotions of a reader, but it could also contain mild or extreme emotional content. The value of an agent's expression s_i ranges from -5 to 5 , proportional to the value of its valence when creating the review.

Comparison of simulations with reviews data

Our model for emotions in product reviews aims at reproducing collective properties of emotional expression toward products. Our dataset contains more than 1.7 million reviews from [Amazon.com](#) for more than 16,000 products. Each review has been processed

with SentiStrength (Thelwall & Kappas, Chapter 25, this volume; Thelwall et al., 2010), a sentiment analysis tool that gives values of positive and negative emotions in a text in a scale from 1 to 5. Statistical analysis of this dataset (Garcia & Schweitzer, 2011) showed the existence of two patterns of the reaction of the community to the release of a product. Furthermore, emotional expression regarding products followed distributions of a characteristic shape, which our model should reproduce.

Given a particular set of values for the parameters of our model, the initial value of the communication field determines the type of collective dynamics of a simulation. This way the model is able to reproduce the different scenarios we found in the real data, which correspond to reviews resulting from mass media versus word-of-mouth influence. The first row of Fig. 26.2 shows the time series of emotional expression in two model simulations. The second row shows two example time series for two products of our [Amazon.com](#) dataset. The left column shows the case when there is a strong input to the field at the beginning of the simulation. This initial impulse, simulating marketing campaigns, forces the dynamics of the community into a vastly decaying single spike. An example of this kind of scenarios in real products is *Harry Potter and the Deathly Hallows*, which was subject to a large amount of media attention around its release due to the fact that it is part of series of already successful books.

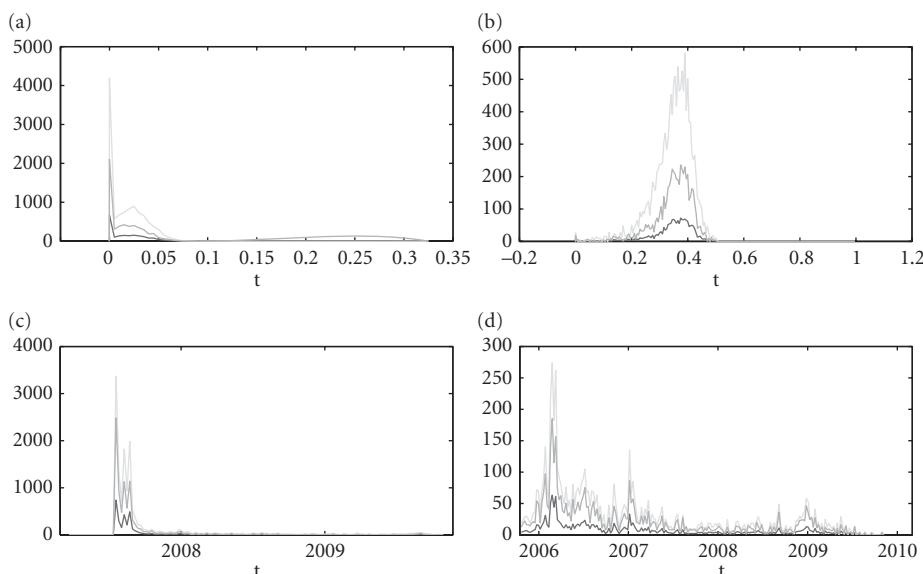


Fig. 26.2 Amount of ratings (black), total positive expression (light gray) and total negative expression (dark gray) for the simulated time. Rate of reviews and emotions for a strong media impulse (a) and when the emotions spread through the community (b). Weekly statistics for *Harry Potter and the Deathly Hallows* (c) and *Marley and Me* (d). © 2011 IEEE. Reprinted, with permission, from IEEE Proceedings, Emotions in Product Reviews—Empirics and Models, Garcia, D., & Schweitzer, F., pp. 483–488. See also Plate 1.

The right column of Fig. 26.2 shows the alternative case of a slower increase of the activity in the community. The simulated time series shows that, in the absence of initial information, the model can build up endogenous cascades of reviews. This kind of dynamics requires a variance of the threshold distribution large enough to trigger some agents that lead the activity in early stages of the simulation. This behavior of our model can be compared with the real example of the book *Marley and Me*, as shown in the bottom right panel. Compared to other books, *Marley and Me* was not subject of an important marketing campaign, and the increase in review activity was due to word of mouth effects among readers. This slower growth also leads to a slower decay compared to the left column of Fig. 26.2, which is also present in our simulations. These results are similar in a qualitative sense, but many questions are still open for future analysis of the dynamics of the model. For example, the model might be able to reproduce different forms of the growth and decay of reviewing behavior, which in turn might be more similar to the ones showed for *Marley and Me*.

The valence dynamics of this model were designed to reproduce different patterns of positive and negative emotional expression in product reviews. The dark gray bars in Fig. 26.3 show a typical histogram of emotional expression in our [Amazon.com](#) dataset. In general, the distribution of negative emotions is more uniformly distributed than the expression of positive emotions, which usually have a large bias toward the maximum value. The light gray bars in Fig. 26.3 show the histogram of emotional expression from our simulations. The similarity between both histograms shows how we are able

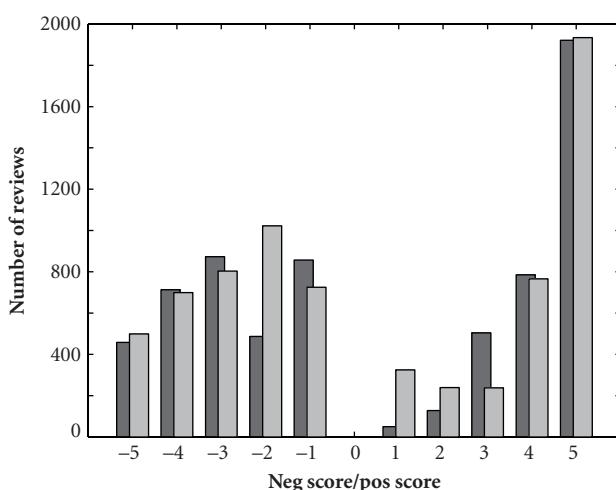


Fig. 26.3 Comparison between the emotional distribution of the reviews for “Harry Potter” (dark gray) and the simulation results (light gray). © 2011 IEEE. Reprinted, with permission, from IEEE Proceedings, Emotions in Product Reviews—Empirics and Models, Garcia, D., & Schweitzer, F., pp. 483–488. See also Plate 2.

to reproduce the distribution of emotional expression in product reviews, given certain parameter values.

To conclude, Fig. 26.3 shows that the outcome of our model has macroscopic properties similar to real world data on product reviews. Our model provides a phenomenological explanation based on psychological principles, linking the microscopic interaction between agents with the macroscopic behavior we observed in our [Amazon.com](#) dataset. In particular, the different time responses and emotion distributions of the community have the same qualitative properties in model simulations and real data. Within our framework, further explorations of the relation between model and data are possible. For example, each product can be mapped to a set of parameter values that reproduce the collective properties of the community reaction. This would provide a measure of the impact of product properties and marketing in the psychometric space of the customers.

A model for emotions in chat rooms

The second application of our modeling framework aims to provide insights on the nature of human communication in real-time online discussions, for example, chat rooms. Online communication like that in chat rooms has recently received much attention from the scientific community (Garas et al., 2012; Rybski et al., 2009). As a result, many statistical regularities of our communication patterns are revealed, such as the power-law nature of the waiting time distribution $P(\tau)$, where τ is the elapsed time between two consecutive actions of the same user. Such regularities should be, and are, considered in the design of our model. For example, instead of being driven by the arousal dynamics the level of activity is sampled from the real inter-activity time distribution $P(\tau)$: $\sim \tau^{-1.54}$, as reported by Garas and colleagues (2012).

Using our framework, the valence dynamics should follow Eq. (2) and is composed by a superposition of stochastic and deterministic influences:

$$\dot{v}_i = -\gamma_v v_i + b(h_+ - h_-)v + A_v \xi_i \quad (11)$$

The exponential decay of the valence is determined by γ_v and the influence of the information fields is modeled through $b(h_+ - h_-)v$. The parameter b quantifies the valence change per time unit due to the discussion of emotional content, which depends on the balance between positive, h_+ , and negative, h_- , components of the field. This differs from the previous assumption of Eq. (5) used for the modeling of product review communities, but is more appropriate to capture communication in chat rooms. Chat discussions are usually very fast real-time interactions that display a limited amount of messages to the users, unlike fora in which large amounts of messages can be accessed at any time. In this model, we aim to reproduce plausible chat room interactions, in which users are just able to read a smaller amount of messages created in a short time.

As mentioned before, agents create messages with time intervals sampled from the empirical inter-event distribution. When posting a message, the variable s_i of the agent is set to a value that depends on its valence v_i . As chat messages are usually very short, we cannot assume the existence of very rich emotional content like in the case of product reviews, but just some emotional orientation as positive, negative, or neutral messages. We formalize the expression of valence polarity as:

$$s_i = \begin{cases} -1 & \text{if } v_i < V_- \\ +1 & \text{if } v_i > V_+ \\ 0 & \text{otherwise} \end{cases} \quad (12)$$

where the thresholds V_- and V_+ represent the limit values that determine the emotional content of the agent's expression. These thresholds do not need to be symmetric around zero because, as we discuss in the "Measuring the baseline of emotional expression" section, human expression is systematically positively biased (Garcia et al., 2012). If humans communicate in the presence of social norms that encourage positive expression, thresholds should satisfy $|V_+| < |V_-|$.

In this application of our framework, the communication field is formulated exactly as in Eq. (4), for example, it increases by a fixed amount c when an agent expresses its emotions. By analyzing the parameter space of the model, we are able to identify parameter values that reproduce observable patterns of real human communication. Garas and colleagues (2012) have shown that there is a striking emotional persistence in online human communication. This emotional persistence can be reproduced by simulated conversations between agents chatting. It is interesting to note that we only assumed that the inter-activity time τ of agents follows a power-law distribution, to obtain an inter-event distribution for the time lapse between consecutive messages that has the same form as obtained from the real data, but with faster dynamics on a short time range.

Measuring the baseline of emotional expression

The assumptions of our modeling framework are formulated such that they are empirically testable. In this section, we present our results of the empirical analysis of emotional words, which support the assumption of asymmetric thresholds of emotional expression in our chat room model, as discussed in the previous section. This modeling assumption corresponds to the previously formulated Pollyanna hypothesis (Boucher & Osgood, 1969), which asserts that there is a bias toward the use of positive words.

We have tested this hypothesis in the case of online textual communication. Specifically, we analyzed the patterns of online usage of words contained in three established lexica. These lexica contain estimations of the *valence* contents of emotional words in three of the most used languages on the Internet, namely English (Bradley & Lang, 1999), German (Vo, Conrad, Kuchinke, Urton, & Hofmann, 2009), and Spanish (Redondo, Fraga, Padron, & Comesana, 2007). We estimate the word frequency using Google's *N*-gram dataset (Brants

& Franz, 2009), one of the largest datasets available on Internet word usage. Combining these two datasets, we are able to verify the existence of a positive bias in online written expression.

