

16 The Affective ‘We’

Self-Regulation and Shared Emotions

Joel Krueger

1 INTRODUCTION

Discussions of joint action and collective intentionality have mainly focused on the ways in which subjects share intentions and beliefs. Little attention has been paid to shared emotions.¹ But this is an unfortunate omission. Emotions are a crucial part of the formation and maintenance of episodes of collective intentionality. When we commit with our partner to raising a child, make plans with a group of friends to meet up later that evening, assume our place at the back of a taxi line, or dance with a stranger at a club, we are mutually coordinating our actions, intentions, and beliefs toward a common goal. Yet, instances of collective intentionality such as these are not affectively neutral episodes. They are permeated with feelings and emotions. And very often we don’t just feel *for* others. We feel *with* them.

Just as we share intentions and beliefs, so too do we sometimes share emotions. But what does it mean to say that an emotion can be shared? I consider this question, focusing in particular on the relation between the phenomenology of emotion experience and self-regulation. I explore a strong sense of shared emotions: the idea that a numerically single emotion can be given to more than one subject (I term this a “collective emotion”). This idea has not only been defended by developmental and social psychologists (e.g., Tronick et al. 1998; Smith et al. 2007), as well as sociologists (Collins 2004; Rimé 2007; von Scheve and Ismer 2013), but also by a number of phenomenologists (e.g., Scheler 1954; Merleau-Ponty 1964; Schmid 2009; see also the contributions of Chelstrom and Vendrell Ferran in this volume). While I have elsewhere argued that shared emotions may occur in early infancy (Krueger 2013b), I have been skeptical that this strong sense of shared emotions continues into adulthood (Krueger 2014b). Nevertheless, I now want to consider some positive arguments in its favor, as well as briefly indicate why this strong sense of shared emotions may be of broader interest to debates in both philosophy of mind and emotion science.

2 REGULATING EMOTIONS

First, consider emotion regulation. It is not uncommon in emotion science literature to characterize emotions as brief neurophysiological responses beyond our conscious control (see, e.g., Izard 1974; Panksepp 1992; LeDoux 1996). But this passive characterization overlooks the extent to which we shape emotional dynamics like latency, rise time, persistence, range, and intensity (Thompson 1994). One way to highlight this enactive character of emotions is to focus on the relation between emotion experience and *self-regulation*: the processes and strategies by which individuals influence which emotions they have, when they have them, and how they are experienced and expressed.

James Gross (1998, 1999) helpfully distinguishes five forms of self-regulation: *attentional deployment* focuses on specific features of a situation in order to alter its emotional impact. *Cognitive change* involves selecting among various emotional meanings that may be attached to a given situation. *Response modulation* involves influencing behavioral response tendencies once they have been initiated. *Situation selection* involves choosing a situation for its emotional impact. Finally, *situation modification* involves manipulating specific features of that situation in order to further its emotional impact.

For simplicity, I will subsume Gross's taxonomy beneath two more general forms of self-regulation: first, *embodied* forms of self-regulation, which involve subject-centered manipulations such as attentional deployment, cognitive change, and response modulation; second, *distributed* forms of self-regulation, which involve the manipulation of environmental features extending beyond the subject and thus include situation selection and situation modification. The latter will be of special interest. I now consider these two forms of self-regulation in turn.

2.1 Embodied Self-Regulation

Emotions are complex phenomena comprised of multiple dimensions (Parkinson 1995). Looking at these dimensions helps clarify the role that regulative processes play in shaping their character and development. For example, emotions tend to have an *appraisal* dimension. When I am angry, it is because I evaluate features of a situation—e.g., overhearing a colleague making a crude remark about my partner—as negative, relative to my interests. Emotions also tend to have an *agentive* dimension: they put us in a state of action readiness determined by the character of the appraisal. This agentive dimension is informed by patterns of bodily arousal—in the case of anger, increased heart rate, blood pressure, respiration, tensed muscles, flushed skin, etc.—a *physiological activation* dimension. Emotions also often involve an *expressive* dimension (e.g., furrowed brow, sneer, clenched fists, etc.). Finally, emotions feel like something as we live through them.

They are individuated by their *phenomenological* dimension. My interest is primarily in this phenomenological dimension, and especially the way it is modulated by embodied and distributed processes of emotion regulation. Very often, the way an emotion *feels* reflects the manner by which it is *regulated*.

When I overhear a colleague's crude remark about my partner, for example, I have a number of options. I can embrace my anger—I can self-consciously enact a range of taut, brisk movements, shake my fists, and confront my colleague while speaking loudly and pointing a finger in his face. In this case, I am up-regulating my anger such that I deliberately enhance it. Alternatively, I can down-regulate my anger by adopting various strategies to at least partially diffuse it: closing my eyes, turning away and taking a deep breath, relaxing my posture, redirecting my attention to more pleasant matters, etc. To a certain extent, then, I can both enhance and inhibit (or at least *dampen*) my emotional phenomenology.