For the three lexica, the valence distributions have mean values very close to zero, as shown in the upper panel of Fig. 26.4. The picture is different when these distributions are rescaled by the frequency of appearance of each word in the Internet. The mean valence of a word chosen at random from online text is considerably larger than zero for all three languages. This has a particular importance for quantitative analysis of the emotions in written text, as the “emotional reference point” is not at zero, but at considerably higher valence values (about 0.3).

The existence of this bias in emotional expression influences the communication process between individuals. For example, the information content of a word is closely related to its frequency of usage. While we are unable to estimate information content perfectly, the

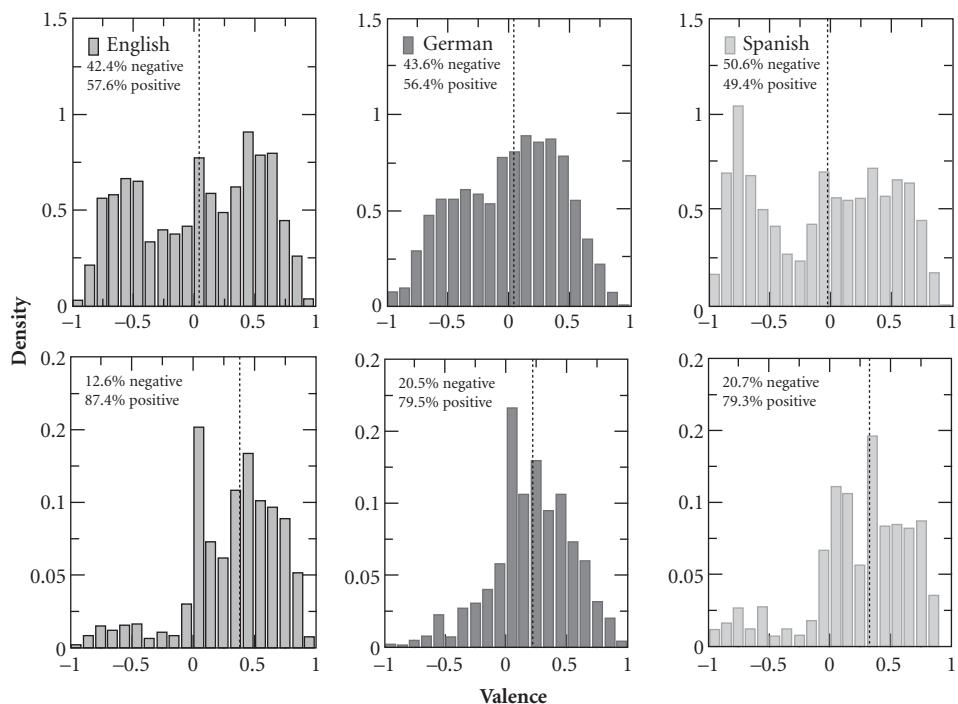


Fig. 26.4 (Upper panel) Distributions of reported valence values for words in English (left panel), German (middle panel), and Spanish (right), normalized by the size of the lexica. (Lower panel) Normalized distributions of reported valence values weighted by the frequency of word usage, obtained from the same lexica. Average valence (median) 0.314 (0.375) for English, 0.200 (0.216) for German, and 0.238 (0.325) for Spanish. The dashed lines indicate the median. Inset numbers: ratio of positive and negative areas in the corresponding distributions. Reproduced from EPJ Data Science, 1(1), 2012, pp. 3, Positive words carry less information than negative words, David Garcia. With kind permission from Springer Science and Business Media. See also Plate 3.

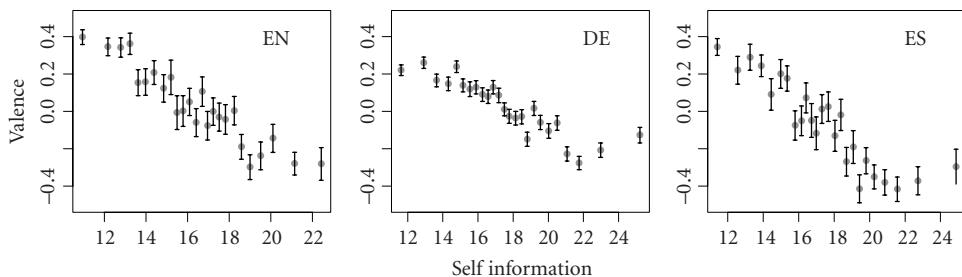


Fig. 26.5 Relation between self-information and valence. Average valence is shown for bins that contain 5% of the data, with error bars showing the standard error. For all the three languages, valence clearly decreases with the self-information of the word, i.e., positive words carry less information than negative words. Reproduced from EPJ Data Science, 1(1), 2012, pp. 3, Positive words carry less information than negative words, David Garcia. With kind permission from Springer Science and Business Media. See also Plate 4.

frequencies of individual words and word sequences let us provide valid empirical estimations. Thus, we estimated the information content through self-information (Garcia et al., 2012), which is defined as $I(w) = -\log P(w)$. Looking at the relation between word valence and information content, we found a consistent pattern in all three languages: the information content of a word decreases with the valence it expresses. Fig. 26.5 shows the clear negative trend in information content, which is supported by correlation measures (correlation coefficients between -0.3 and -0.4). Our analysis extends information measures taking into account the co-occurrence of words up to distance 4, finding similar results.

These results are consistent with previous studies in social psychology, which support that the expression of positive emotions encourages communication and strengthens social bonds (Rimé, 2009). This provides an evolutionary advantage to communities where communication shows a positive bias, as it increases prosocial behavior and collaboration.

Social sharing of emotional content

In our modeling framework, online communication is affected by an information field h that is modified by agents' emotional expression. A message created by an agent might trigger new messages from other agents, depending on the emotional content of the message and the emotional states of the involved agents. We tested this kind of feedback with data from the online microblogging site Twitter, where users create and share short messages called *tweets*. In particular, we tested the influence of emotional content in the social sharing of tweets, by combining sentiment analysis with data on *retweets*, for example, redistributed messages which were previously created by other users.

We analyzed a large dataset composed of more than 30 million tweets processed with SentiStrength in a similar fashion as the product reviews in the previous section (Pfitzner, Garas, & Schweitzer, 2012). Due to the very short nature of tweets, we combined the output of the sentiment classification to generate two values: emotional polarity from the

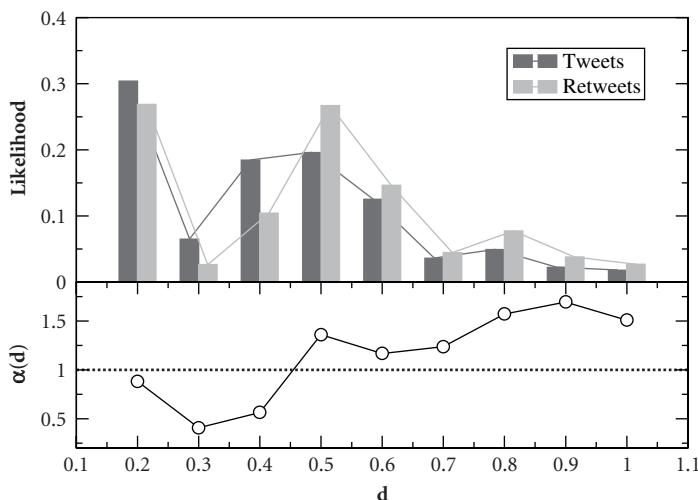


Fig. 26.6 Emotional divergence of tweets and retweets. (Top) Likelihood of tweets and retweets to have emotional divergence (d). (Bottom) Likelihood ratio. See also Plate 5. Adapted from Pfitzner, R., Garas, A., & Schweitzer, F., Emotional Divergence Influences Information Spreading in Twitter, Proceedings of the Sixth International AAAI Conference on Weblogs and Social Media, p. 545, figure 2, Copyright (c) 2012, Association for the Advancement of Artificial Intelligence (www.aaai.org), with permission.

comparison of positive and negative content, and emotional divergence d , or strength of the overall emotions expressed through the tweet. We calculate the divergence of a tweet as $d = (p - n)/10$, where p and n are the positive and negative values given by SentiStrength.

Our statistical analysis revealed that most of the emotional tweets are positive, in line with the positive bias discussed in the “Measuring the baseline of emotional expression” section. In addition, the ratios of positive, negative and neutral content are very similar for tweets and retweets. This result suggests that, for the case of Twitter, there is not a clear unbalance in social sharing according to the sign of the valence expressed through a message. However, when looking into the values of divergence between tweets and retweets, the pattern is different. Retweets consistently contain stronger emotional content, although it is not biased toward positive or negative. In particular, the ratio between retweet and tweet likelihoods α increases significantly when emotional divergence is above 0.5, as shown in Fig. 26.6. As an illustrative example, our estimations show that a tweet with $d = 0.9$ has a 14% chance of being shared, whereas a tweet with $d = 0.3$ only 3%.

The interpretation of these results is consistent with the concept that *emotions elicit social sharing* (Rime, 2009), showing that humans tend to share more experiences in which stronger emotions are involved. This analysis provides useful insights that should be taken into account for future models of emotional spread in social networking sites, as a message with strong emotional content is substantially more likely to spread in a community like Twitter.

Conclusion

To summarize, our modeling framework provides the means to understand and predict the emergence of collective emotional states, based on the interaction between individual agents. Its analytical tractability allows us to find conditions in which these states appear and disappear, leading us to the formulation of testable hypothesis of emotion dynamics. We tested some of these hypotheses against datasets of online origin, lending support to the existence of asymmetries in emotional expression. Instances of our models have been proven successful in reproducing collective behavior in product review communities and chat rooms, but our framework has also been used to define an agent-based model for emotional behavior in social networking sites (Šuvakov, Garcia, Schweitzer, & Tadić, 2012), and in virtual human platforms where three-dimensional avatars show facial emotional expression (Ahn, Gobron, Garcia, Silvestre, & Thalmann, 2012). Future applications aim at applying our framework to other types of online communication, such as forum discussions, open source communities, and dialog systems (Rank, Skowron & Garcia, 2013).

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Chapter 27

Interacting with collective emotions in e-communities

Marcin Skowron and Stefan Rank

Austrian Research Institute for Artificial Intelligence (OFAI)

Interaction mediated through the Internet is changing the ways in which people connect, communicate, and share information and emotions. At the same time, this enables studies of these processes hitherto impossible by acquiring large, content-rich, highly interconnected data that enable both quantitative and qualitative analyses on an unprecedented scale. The ongoing evolution of Internet services and of the ways in which we use them in daily life influence not only our interaction patterns but also our susceptibility to the communicated content, including our emotional responses.

Our online presence, rather than being a mode conceptually distinct from “offline,” becomes progressively more interactive and real-time with prompt feedback received from peers in the network. The extended online interactivity and its growing importance and effect on various aspects of users’ lives also affect the channels in which emotions are perceived and expressed. Social networks form increasingly important underlying structures for accessing, filtering, sharing, and forming opinions; influencing the ways in which emotional responses to various events, entities, and processes are generated and expressed. Specifically, they can affect the selection of topics of interests and the propagation of emotions between individual peers and clusters of users.

In this chapter, we cover how *interactive affective systems* (IAS) can be used to study the genesis and the influence of collective emotions in online communication, progressing from one-on-one scenarios to those entailing modeling of more complex, multi-agent communication processes. We start by motivating example application scenarios for IAS. The described approach is supplementary to automatic sentiment classification and data mining of users’ posts in online social media (see Thelwall & Kappas, Chapter 25, this volume). The introduction of affective dialog systems as interactive tools enables extending the scope of analysis both qualitatively, for example, by engaging users in follow-up dialogs, and quantitatively, for instance, by reaching the usually silent majority, i.e., users who normally refrain from voicing their opinion in asynchronous online channels. This chapter also gives an overview of components for implementing computational awareness of collective emotions, i.e., useful methods for affect detection and user modeling in the context of affective dialog management. Further, we describe relevant experiments for our interactive affective systems and corresponding results. We conclude by discussing

the relation between the acquired insights and a general framework for modeling the role of collective emotions in communication channels mediated by information and communication technologies.

Application scenarios for interactive affective systems

The aim of interactive affective systems is to model the affective dimensions of multi-party interactions, to simulate potential future changes in group dynamics, and, in part based on that information, to suitably respond to utterances both on the content and the affect level. Any such application of interactive systems for supporting cooperation in e-communities should aim to accommodate mechanisms of cooperation: direct reciprocity, indirect reciprocity, graph selection (clusters of cooperators do well), group selection (groups of cooperators out-compete other groups), and kin selection (Nowak, 2006). For groups, an IAS can track both content and affective dimensions of the communication between multiple users. This information can be used to provide the group with information on social aspects and effects of emotions, as well as on the roles of different users (nodes) and their influence on the group, and their typical communication patterns. Two exemplary application scenarios of IAS are the *affective interaction analyzer* (AIA) and the *affective supporter and content contributor* (ASCC).

The AIA focuses on the analysis of interaction patterns, a potential default setting for multi-user environments. It is concerned with the affective content of the exchanged textual messages and the tracking of group-level characteristics and is inactive in terms of interactions with casual users. The system is limited to infrequent messages provided to selected users, such as channel operators in the case of, for example, Internet relay chat channels, either on demand or based on a set interval or threshold set for the observed affective and interactive states of a group.

The ASCC to a moderate extent participates in ongoing discussions by providing new content related to the discussed topic (e.g., a link to a relevant website) or the results of analyses and real-time simulations of affective group dynamics. The system communicates with the entire group in regular intervals and identifies relevant content based on the analysis of the group's activities and affective states toward various topics of discussion and their changes over time. In the following, we outline relevant research about collective emotions and their role in e-communities related to the construction of systems that target these scenarios.

A systems perspective on collective emotions

Humans interact with human peers using the infrastructure of the Internet. At the same time, the introduction and growing role of artificial systems and assistance technologies that carry out progressively more complex tasks for their users further blurs the separation of human and artificial agents. Artificial systems assist us in accessing and filtering information, in searching for and using products or services, in navigating the real and the virtual world, or by recommending restaurants, songs, and movies. Last but not least,

intelligent artificial agents (Russell & Norvig, 2003) populate virtual worlds, interactive environments, and online games as our allies, opponents, hosts, or characters that are simply a part of an interactive story (Ortony, 2003; Rank, 2005; Rank et al., in press). Online interactions, both with humans as well as with artificial systems and services, have become an essential part of our online experience with effects extending beyond the virtual realm in particular affecting also our emotions as individuals and as parts of larger groups. The center-piece of the approach toward studying and influencing collective emotions proposed in this chapter therefore is an IAS that focuses on the affective aspects of interaction and their modeling in online communication networks (Skowron, 2010; Skowron & Rank, 2012).

In the field of social psychology, collective emotions have been defined as emotions that are shared by a large number of individuals in a certain group (Stephan & Stephan, 2000; see also, for example, Hatfield, Carpenter, & Rapson, Chapter 8, this volume; Páez & Rimé, Chapter 14, this volume). These emotions, experienced by individuals as reactions to societal and collective experiences, are shared between members of a group for a number of different reasons and are not limited to emotions felt by individuals as a result of their membership in a certain group (group-based emotions) (see Ray, Smith, & Mackie, Chapter 16, this volume).

For the purpose of designing interactive systems, we define *collective emotions in online communities (e-communities)* as affective-cognitive communication processes mediated by information and communication technologies with the following characteristics from the perspective of the individual user: *similar emotions* are shared with a large number of individuals belonging to a particular group, regardless of their physical location, accompanied with the *awareness of sharing* these emotions with that group. The Internet extends the potential of sharing (previously afforded by traditional media such as newspapers and TV) to a larger scale, potentially reaching and affecting selected users all over the world.

The mechanisms of collective emotions relate to a natural affinity of people toward similarity, including emotional similarity, in relationships and communities. For example, similarity in attitudes and intelligence promotes attraction between strangers (Berscheid & Walster, 1983; Fehr, 1996) and similarity in relationship partners leads to greater cohesion and relationship stability (Acitelli, Kenny, & Weiner, 2001; Burleson, 1992). On the Internet, the mechanisms of collective emotions affect communication intensity (Chmiel, Sienkiewicz, Thelwall, et al., 2011; Pfizner, Garas, & Schweitzer, 2012), ties between members of e-communities (Mitrović & Tadić, 2009; Garas, Garcia, Skowron, & Schweitzer, 2012; Gligorijevic, Skowron, & Tadić, 2013), and the sharing of emotions, both positive and negative (Chmiel, Sienkiewicz, Paltoglou, et al., 2011; Mitrović & Tadić, 2011).

In recent years, collective emotions on the Internet became an important component for: (1) real-world revolutions and changes in online and offline communities (Landsdall-Welfare et al., 2012; Marzouki et al., 2012), (2) successful business models and marketing campaigns, and (3) an increased connectedness between users and their various e-communities (Chmiel, Sienkiewicz, Thelwall, et al., 2011; Garas et al., 2012). Online services and popular computer applications invariably influence the formation and evolution

of collective emotions. We are, however, still at an early stage of development regarding online applications in which the notion of sharing of emotions is accounted for. The required understanding of these mechanisms, including the perception of consequences of actions both of human and artificial agents, is still very much an open research subject.

Several aspects of the role of emotions and collective emotions in offline communities have been identified, such as an increased potential for responding to opportunities or threats (Kemper, 1991; Preston & Waal, 2002), the benefit of emotional similarity for perceiving other's intentions and motivations (Hatfield, Cacioppo, & Rapson, 1994; Levenson & Ruef, 1994), and validating one's feelings and appraisals (Locke & Horowitz, 1990; Rosenblatt & Greenberg, 1991).

The implementation of an awareness of the affective dimension in online interactions has significant benefits for the development of artificial systems. An understanding of the fundamental aspects of human emotions, caring about specific states of the world, and the subjective assessment of the relevance of any changes in that regard (Ellsworth & Scherer, 2003; Frijda, 2007; Petta, 2003), is a step toward achieving beneficial human qualities such as cooperation, empathy, fairness, or reciprocity that rely on the concern of the well-being of others in artificial systems (Marsella, Gratch, & Petta, 2010). Further, the use of artificial systems opens up a new interactive approach to study collective emotions: *in situ* when collective emotions arise and with the opportunity to interact directly with individuals.

An interactive approach to collective emotions

The study of collective emotions in online communication is now an active interest of policymakers, business professionals, and multidisciplinary research teams. Recent studies are primarily focused on the post hoc analysis and modeling of relations between orientation and intensity of valence exchanged in textual messages and the interaction patterns in e-communities (Chmiel, Sienkiewicz, Thelwall, et al., 2011; Garas et al., 2012; Hillmann & Trier, 2012; Mitrović & Tadić, 2011; Thelwall, Buckley, & Paltoglou, 2012; also see Thelwall & Kappas, Chapter 25, this volume) as well as physiological responses related to the perception and generation of emotionally charged online content (Kappas, Kuester, Theunis, & Tsankova, 2010a; Kappas, Tsankova, Theunis, & Kuester, 2010; Kuester & Kappas, in press).

The method proposed here, i.e., the interactive study of e-communities, complements these lines of work by employing interactive affective systems to provide experimental setups for studying the impact of several affective and social factors in online communication with Internet users. It follows the vision of applying networked computers and the Internet in particular for the exploration of emotion, self, and sociability (Turkle, 1984), and extends this notion by providing the specific experimental setups, carefully designed based on the application scenarios described earlier. These scenarios may:

- ◆ Contribute to and support studies on how interactions with artificial and human agents influence us, in particular in online, virtual settings.

- ◆ Gather supplementary data on specified topics, elicited during a defined time-frame, and from selected groups (thus enabling the acquisition of relevant background information about participants for patterns identified by quantitative analyses that are not available in post-hoc analysis).
- ◆ Help evaluating theoretical models based on quantitative analyses of large datasets by experimentally reproducing the hypothesized effects online.

The interactive approach for studying collective emotions enables direct querying of users to discover a range of variables that are likely to influence affective perception (Skowron, Rank, Theunis, & Sienkiewicz, 2011). Further, the method enables us to extend the scope of analysis by acquiring feedback on the motivation for the stances of particular users (Skowron, Theunis, Rank, & Borowiec, 2011) and acquiring this feedback at different points in time, giving a new perspective on the associated temporal dynamics of emotions.

Components for computational awareness of emotion in interactive systems

A prerequisite for IAS that influences and help studying collective states is the existence of mechanisms capable of assessing the impact of collective emotions on online and offline processes. This section considers the top-level requirements for this computational awareness in IAS along with an overview of the theoretical background and relevant research for the necessary components. The proposed realization of computational awareness of collective emotions in IAS is based on methods to automatically detect and categorize emotional expressions using affective dimensions to model the dynamics of emotion exchanges in e-communities, and to interact with users directly, including the generation of affective responses. In the following, we distinguish two (overlapping) layers of competencies for IAS:

- ◆ Direct interactions, i.e., the analysis of dialog in one-on-one and multi-users settings. Here, analyses are focused on the perception of the affective dimensions of dialog and on the identification of related aspects such as timing, style, novelty, and the coherence of contributions. In the more complex application scenario (i.e., the ASCC), corresponding aspects need to be accounted for in the selection of relevant content that the system can contribute.
- ◆ Social/network interactions, i.e., the perception, modeling, and simulation of interactive and affective dynamics in online groups. This includes accounting for the network structure and the roles of individual users and, for the ASCC scenario, the ability to select peers for interaction.

The scenarios for IAS presented and the remainder of this chapter center around text-based communication, but the generic modeling framework of such systems can also account for information communicated in other modalities given effective affect-classification tools. In the following, we provide an overview of system components relevant for the scenarios outlined above, organized along the two layers of competencies.