Since these regulative strategies draw upon subject-centered features of our embodiment, such as agency, expression, and attention, I refer to this as *embodied* self-regulation. Our capacity for embodied self-regulation is empirically well documented. For example, Paula Niedenthal's work suggests that manipulating facial expressions, posture, and gestures directly modulates the phenomenology of emotional experience (Niedenthal 2007; Niedenthal & Maringer 2009). Simply adopting a smile can bring about the feeling of happiness; similarly, a frown—even one in response to walking into the sun (Marzoli et al. 2013)—can induce the feeling of anger or aggressiveness. An exaggerated grimace can enhance pain experience (Salomons et al. 2008). And inhibiting these expressions appears to have a dampening effect. Embodied self-regulation strategies seem to modulate not only the kinds of emotions we have (e.g., smiles generate happiness, frowns generate anger), but also their qualitative character and intensity (Duclos & Laird 2001). And the latter co-varies with the different regulative tools we employ to modulate that character (e.g., facial expressions vs. whole-body gestures vs. vocal strategies vs. attentional deployment, etc.) (Ekman 1965; Levenson et al. 1990).

In order to appreciate the extent to which we enact the character of many emotions, we should note further that, in addition to shaping emotional phenomenology, embodied self-regulation also reaches down into both the *appraisal* and *physiological activation* dimensions. Manipulating facial expressions, for instance, can influence how an individual processes the same stimulus, such as the funniness of a cartoon or the friendliness of individuals (Strack et al. 1988; Ohira & Kurono 1993). And merely producing emotion-specific facial expressions produces autonomic nervous system activity associated with that emotion (Levenson et al. 1990). Taken together, this evidence suggests that we often enact various dimensions of emotion experience by employing resources made available via embodied self-regulation.

2.2 Distributed Self-Regulation

In addition to embodied resources, our regulatory strategies often involve resources that lie beyond the individual—cases where we use environmental tools to modulate our emotional phenomenology. As Gross (1998) notes, not only do we select different situations based upon their emotional impact, such as seeking out the comfort of a trusted friend for a good cry or going out of our way to avoid walking past the office of an irritating coworker, we also manipulate specific *features* of situations. After a long day at work, I may engage in situation selection by retreating to the solitude of my home. But by playing peaceful music, closing the blinds, lowering the lights and lighting candles, etc., I further manipulate the situation (and my emotional response to it) by creating a specific atmosphere *within* that situation; I have, in effect, called a new situation into being (Gross 1998, 283).

I want to take this idea further, however, and discuss an aspect of situation modification Gross does not consider: namely, cases where we allow features of the environment to take over and govern the regulative process *in an ongoing way*. Most of the examples Gross discusses are short-lived interactions or, alternatively, cases where we anticipate situations and avoid them altogether. Yet our emotion-specific environmental transactions often consist of more focused and sustained engagements—ongoing manipulations of environmental features that, as we engage with them, loop back onto us in complex ways and shape what we feel and how we feel it. These engagements are (or at least can be) cases of “emotional off-loading”: instances where we allow features of the environment to do some of the emotional work on our behalf, and in so doing, grant access to kinds of experiences we couldn’t otherwise have without their regulatory input. Considering this sort of environmentally distributed interaction will then take us into a more focused consideration of shared emotions.

3 EMOTIONAL OFF-LOADING: THE CASE OF MUSIC

Across cultures, one of the main reasons we listen to music is to regulate our actions and emotions (Juslin & Laukka 2004). We often use it to intentionally craft a specific atmosphere that modulates our emotional state. This is an example of using music as a tool for situation modification. Music functions particularly well this way, since it both fills and creates acoustic space (Krueger 2009, 2011); it modifies a situation by establishing a sonic landscape within the space of an apartment, restaurant, or place of worship that effectively brings a new situation-within-a-situation into being.

But we often engage with music as a self-regulatory tool in a more intimate way. Tia DeNora observes that music is often used for “venting,” by which she means that music is not simply a tool for expressing pre-packaged emotions, but is rather part of the vehicle by which certain emotions are

developed and experienced. DeNora argues that music can function as an "aesthetic technology" by which we actively work through emotions and moods (DeNora 2000, 56). She argues further that musical dynamics become "part of the reflexive constitution of that state; [music] is a resource for the identification work of 'knowing how one feels'—a building material of 'subjectivity [...] music is both an instigator and a container of feeling'" (DeNora 2000, 57). We off-load some of the regulatory work onto the music and, in so doing, allow it to open up new experiences for us.

One woman DeNora interviewed describes using music to both help induce and structure her bouts of sadness, which she claims is like "looking at yourself in a mirror being sad"; the music functions as a regulative tool for working the listener into a qualitatively deepened emotional state and then gradually leading her out of it (DeNora 2000, 57). Another woman reports using specific musical pieces (e.g., Verdi's *Messa da Requiem*) to work through and articulate felt dimensions of her grief following the loss of her child (DeNora 2000, 58). As DeNora summarizes, these kinds of reports suggest that we allow music to "define the temporal and qualitative structure of that emotion, to play it out in real time and then move on" (DeNora 2000, 58).