Direct interactions

Direct interactions between peers in the e-communities under consideration are the medium of the transfer of emotion between agents, both human and artificial. Consequently, the analysis of such interactions forms the basis for the perceptive and interactive capacities of IAS. The scope of direct interactions varies from simple acknowledgment of the reception of a message, over “liking” or “re-tweeting” of content, to active involvement in highly emotional debates. In the latter case, the exchange of utterances and the contribution of extensive posts and relevant material are often characterized by vigorous repetition. The emotional involvement of users varies depending on their personal affective profile, the subjective importance assigned to the discussed content, and the individual receptiveness to the social context of an interaction, i.e., the status in a group, the relations with other peers, or the presence of known peers. Studies on the physiological responses of users during the perception and generation of emotionally charged online content, as well as during related dyadic interactions (Kappas, Kuester, et al., 2010; Kappas, Tsankova, et al., 2010; Kuester & Kappas, *in press*), provide valuable insights that should aid the conceptualization and implementation of IAS and their main components as presented later in this chapter.

Modeling of conversational partners

An important part of the decision-making structures of IAS is the modeling of conversation partners. This component of the system is analogous to adaptive user modeling in standard human–computer interaction (HCI): the system initially has a default model of the interaction partner, adapts it over time, and complements missing information based on the knowledge derived from interaction events. In the case of multi-user environments, several users are modeled which in turn allows for abstracting from specific individuals into types of users. The eventual purpose is to decide on interaction choices, e.g., what content to post or utterance to select for a particular user, but it also informs timing and utterance modification to match a user’s style as detailed later, as well as the selection of interaction partner(s) in multi-user environments.

Modeling of self in one-on-one interactions

In a range of application scenarios, such as ASCC, a factor for the successful application of interactive systems is the ability to adjust one’s communication behavior according to the (detected) preferences of individuals toward various entities or fellow users. Ideally, the system should be able to foresee the outcomes of its own behavior, either following or intentionally violating established or evolving social norms, communication conventions, or the communicative style in a group. The modeling of self, including the affective reception of content provided, both in one-on-one and multi-user interactions, leads to the adjustment of threshold used for calculating these benefits and costs of potential actions.

Affect detection

The ability to detect the affective content of expressions is a prerequisite for modeling affective online interactions. For expressions that refer to non-textual content; such as images, audio, and video; or to content external to the e-community, affective analysis can be applied. Incorporating this information into an affective modeling framework is still a subject of ongoing research and, in the following, we focus on methods, tools, and resources used for affect detection based on the analysis of textual expressions. Calvo and D'Mello (2010) provide an extensive review of the affect detection methods across various modalities.

The *Linguistic Inquiry and Word Count* (LIWC) is a lexical database providing a classification of words along 64 linguistic, cognitive, and affective categories (Pennebaker, Francis, & Booth, 2001). The database provides categories for psychological processes, (e.g., affective ones such as positive and negative emotions; or cognitive ones such as insight and causation), as well as other word categories useful for a representation of text units and individual communication styles (e.g., linguistic categories such as adverbs, negations, swearing; personal concern categories such as home, work, leisure; or paralinguistic dimensions such as fillers and assents). In recent years, LIWC has been successfully applied and evaluated in various psychological and psycholinguistic studies that included the investigation of linguistic style and the relations between language use and speaker personality (Chung & Pennebaker, 2008).

The *Lexicon-Based Sentiment Classifier* primarily provides information on the sentiment class of words (negative, neutral, or positive) (Paltoglou, Gobron, Skowron, Thelwall, & Thalmann, 2010). Further, it assigns a positive sentiment value *and* a negative sentiment value to users' and systems' utterances. The initial scores for input words are derived from two different resources for emotional words, the LIWC (discussed earlier) and the "General Inquirer" dictionary (Stone, 1997), the former as enriched by Thelwall and colleagues (2010). Additionally, the applied algorithm adjusts scores based on the detection of linguistic features such as negation, capitalization, intensifiers, or diminishers.

The *Affective Norms for English Words* (ANEW) dictionary is based on a dimensional definition of emotion by Bradley and Lang (1999). It includes 1034 commonly used words, including verbs, nouns, and adjectives. Words are annotated in three affective dimensions, valence, arousal, and dominance on a scale from 1 (very unpleasant, low arousal, low dominance/control) to 9 (very pleasant, high arousal, high dominance/control).

Affect generation and affective dialog management

In some scenarios, like ASCC, an IAS actively communicates using natural language, entailing several challenges of natural language understanding and generation, dialog and discourse modeling, and affective dialog management, to name just a few. An extensive discussion on the methods used in these fields is beyond the scope of this chapter (see André, Dybkjær, Minker, and Heisterkampet, 2004, for an overview). However, we report here on experiments with an existing IAS which focus on the system's ability to generate

coherent and realistic dialogs, and an evaluation of components for affect generation and affective dialog management.

In one experiment, the IAS interacted with participants in a virtual reality environment (Gobron et al., 2011). The system's capabilities for leading enjoyable and realistic dialogs and for establishing an emotional connection with a user was compared with a Wizard-of-Oz setting in which the same setup is used but a human experimenter takes the role of the system (Skowron, Pirker, et al., 2011). These experiments demonstrated the system's ability to match the results of the Wizard-of-Oz condition. Further experiments demonstrated the successful use of different personality profiles (Skowron, Rank, et al., 2011; Skowron, Theunis, et al., 2011) in the interactive system, and the convincing realization of specific communication scenarios and their effect on the communication style of users as well as on the expressed content and affect. These results suggest that users, depending on the specific scenario, assumed a more open, positive, and sharing-oriented attitude (Skowron, Theunis, et al., 2011). This is in line with the theory on interpersonal complementarity (Kiesler, 1983) which suggests that people in dyadic interactions negotiate their relationship through verbal and non-verbal cues, where dominant-friendliness invites submissive-friendliness whereas dominant-hostility invites submissive-hostility, and vice versa.

Long-term interactions and their social aspects

Current realizations of IAS do not consider the effect of long-term social interactions, but research in affective HCI and psychology already provides insights on the important role of familiarization within dyads. The communicative differences between strangers and friends affect the coordination of dialog turns, resulting in reduced superficial positivity in dyads with repeated interactions (Cassell, Gill, & Tepper, 2007; Lee, 2005). This provides hints for the modeling of an IAS's communication style and its dynamics related to increased familiarity with a particular online group. For example, Yaghoubzadeh and Kopp (2011) propose the modeling of communicative behaviors of communication partners, and a notion of their general knowledge and capabilities aiming at increasing communication efficiency and social acceptability (see also Yaghoubzadeh, 2011).

IAS are socially situated systems that, ideally, incorporate a model of social relationships to both evaluate information from an e-community and to drive behavior in such community (Payr & Wallis, 2011). Prior work in this area includes the development of socially situated systems that provide insights on the modeling of emotion and personality in relation to the social interaction situation (Heylen et al., 2011; Prendinger & Ishizuka, 2003), or the relations between trust and willingness to collaborate, choice of communication style, and compliance with user requests (Martínez-Miranda, Jung, Payr, & Petta, 2008). This line of research is particularly informative for IAS as it investigates the notion of social agents as intrinsically emotional, i.e., also relational.

Social and social network interactions

Research in social psychology highlights the importance of the social context in multi-party interactions: the presence of others influences emotional display (Ekman, 1972; Fridlund, 1991) and expression (Keltner, Young, Heerey, Oemig, & Monarch, 1998), and close relationships shape emotional responses (Anderson, Keltner, & John, 2003; Tiedens, 2001). In multi-user environments, IAS are required to perceive and model this social context and the affective dynamics of events which influence peers and the communication structure of a community's network. In particular, systems need to perceive and respond to events that are typical in online, multi-user interactive settings, such as changes in: (1) the composition of the group, e.g., a user joins or leaves a group; (2) the affective state of the group, e.g., a sudden decrease of the average valence or an increase of sentiment polarity in the posts exchanged between users; and (3) the overall activity level of the group.

Detecting a decrease in activity might trigger, in an example scenario, the emitting of a message or the posting of a new link or comment to a single influential user as selected by a simulation model. A prerequisite for this kind of behavior is the perception and modeling of the group of users (as detailed in this section) in addition to modeling individual users (as described in the "Direct interactions" section). On the individual level, relevant aspects to model are the roles of users in an e-community, estimating e.g., usefulness, noise level, subjectivity, or objectivity of users' contributions, measured based on the sentiment expressed toward users and their posts. On the network level, it includes the monitoring of connections and relations between users, such as friends and opponents, and the occurrence of openly reciprocal exchanges.

In the following, we give an overview of agent-based modeling and simulation efforts aimed at these kinds of capabilities. Regarding simulations of affective group dynamics, this entails requirements concerning both the results of simulations as well as runtime characteristics and the adaptability of the simulation based on data collected during interactions. An agent-based modeling component could also support a particular e-community with an analysis of the affective dimension of the agents' interactions and provide suggestions on ways of counter-acting negative tendencies observed in a group, e.g., a decrease of cooperation or growing hostility between members.

Modeling and analysis of collective emotions in IAS

Mathematical and general modeling approaches to collective emotional phenomena in networks provide potentially useful methods for decision-making in IAS on the social layer. Schweitzer and Garcia (2010) propose a general framework for modeling the emergence of collective emotions in IAS based on the concept of Brownian agents. A promising effort is the study of emotional trajectories in e-communities. Based on the analysis of Internet relay chat data (Garas et al., 2012), methods have been identified to be suitable for inclusion in IAS. For example, characteristics of a whole group regarding fluctuations of affective aspects of behavior over time allow use of the concepts of "synchronization" and "desynchronization" with a dominant interaction pattern as decision factors in the

IAS. The application of detrended fluctuation analysis (Kantelhardt, Koscielny-Bunde, Rego, Havlin, & Bunde, 2001) and the use of the Hurst exponent (Hurst, 1951) to classify this behavior in the long-term provide the basis for synchronization between group behavior and system behavior, potentially influencing the overall group state into a particular direction.

As demonstrated by Chmiel, Sienkiewicz, Thelwall, and colleagues (2011), the probability of encountering consecutive messages of the same emotional valence increases following a power-law with the number of already inserted messages. For the purpose of decision-making in IAS, this can be directly translated to the modification of the system's utterances (Skowron, Rank, et al., 2011) by trying to conform to or violate this observation. The network mapping approach (Gligorijevic et al., 2013) to analysis accounts for the properties of activity patterns and underlying network topologies characteristic for various types of users, including those identified as important or influential in a given online interaction environment.

Modeling individuals and groups

Based on data on previous or the recent part of current interactions with a certain group (e.g., a chat room or a discussion channel), an IAS can use online simulation models, parameterized by the population and the history of the current channel, to derive particular models for the individuals with which it interacts as well for the entire group. The output of such a simulation is a very short-term prediction, with a necessarily modest precision, of suitable candidates for interaction. One important aspect of this kind of model is the identification of role models, i.e., users who are influential in a particular group.

Another aspect of interactions at the group level are the dynamics of discussions involving multiple topics. Models should be able to relate changes in topics to the evolution of affective states of the group, including the perceived interest of the individuals toward particular topics. Experimental results demonstrate that the modeling efforts for predicting the tendencies of user's participation in topic discussion are available (Wu, Bu, Chen, Wang, & Qiu et al., 2010) and can be integrated into the IAS modeling framework.

Modeling of self in online social networks

Similar to the modeling of the self in one-on-one interactions, application scenarios such as ASCC require the ability to adjust one's communication behavior or affective stance according to factors on the social level. This includes the overall mood detected in a group, the group's preferences toward various entities or fellow users, established or evolving social norms, or dynamic changes in interaction patterns between users. Furthermore, a perception of the user's stance toward the system itself and its past actions is necessary, paralleling the model of relations between members of the group.

Effects of interactions in multi-user environments

Research analyzing the interactions in multi-user environments and, in particular, research on the effects of conversational agents on human communication in multi-party

dialogs suggest that the presence of a peer agent improves user satisfaction and leads to an increase of user activity. Similar effects were observed with the introduction of empathic expressions communicated by agents in a multi-party interaction scenario, indicating the usefulness of such agents as community facilitators (Dohsaka, Asai, Higashinaka, Minami, & Maeda, 2009). The acceptance of IAS in multi-user environments is related to their capacities to recognize and react to user-specific traits such as personality (Mohammadi, Mortillaro, & Vinciarelli, 2010) and affective states (Schuller et al., 2009), including the level of interest, or certain socio-demographic characteristics, such as age and gender.

Conclusions

The increasing interactivity afforded by e-communities offers new promising avenues for studying collective emotions on the Internet, and their impact on online and offline events, using artificial agents. The development of such IAS relates to a range of scientific challenges from affect detection, modeling, and generation, to the modeling of communicative and affective dimensions in individuals and groups over time. At the same time, the employed models of emotion need to account for the dynamics and complexity of underlying social networks as well as of aspects of HCI.

In this chapter, we have presented arguments for an interactive study of collective emotions using IAS to: (1) examine the role of emotions in online communication and affective HCI and (2) to support e-communities with the online analysis and prediction of group dynamics. Theoretical results and experimental evidence suggest that such artificial systems are able to analyze, model, and influence the emotional states of individuals and groups. Such systems, equipped with extended representations of social-network structures, and paired with capabilities for detecting expressions of emotional states and for interacting affectively, have a high potential for interactive scenarios where cooperation, integrity, and efficient exchange of information in e-communities can be supported and enhanced.

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Chapter 28

Gender and social sharing of emotions in large-scale social awareness streams

Funda Kivran-Swaine^a and Mor Naaman^b

^aRutgers University and ^bCornell Tech

Social network sites (SNS) such as Twitter and Facebook have become increasingly popular throughout recent years. More and more people turn to these platforms to actively communicate with the members of their online social networks. In fact, results from a recent survey reveal that two out of three adults in the US are members of SNS (Smith & Rainie, 2010).

The central feature of today's popular SNS is "social awareness streams" (SAS) (Naaman, Boase, & Lai, 2010), streams of short and primarily textual content, posted by the contacts of a given user. For instance, users of Facebook see a "News Feed," which consists of reverse-chronologically ordered short updates from their list of contacts, as soon as they login to the system. Similarly, the primary content in Twitter presented to users is a list of Twitter updates, "tweets," posted by the users' contacts. One of the main drivers of use in widely used SNS like Facebook and Twitter is in fact SAS. For example, on an average day, 15% of Facebook users in the US post at least one Facebook status update (Smith, 2011).

SAS not only give users of SNS a means to be in sync with the events taking place in the lives of the members of their social networks, but also ways to engage in interactions around the posts they see. For instance, in Twitter, a popular SNS that allows posting of messages up to 140 characters, users can "reply" to a post and take part in interactions with one or multiple other users. In Facebook, users can contribute a "comment" to a status update they see on their News Feed, thus engaging in discussions of the subject matter of the original post. As a matter of fact, interactions around SAS posts are quite common among SNS users: almost a quarter of Facebook users in the US write a comment on a post authored by a contact, on any given day (Smith & Rainie, 2010).

SNS offer a unique opportunity for studying interpersonal communication patterns. Through data provided by SNS in general, and SAS in particular, interpersonal communication patterns can be examined in large scale, and moreover in their natural settings. In other words, interactions that take place in SNS are in their intended social surroundings, and not in an environment controlled solely for purposes of research. SNS like Twitter and Facebook also make available additional context about the users and their relationships

(e.g., personal data or contact network metrics), which is not readily attainable in other settings. While studying communication patterns through the analysis of SNS activities, for instance, we are able to assess the structural network properties of users and dyads of users, which help us to reason about the strength of their relationships.

Emotional communication is a crucial social phenomenon, known to take place within computer-mediated communication (CMC) (Kivran-Swaine & Naaman, 2011; Nardi, Schiano, Gumbrecht, & Swartz, 2004). More and more, people use SNS for interpersonal communication, on matters that are rather intimate such as sharing news surrounding life changing events (e.g. birth of a child, death of a loved one) or even more common daily emotional experiences. In fact, emotional catharsis has been found to be one of the main motivators for people to write blog posts (Nardi et al., 2004). More recent research also shows that expressions of emotions, gauged by analyzing use of emotion-laden language in user-created content, are commonly found in Twitter, and relate strongly to properties of social networks users maintain (Kivran-Swaine & Naaman, 2011).

SAS also make for an exceptional environment to study communication behavior in general, and emotional communication in particular, due to the semi-public nature of interactions that take place within these platforms. Exchanges that happen in SAS are readily visible by the online contacts of the participants in the directed exchange. Patterns and styles of conversation may therefore differ from other CMC or traditional non-mediated settings. For instance, the nature of the online social network maintained by users can influence how they regulate the style as well as the content of their communications. People may feel more or less comfortable using emotional language, or disclosing emotional experiences, when the audiences of their messages consist of intimate and close relationships versus those they know from more formal settings like workplace.

The relationship between communication patterns and gender has long been subject of research in both offline and CMC settings. A number of studies addressed gender as one of the individual factors that influence the content and style of communication (Brownlow, Rosamon, & Parker, 2003; Lakoff, 1975; Mulac, Wiemann, Wiedemann, & Gibbons, 1988; Pennebaker, Mehl, & Niederhoffer, 2002). Another factor that has been shown to influence patterns of communication is the intimacy and the intensity of the relationship between communicating parties (Bergs, 2006; Mulac et al., 1998).

Understanding how emotional communication takes place in social media as well as how it relates to basic individual attributes such as gender is an important step towards revealing the ways in which valuable psychosocial information is exchanged in these new communication environments, and how emotional communication between individuals is tied to the nature of their relationships. Thus, in this chapter, we begin by reviewing previous work on expressions of emotion as it relates to gender. We then outline how the relationship between gender and communication styles, mainly emotional communication was previously observed in CMC environments. Following the review of past work on gender and emotion in non-mediated and mediated environments, we present our understanding of how SNS, as unique communication channels, play important roles as environments through which researchers as well as practitioners can gain insights on the

relationship between gender and communication. Additionally, we delineate factors that should be taken into consideration from theoretical as well as methodological perspectives when examining the complex association between gender and expression of emotions. Further, we tie the theoretical leanings that are reviewed to empirical findings by reporting on a case study, which looked at how gender composition of interacting dyads of users relate to the use of emotional language in conversations that take place on Twitter.

Emotional communication: theoretical background

It is natural for people to share emotions, in the physical world, and online. Thinking about as well as expressing emotional experiences through language presents people with insights on emotional events they are going through. Social sharing of emotion, disclosing of emotional experiences with others, takes place when the intensity of an emotional experience exceeds a certain threshold. The sharing of emotional experiences often occurs shortly after the experience, usually with the intimate contacts of the person going through the experience (Rimé, 2009).

Social sharing of emotions has long been associated with positive health outcomes for those who disclose their experiences. Previous research shows that endorsing the expression of a range of emotions (both positive and negative) is related to positive health outcomes in breast cancer patients, and similarly, greater expression of anger is correlated with lower levels of depression and higher perceived quality of life (Frisina, Borod, & Lepore, 2004). Emotional expressions can help people to better understand and ground their experiences. Pennebaker (1997) has shown the potential of emotional expression to be therapeutic for those disclosing their emotions. Moreover, it has been previously demonstrated that emotional expression, whether positive or negative, has positive outcomes for the relationships formed and maintained by individuals. Emotional expression, for instance, is beneficial for development of intimacy between people, and is a sign for one's ability to respond to and relate with others' experiences (Keltner & Kring, 1998). On the other hand, suppressing emotions as a way of regulating them can have detrimental consequences for individuals (Gross & John, 2003) as well as for those with whom they maintain relationships (Kashdan, Volkmann, Breen, & Han, 2007).

The social sharing of emotions not only benefits the ones who share by means of elicited social support, or those who are in the immediate social circle of the disclosers, but also carries value for the members of disclosers' social networks. Emotional Broadcaster Theory (EBT; Harber & Cohen, 2005) states that the emotional experience people share contains important psychosocial information—cautionary tales about interpersonal matters—for the members of their social network. As shared emotional experiences carry valuable psychosocial information, they get transmitted quickly within social networks.

CMC channels are found to be as conductive media as face-to-face settings for expression of emotions, despite the early controversy in the field, which claimed that the lack of non-verbal communication cues such as facial expressions may obscure or lower the quality of interpersonal communication. Recent literature on emotional expression in CMC suggests that there is no conclusive empirical evidence for CMC being less

emotional than face-to-face communication (Derks, Fischer, & Bos, 2008). Moreover, several studies showed that more explicit emotional communication can be observed in CMC settings, compared to face-to-face settings (Derks, Fischer, & Bos, 2008). In fact, sharing of emotions was found to be one of the main drivers behind blogging (Nardi et al., 2004), and emotion-rich messages were frequently observed across social web platforms such as MySpace (Thelwall, Wilkinson, & Uppal, 2010) and Twitter (Kivran-Swaine & Naaman, 2011).

The hyperpersonal communication theory (Walther, 1996) can explain the potential of CMC to be emotion-rich. The theory suggests that people exploit technological aspects of communication media in order to enhance their messages or facilitate their relationships. It is possible that the ability to meticulously sculpt messages, together with the propensity of CMC to facilitate self-disclosure more so than face-to-face settings (Joinson, 2001), may be creating an environment where emotional expression is relatively unforced and effortless.

Gender and emotion

In almost any society there are socially constructed gender-differentiated roles, swaying men and women to exhibit different social behavior styles, including the sharing of emotions, within their social surroundings. Social role theory suggests that gender differences in social behavior are due to socially constructed rules about how men and women should behave, and people's inclination to act in compliance with their expected gender roles (Eagly & Wood, 1991). Particularly in the US and other Western countries, women typically keep professions (i.e., school teacher, healthcare worker) with substantial caretaking responsibilities embedded in their job descriptions. Even when women are economically independent, domestically, they still often hold their role as the primary caregivers of their children, or for the elderly members of their families. These roles characteristically require the participants to create and maintain close social ties with people they are caring for, and often, frequent expression of emotion is necessary to build these ties (Alexander & Wood, 2000).

Following this premise, previous research from social psychology states that positive emotions directed to others are more likely to be experienced by women than by men, and in general women are more likely to express emotion over others than over themselves. In fact, when exposed to specific stimuli, women report happiness more frequently and more intensely than do men. In addition, the intensity of happiness is significantly different between men and women, for both the experience and the expression of it (Stoppard & Gunn Gruchy, 1993).

Women and men also differ in how they share emotional experiences within their social networks. While talking about non-emotional topics, women and men disclose equally to their contacts. However, when addressing emotional topics in face-to-face interactions, women disclose to their social networks significantly more (Snell, Miller, Belk, Garcia-Falconi, & Hernandez-Sanchez, 1998). Additionally, women are more likely to talk about their emotions with a greater variety of people than men. In general, previous

research shows that women are more expressive in their relations than men across adulthood. They communicate more frequently and more intimately with their friends. While communicating within their social networks, women talk more about personal experiences, emotions and feelings, while men prefer to talk about topics such as politics and sports. On the whole, women's relationships to others are interpreted to be more expressive, where sharing of the emotional experiences in their lives are fundamental to creating interpersonal bonds. On the other hand men's relationships can be classified as more instrumental. Also, for men emotional experiences are more autonomous events that need not be lived by social sharing.

A number of previous studies used computational analyses of language use to capture and measure expression and levels of emotion, examining use of words that have been shown to be frequent in expressions of emotions such as joy or sadness (Kivran-Swaine & Naaman, 2011; Pennebaker et al. 2002; Thelwall et al., 2010 Kapidzic & Herring, 2011). In some of these studies, significant gender differences in emotional expression emerged; women were found to be emotionally more expressive than men (Mulac, Bradac, & Gibbons, 2001; Pennebaker et al., 2002; Thelwall et al., 2010) and overall carry a more positive tone in their public discourses than men (Kapidzic & Herring, 2011; Thelwall et al., 2011).

In addition to words and phrases with high emotional valence, emoticons, i.e., "emotional icons," can be seen as ways of expressing emotions, unique to computer-mediated environments. Emoticons represent non-verbal cues such as smiling, frowning, or winking (Wolf, 2000). Emoticons carry influence on the interpretation of the message they accompany, as appropriate representations of non-verbal cues they symbolize (Derks, Bos, & Grumbkow, 2008). Previous work that looked at the use of emoticons in various CMC channels such as electronic discussion boards, chat rooms or blogs found significant gender differences in trends of emoticon use. Women were found to use emoticons more frequently than men do (Witmer & Katzman, 1997; Wolf, 2000). Furthermore, it was observed that men's level of emoticon use rose to match women's level when interactions took place in mixed-gender groups (Wolf, 2000). However, contrary to aforementioned findings, in a study of blogs authored by teenagers, it was observed that boys used emoticons in blog posts significantly more than girls (Huffaker & Calvert, 2005).

To summarize, previous work illustrates that online environments are home to significant amounts of emotional communication. However, it is not yet conclusive whether gender differences that have been observed in traditional settings hold in these new platforms. For instance, while the work by Huffaker and Calvert (2005) suggests that known gender differences in communication styles may be disappearing or becoming less pronounced, studies by Thelwall and colleagues (2011) on social media platforms and Kapidzic and Herring on chat rooms (2011) largely observe the gender differences that conform to studies in non-mediated environments; women tend to be more emotionally expressive.

Studying emotion and gender in social media

With their growing prevalence in the sphere of interpersonal communication and the vast amounts of data made available through them, social media offer an unprecedented opportunity to observe and study human communication behavior, at a scale that was not available before. Moreover, data retrieved from channels of social media can reveal individual and social characteristics, creating a prospect for researchers to investigate how communication behavior relates to the attributes of individuals communicating (e.g., age, gender), attributes of the online social network the communication occurs in (e.g., group of friends, family, co-workers, strangers), or the larger social or cultural context within which individuals interact.

One major strength of studying emotional communication in SNS is the fact that through traces of information gathered from SNS, it is now possible to untangle the complex relationships between social context, individual characteristics, and expression of emotions. For instance, previous work has shown the degree to which individuals feel close to each other can be estimated quantitatively from SNS data (Gilbert & Karahalios, 2009). The intimacy and the intensity of the relationship between the communicating parties have been shown to influence communication style (Bergs, 2006). In our previous work, we have demonstrated that trends of emotional expression in Twitter have a strong relationship with social network characteristics such as network size and density. Individuals who express emotions more frequently through their SNS tend to have larger and less dense online social networks (Kivran-Swaine & Naaman, 2011).

Another advantage brought by studying expressions of emotions through analysis of SNS use is that, for the most part, social media environments are not controlled for the purposes of research. Therefore the interpersonal interactions can be retrieved from these platforms where they are archived in their intended natural settings. While it is likely that we can capture more natural behavior in SNS than in laboratory settings, it should still be noted that SNS can be highly *performative* environments, where people are likely to alter their language as well as acts based on their audiences. As SNS use is primarily driven by use of SAS, which is primarily an interaction-based mechanism, people may take part in facework (Goffman, 1959), dramatically shaping their self-representations based on the (perceived, or actual) recipients of their messages. For instance, as highly emotional messages can be more attractive for readers, people may choose emotionally rich expressions to garner interactions from their online social networks. In contrast, if it is expected from people to maintain a more stoic or professional face (e.g., where members of the online social networks come from professional or formal settings), people may have qualms about sharing emotional experiences or even using emotional language. When social elements, such as the nature of the relationship between individuals and the members of their online social networks, are taken into consideration, what roles does the gender of individuals play in how they express emotions? Can gender differences in communication in fact be explained by the type and strength of the relationships maintained in one's online social network?

To demonstrate how the phenomena of emotional expression and gender can be studied leveraging information about people and their communication patterns via analyses of SNS use, we present an original case study. The study investigated markers of emotional communication as they relate to the gender of communicating parties while considering the strength of the relationship and size of the audience of the interaction. The study uses a dataset of directed interactions on Twitter.

Case study: gender and emotion in dyadic interactions on Twitter

To uncover how the social characteristics of the environment in which the interaction took place (related to the emotional content of the interaction) we use a set of 1753 unique dyadic relationships between Twitter users, and 78,000 directed semi-public messages between the users in these dyads. We address the question of how the gender composition of interacting dyads relates to the use of emotional language in online conversations.

Social interaction on Twitter

Twitter is a popular SNS that allows users to post status updates of up to 140 characters (called “tweets”). While politicians may use Twitter to disseminate political campaign messages and or corporations may use it to release information that is pertinent to their customer base (Smith & Rainie, 2010), a large number of people use Twitter for purposes of interpersonal interactions with their friends. Furthermore, the majority of content posted by those using the platform for personal purposes, contains information about what people are up to at a given point in time (Naaman et al., 2010). Previously referred to as “meformers,” this particular group of Twitter users use the platform to present to their audiences snippets from their daily lives, in forms of updates about their daily activities.

The user activity within Twitter is primarily focused around “streams” of content. Twitter users are connected to others via asymmetric “follow” relationships: If Rushi follows Amy on Twitter, it does not imply that Amy is following Rushi. When Rushi follows Amy, Rushi will see Amy’s tweets when he logs into Twitter, along with the tweets of all the other users that Rushi follows. These tweets will be shown as a reverse-chronological stream (known as a “timeline”). By default, Twitter messages are publicly viewable. We only consider publicly available data in this work.

In Twitter, communication conventions called *mentions*, *replies*, and *re-tweets*, allow for different modes of interaction between users. In this case study, while looking at expressions of emotion, we focus on the reply mechanism only. A Twitter user can reply to another user by starting their message with an “@” immediately followed by the correspondent’s username. More simply, a *reply* is generated by pressing the “reply” button that most Twitter applications display underneath posts from other users. Most Twitter applications also provide an alert or indication to the target user when there is

The screenshot shows a Twitter interface. At the top, a user profile icon with mathematical symbols (+, -, ×, ÷) is displayed next to the handle @DrKivranSwaine and the name Dr. Kivran-Swaine. The tweet content is "What are you doing later today?". Below the tweet are standard Twitter interaction buttons: Reply, Retweet, Favorite, and More. The timestamp is 1 Jul. Below the tweet, there is a reply input field labeled "Reply to @DrKivranSwaine". A second tweet from user funda k-s (@funda_k-s) is shown below, with the content "picking the kid up, and heading home." and the same timestamp of 1 Jul. This second tweet also has its own set of interaction buttons.

Fig. 28.1 Example of a Twitter reply interaction (interaction shown here is not a part of the dataset for the reported study).

content directed to them such as replies, and show that directed content in a dedicated pane when the user logs in. By default, these reply messages are also shown publicly on the sender's profile page on Twitter. Moreover, the reply will appear in the timeline of all users following both the sender and the target of the reply. In other words, if Leonard follows Jerry and Amy, replies from Jerry to Amy (or vice versa) will appear on Leonard's stream of updates. For an example of a reply exchange on Twitter, see Fig. 28.1).

Data

For this case study, we extracted a dataset of Twitter interactions, consisting of *replies* between Twitter dyads, as well as the genders of participating users, and the Twitter contact network (followers and followees) around the users in each dyad.

We generated our dataset by first identifying 715 Twitter users from data obtained in a previous study (Naaman et al., 2010). This set, S , includes *seed users* that were randomly selected in April 2009 and were identified as active, personal users of Twitter, not representing commercial entities or celebrities, and follow, or are followed by, fewer than 5000 users as of a year later, April 2010. For each user $s \in S$, we obtained the number of tweets s had posted between May and August of 2009, including replies by s to other users, as well as replies posted by other users addressing s . Using these messages, we identified all dyads (s, f) such that: (1) s replied to f at least twice, and (2) f replied to s at least once. Selecting users in this way ensures that (1) the seed corresponds with the follower in non-trivial manner, and (2) both sides are engaged in the exchange and have a somewhat meaningful interaction.

To obtain gender labels for the users in our dataset, we used Amazon Mechanical Turk (AMT), a crowd-sourcing platform, to code users' gender as male, female, undetermined sex, or not a person. AMT assistants consulted each user's Twitter page, a personal homepage on Twitter usually containing verbal and photographic self-descriptions, to identify self-disclosed gender. The coding demonstrated high levels of accuracy across raters and the authors' own sample ratings (Scott's Pi=0.83). For the analysis, we only retained dyads with reliable gender labels. The resulting data of interacting dyads included 1753 pairs of Twitter users where for each dyad (x,y) we determined a set $I_{x,y}$ of replies exchanged

between users (we refer to the subset of replies in this dyad that were directed from x to y as $I_{x,y} \subseteq I_{x,y}$). The content dataset resulted in a total of 77,989 replies, an average of 44.5 interactions per dyad. Some seeds were represented more than others in our data as they participated in more dyadic conversations. For our analysis, we provide some control for the skewed distribution of our sample by looking at both, the level of conversation and at the level of individual tweets. Beyond dyadic interactions, we extracted the network connections around each dyad. Using the Twitter social network snapshot from July 2009 (Kwak, Lee, Park, & Moon, 2010), we retrieved all users z such that z is either followed by or following one of the users in the dyad. We used this network to compute “common neighbors” variables (see later).

To create a broad sample of messages exchanged between users, the first sample captured variables at the level of individual tweets. This *tweet sample* was used to examine different linguistic style markers at the tweet level, e.g., the existence of pronouns in a tweet. In this sample, each tweet is described using a four-level categorical gender composition variable, as each tweet can be directed from Male to Male (shorthand: M»M), Male to Female (M»F), Female to Male (F»M), or Female to Female (F»F). To create the tweet sample and to minimize bias from any one individual or dyad, we included at most 10 messages from each person in a dyad. When one side of a dyadic exchange included more than 10 messages ($|I_{x,y}| > 10$), we selected 10 at random. This set included 25,641 individual tweets from 1753 dyads (4248 F»F, 5261 F»M, 5482 M»F, and 10650 M»M tweets). The average number of tweets per dyad was 14.6 (or 7.3 from each user in each dyad).

To capture more substantial exchanges between two individuals, we prepared a sample of “conversations,” or substantial exchanges of replies between two individual users. This *conversation sample* was used to look at the magnitude of different variables at the dyadic level, e.g., the proportion of positive emotion words included in a conversation. Each conversation is described using a three-level categorical gender composition variable as each conversation can be characterized as male–male (MM), male–female mixed (MF), or female–female (FF). To ensure a significant amount of interaction between users in each dyad, we included only the subset of conversations that consisted of at least 10 messages between the users in the dyad ($|I_{x,y}| \geq 10$). This resulted in 1343 dyads (222 FF, 56 MF, and 556 MM) that exchanged an average of 56.2 messages.

Variables

Our analysis is based on variables at the tweet and conversation level derived mostly using the “Language Inquiry Word Count” (LIWC) dictionary (Pennebaker, Chung, Ireland, Gonzales, & Booth, 2007). We also derived descriptive network variables for each dyad in our dataset. For each linguistic feature, we used the LIWC to generate tweet-level variables for each tweet in the tweet sample, and conversation-level variables for each conversation in the conversation sample. For the tweet sample, as tweets are too short for generating distinguishing and meaningful counts or proportions of words, we used the LIWC to code each tweet as 1 (includes at least one word in the linguistic category) or 0 (none). For the conversation sample, for each linguistic category we calculated $ratio_C$

i.e., the ratio of the number of category words in each conversation C (identified by the LIWC) to the total number of words in the conversation.

A previous study on emotional expression in Twitter showed that the LIWC categories “posemo” and “negemo” are highly correlated with human codings of joy and sadness (Kivran-Swaine & Naaman, 2011). Therefore, we chose these two categories to capture the use of words that express positive and negative emotions in Twitter replies. While we are interested in conversations between dyads of different gender compositions, other variables may offer an alternative explanation for the content and style of conversation. Most prominently, the type and strength of ties between individuals in a dyad may play a role. Tie strength between people is known to affect the emotional communication between them as well as the linguistic style used in conversation (Bergs, 2006; Gilbert & Karahalios, 2009). In order to account for these effects, we calculated the dyad’s number of common neighbors, i.e., the number of Twitter connections shared by the members of the dyad, which has previously been shown to be associated with tie strength in social media (Gilbert & Karahalios, 2009; Kivran-Swaine et al., 2011). Formally, if neighbors of node z are defined as $N_z = \{w | w \rightarrow z \text{ or } w \leftarrow z\}$, then the number of common neighbors for a dyad (x,y) is $|N_x \cap N_y|$.

Analysis

We looked at levels or existence expressions of two types of emotions; joy and sadness, as determined by the LIWC categories “posemo” and “negemo.” For each of these categories, we test two dependent variables, one computed from the tweet sample, and one from the conversation sample. In the *tweet sample*, the unit of analysis is a tweet, and the dependent variable is the existence (0–1) of a category word in the tweet. We used binary logistic regression models to examine associations between our variables. Each model uses two independent variables (IV), the dyad’s gender composition and the number of common neighbors shared by the dyad’s members. Gender composition is a four-level categorical variable representing the possible gender compositions for the dyad (M»M, M»F, F»M, F»F). Common neighbors is a numerical (log-normalized) variable. We thus test whether the existence of category words in replies can be explained by the dyad’s gender composition, beyond the effect of the number of common neighbors shared by the dyad.

In the *conversation sample*, the unit of analysis is a dyad’s conversation, and the dependent variable is based on the ratio ρ capturing the proportion of words that belong to the linguistic category in a conversation. Similar to the analysis of the tweet sample, we computed a multinomial logistic regression model for each category to explain the use of category words in the conversation. Each model uses two independent variables, the dyad’s gender composition and the number of common neighbors shared by the dyad’s members. Here, gender composition is a three-level categorical variable representing the possible gender compositions for the dyad (MM, MF, FF) and common neighbors is the same variable used in the tweet sample.

In the regression analyses, we looked at levels of use of “posemo” words as a way of operationalizing emotional communication and to investigate gender differences.

However, differences in expressions of emotions may show not only through shifts in levels of use but also by way of how words with high emotional valence are used differently. Therefore, we performed secondary analyses, on word-level, to find words expressing positive emotions that are the best predictors for each gender composition. Since we use dictionary-based methods, we can measure how the use of individual words from the group of positive emotion words differs between dyads of different gender compositions. To this end, we used the tweet sample to perform an analysis of word use for positive emotions.

For our token-level analysis, we looked at the degree of “predictiveness” of each word in the list of positive emotion words provided by the LIWC with regard to the gender composition of a message. Specifically, each word in the vocabulary that was used by a number of users above a predefined threshold (100 in our analysis) was scored with regard to each gender composition according to the following function: $\text{pred}(t,c) = f(t|c)/f(t)$, where $f(t|c)$ is the fraction of tweets with the gender composition c that contain the token t , and $f(t)$ is the fraction of tweets containing the token t in our dataset as a whole. This allows examining the high-scoring tokens for each gender composition, i.e., words which are much more likely to occur in specific gender compositions compared to others.

Results

As predicted by the theories previously discussed, users are expected to share emotional experiences, or use emotional language more readily when interacting with those they feel close to. It is therefore possible that the use of emotional language in interactions can be empirically explained by the tightness of the relationship between conversing parties, instead of gender. Thus before looking at the relationship between gender composition of dyads and the tendencies of emotional expression, we first investigated the relationship between the number of common neighbors shared between the members of conversing dyads (as a proxy for tie-strength) and the gender composition of conversing dyads. Analyses of variance (ANOVA) results suggest, as expected, that there are significant differences between gender groups in relation to the number of common neighbors (for tweet sample, $F(3,23818)=87.66$, $p < 0.001$). Post hoc analyses in both cases revealed that MM dyads had significantly more common neighbors than FF dyads, who had significantly more common neighbors than mixed-gender dyads. These tendencies for gender-homophily in relationship strength suggest that stronger ties exist between individuals of the same gender and demonstrate the need to control for the number of common neighbors. Our case study shows that the use of positive emotion words in Twitter interactions is significantly affected by dyad gender composition, even after controlling for the number of common neighbors shared by the dyad, thus presenting partial support for both of our hypotheses.

The regression model showed that the number of common neighbors did not contribute to explaining positive emotion word use in tweet or conversation samples; however the gender composition had a significant effect. Here, we report the odds ratios (OR) from our regression models. For the tweet sample, the OR represents the increase in odds

Table 28.1 Most predictive positive emotion words for each gender category, with *pred* (*t,c*) values.

F»F	F»M	M»F	M»M
love (1.82)	lol (1.23)	haha (1.20)	
thank (1.66)	good (1.55)	lol (1.15)	
hope (1.50)		cool (1.14)	
haha (1.35)			
lol (1.29)			

of positive emotion word use, for each gender composition. For example, the OR of 0.65 for M»M suggests that if a tweet is from a male user to another male user, the odds of a positive emotion word appearing in that tweet decreases by 35%. For the tweet sample, the F»M (OR=0.88, $p < 0.01$), M»F (OR=0.76, $p < 0.001$), and M»M (OR=0.65, $p < 0.001$) compositions made the existence of positive emotion words less likely. Similarly, the conversation sample regression model showed that MM (OR=0.31, $p < 0.05$) gender composition makes high level positive emotion word use less likely.

The chi-square test on the tweet sample indicated that women in general are more likely to use positive emotion words in their interactions with others on Twitter. In the tweet sample, a significantly higher proportion of replies by F»F dyads (53.9%) and F»M dyads (50.5%), and a significantly lower proportion of replies by M»M dyads (43.5%) contained at least one positive emotion word, compared to those by M»F dyads (46.7%). On the conversation level, we saw a similar trend. Women used higher levels of positive emotion words. Moreover, positive emotion words were used more in women-only dyads than in mixed-gender dyads. For example, a significantly higher proportion of FF dyads (26.6%) and a significantly lower proportion of MM dyads (8.6%) exhibited high levels of positive emotion word use in their conversations, compared to MF dyads (15.6%). The group differences between gender compositions were significant, both in the tweet sample $\chi^2 (3, N=25641)=156.91, p < 0.001$, and the conversation sample, $\chi^2 (4, N=1343)=55.08, p < 0.001$.

The use of negative emotions was much less frequent in our data and the regression models for tweet and conversation samples did not reveal any significant results in terms of differences exhibited by different gender compositions. The token-level analysis also did not reveal any predictive negative emotion words for the different gender composition groups.

Overall, results from regression analysis show a significant connection between gender composition of interacting dyads and trends of emotional expression (for joy), even after controlling for the strength of ties between the members of the dyads. Our results reveal that, consistent with previous literature on gender differences in emotional expression, positive emotions were expressed more readily in interactions by, and in particular between, women.

Results of the token-level analysis highlight word-choice differences between different gender compositions of interacting dyads. Words expressing positive emotions, terms that stand out in their predictive power for each gender composition, are listed

in Table 28.1. These results show us that terms that are most predictive of interactions between two female users are indicative of intimacy and gratitude (e.g. “love,” “thank,” “hope”). On the other hand, terms that are most predictive of mixed-gender interactions signal shared humor and enjoyment about the interaction (e.g. “lol,” “haha”) and are symbols of non-verbal actions. With these few preliminary findings, we can see that perhaps men and women not only engage in emotional communication at different levels, but also in drastically different ways, possibly in different contexts.

Conclusion

Social media services, and especially social network sites, can serve as an exciting laboratory for studying human communication, through analysis of language use. Social media thus provide a significant opportunity for research in communication and social psychology, to extend and develop the understanding of interpersonal communication in different social and cultural groups, and relate patterns of self-disclosure to other forms of social processes like relationship formation, status, emotional well-being, and more.

By looking at cases of emotional communication in Twitter reply exchanges, through analysis of language use, we have shown that, beyond the potential effect of the strength of tie between conversing users, the gender composition of conversing users is significantly associated with the emotional content present in interactions, specifically for the positive emotion of joy. Uncovering, at this scale, the effect of gender on bi-directional interactions in semi-public spaces of social media is important to develop a better understanding of how people vary in their use of social media, and how their social media use relates to their natural tendencies.

In this case, we show that public communication on Twitter does not change but rather confirms known tendencies in emotional expression. Differences between genders in emotional communication on directed responses on Twitter largely follows, what has been shown in other (offline and computer-mediated) settings. According to our analyses, female users in general are more expressive of positive emotions than male users, and their levels of emotional expression heighten during interactions with other females. Yet, when carrying our analyses one step further, looking at word choices of female versus male users in their public interactions, we see hints at differences in context as well as characteristics of their emotional communications.

The results of our case study are reminiscent of Nakamura’s findings (2002) about race online, particularly that structured issues that impact our non-digital lives carry into our digital lives as well. However, by looking at the evidences presented by this study alone, we cannot attest with confidence about the different factors that may be in play in mediating the relationship between emotional expression patterns and gender. We are cautious not to reduce the findings of our case study to a simple conclusion of “Women express or share their emotions more than men.” It is possibly the case that the majority presence of gender normative users in Twitter is drowning out others. As such, particularly in an era of machine learning, classifiers, and big data, we believe that future research should focus on

ways of detecting more subtle variations of gender performance. For example, how much of the differences in expression of joy driven by social roles? Gender-differentiated social roles are likely in play, and may even have enhanced influences in the semi-public settings in social media, where one is more inclined to act in compliance with one's expected gender role, in the presence of an active audience, consisting of the members of one's social network. On the other hand, the semi-public nature of communication adds an element of performance and identity building, which may influence the use of language beyond the effect of gender composition.

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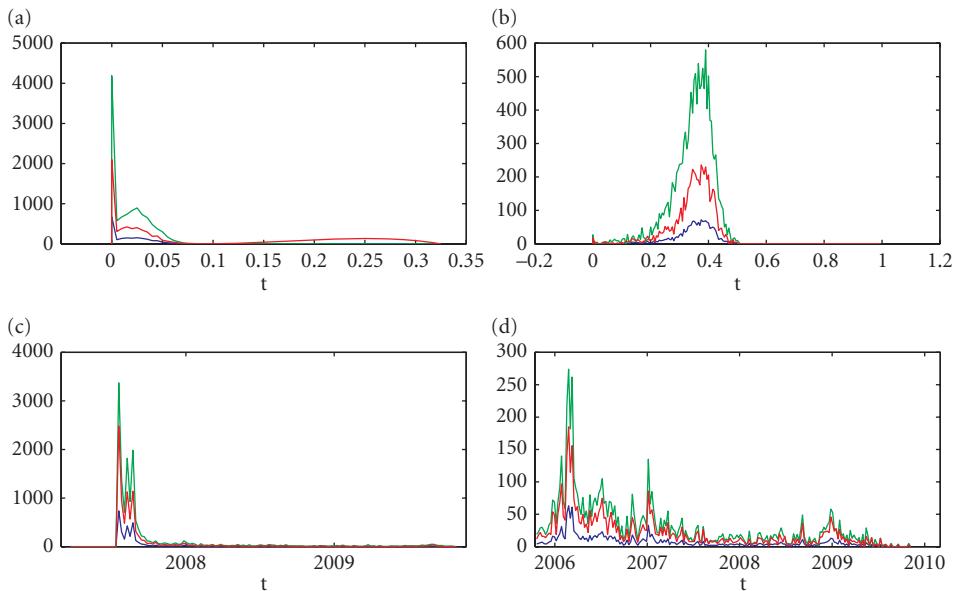


Plate 1 Amount of ratings (black), total positive expression (light gray) and total negative expression (dark gray) for the simulated time. Rate of reviews and emotions for a strong media impulse (a) and when the emotions spread through the community (b). Weekly statistics for *Harry Potter and the Deathly Hallows* (c) and *Marley and Me* (d). © 2011 IEEE. Reprinted, with permission, from *IEEE Proceedings, Emotions in Product Reviews—Empirics and Models*, Garcia, D., & Schweitzer, F., pp. 483–488.

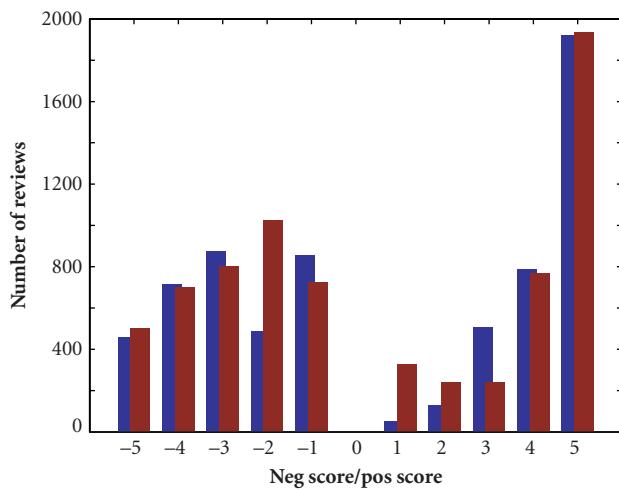


Plate 2 Comparison between the emotional distribution of the reviews for "Harry Potter" (dark gray) and the simulation results (light gray). © 2011 IEEE. Reprinted, with permission, from IEEE Proceedings, Emotions in Product Reviews—Empirics and Models, Garcia, D., & Schweitzer, F., pp. 483–488.

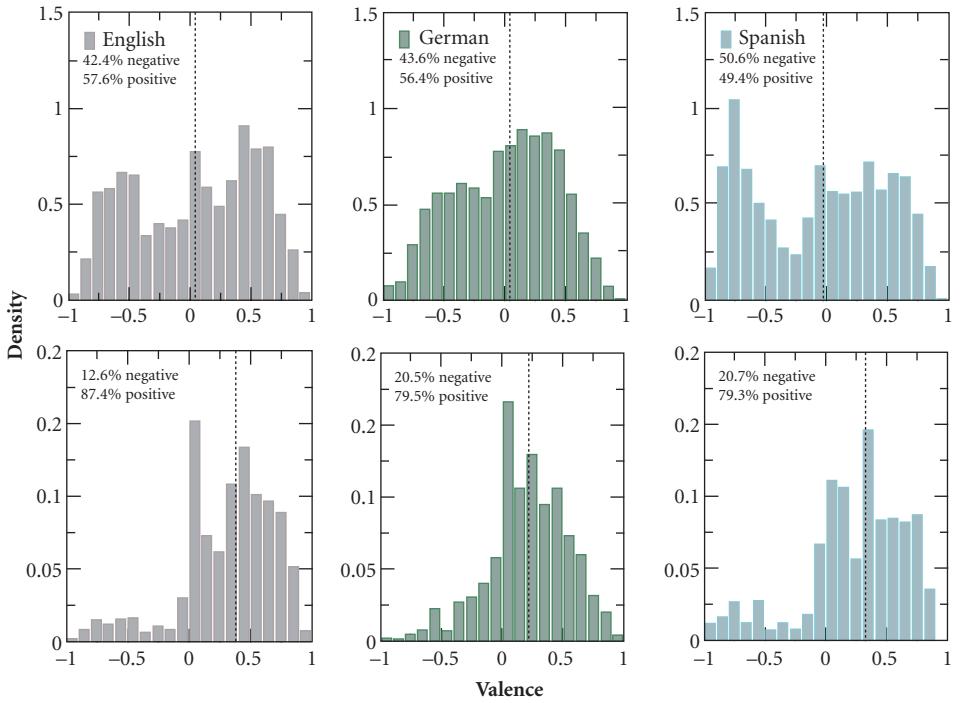


Plate 3 (Upper panel) Distributions of reported valence values for words in English (left panel), German (middle panel), and Spanish (right), normalized by the size of the lexica. (Lower panel) Normalized distributions of reported valence values weighted by the frequency of word usage, obtained from the same lexica. Average valence (median) 0.314 (0.375) for English, 0.200 (0.216) for German, and 0.238 (0.325) for Spanish. The dashed lines indicate the median. Inset numbers: ratio of positive and negative areas in the corresponding distributions. Reproduced from EPJ Data Science, 1(1), 2012, pp. 3, Positive words carry less information than negative words, David Garcia. With kind permission from Springer Science and Business Media.

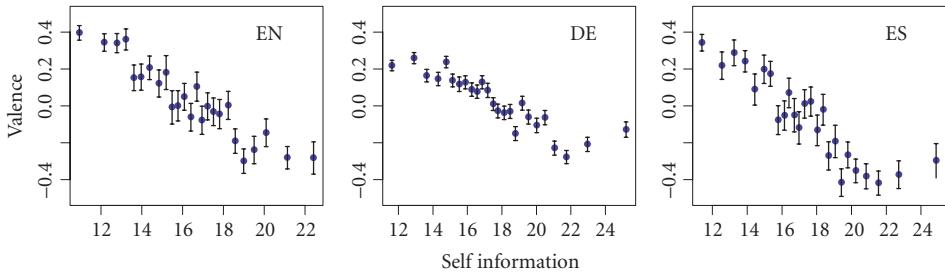


Plate 4 Relation between self-information and valence. Average valence is shown for bins that contain 5% of the data, with error bars showing the standard error. For all the three languages, valence clearly decreases with the self-information of the word, i.e., positive words carry less information than negative words. Reproduced from EPJ Data Science, 1(1), 2012, pp. 3, Positive words carry less information than negative words, David Garcia. With kind permission from Springer Science and Business Media.

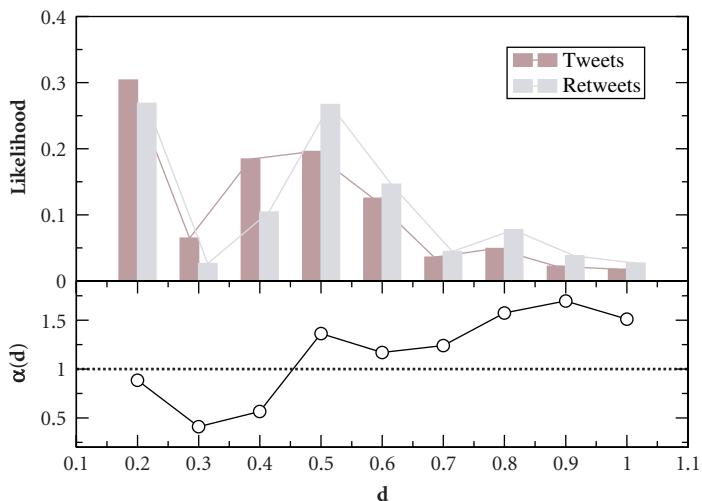


Plate 5 Emotional divergence of tweets and retweets. (Top) Likelihood of tweets and retweets to have emotional divergence (d). (Bottom) Likelihood ratio (Pfitzner et al., 2012).