So how does music take over emotion-specific, regulative functions? I have considered this question in detail elsewhere (see Krueger 2014a). For brevity, I simply note that the key mechanism—also pertinent to our consideration of shared emotions—appears to be *entrainment*. "Entrainment" refers to instances where two or more independent processes become synchronized with each other, gradually adjusting toward, and eventually locking into, a common phase and/or periodicity (Will & Turow 2011). Entrainment occurs in many domains and at multiple time-scales: two pendulums slowly coming into phase synchrony (Bennett et al. 2002); Asian fireflies flashing in synchrony (Buck and Buck 1968); human interactants synchronizing gestures, facial expressions, speech patterns (Chartrand & Bargh 1999); and groups transitioning from random to synchronized clapping, etc. (Neda et al. 2000).

When we engage with music, we respond to its melodic and rhythmic properties with an array of entrainment behavior, both voluntary and involuntary, from subtle movements like tapping our fingers or feet, nodding our head, or slowly swaying back and forth, to more elaborate sequences of dance steps. Music—because it unfolds dynamically over time—invites this sort of ongoing engagement. We gear into various structural features of music (e.g., metrical and melodic patterning) by responding with movements that "fit" the dynamics of these musical cues.

To illustrate this idea, consider how movements appropriate for one style are wholly inappropriate for others. While the triple meter of the waltz, say, is not experienced as something that invites marching, a duple meter at the correct tempo establishes a different sort of entrainment context, one in which marching responses *do* feel more appropriate in that they naturally

lock into, and thus are guided by, the relevant musical dynamics (Windsor & Bézenac 2012, 113). The acoustic structure of the music as we experience it thus plays a significant role in determining the kinesthetics of our entrainment responses. Again, we don't simply move in response to music. We are *guided* by it; we take pleasure in getting into the “groove” with the music and letting it guide our actions and emotions (Janata et al. 2012).

Beyond gross bodily movements, however, music elicits and regulates more fine-grained modes of spontaneous motor entrainment, including facial expressions that induce the felt experience of emotions (recall Niedenthal 2007; Niedenthal & Maringer 2009). There is evidence that listening to music—including expressive, non-vocal music—elicits spontaneous facial mimicry mirroring the affective tone of the music (i.e., happy music elicits happy expressions, sad music sad expressions) (Lundqvist et al. 2009; Chan et al. 2013). Even preterm infants will entrain respiratory patterns, sucking, tongue and mouth protrusions, eye opening and closing, and vocalizations with the up and down movements of a melodic contour (Standley 2002; Krueger 2013a). As a consequence, within a musical context, they exhibit heightened equilibrium between endogenous and exogenous processes and increased stabilization of affect (DeNora 2000, 79). And by continuing to provide ongoing feedback, music serves as a real-time emotion regulator: the temporal structure and periodic modulations of the music (its melody, rhythm, volume, and intensity) as it unfolds regulate the form that our entrainment responses takes, and the emotional responses they generate (Windsor & de Bézenac 2012).²

The point of this survey is to indicate how, by manipulating our behavioral responses via entrainment, music manipulates our emotions by taking over what are normally subject-centered, endogenous processes of self-regulation. We “off-load” some of the work of regulating emotions onto musical dynamics, which in turn modulate and shape the phenomenology of our emotional responsiveness in an ongoing way. Can we speak of a similar emotional off-loading process occurring in instances of collective intentionality? And if so, how does this off-loading process lead to shared emotions? These are the questions I consider next.

4 EMOTIONAL OFF-LOADING: OTHER PEOPLE

The discussion above considered the possibility that some emotions—and the regulatory processes that are part of them—are distributed across both embodied as well as environmental processes. As a result, these environmental processes open up kinds of emotion experiences that might otherwise be inaccessible. For example, as the discussion in the previous section indicated, there may be certain emotions only accessible within a musical context. If emotion-regulative and emotion-generative processes are inextricable (Tomkins 1984; Frijda 1986), the *kind* of regulation employed will

have a direct impact on shaping the *phenomenology* of the regulated emotion experience.

If a similar off-loading process happens during instances of collective intentionality, however—that is, occasions where multiple subjects coordinate actions, intentions, and beliefs toward a common goal, and in so doing, open themselves up to the possibility of shared feelings and emotions—there will be an important difference. Environmental resources like music are not conscious subjects. But instances of collective intentionality do involve other subjects—centers of agency with their own first-person perspectives. Thus, if emotional off-loading occurs in some instances of collective intentionality, this suggests that we can share emotions with others in a way not possible in other instances of distributed self-regulation.

4.1 Shared Emotions

Some initial distinctions will be helpful. There are several ways an emotion might be shared. First, an emotion can be shared *expressively* via facial expressions, gestures, or verbal reports. When I wrinkle my nose, retch, and stick out my tongue after tasting some old milk, I share my disgust with my wife via these overt physical expressions. Second, emotions can be shared *contagiously*: they can “infect” multiple subjects, transferring from one to the next. If my disgust response is especially florid, my wife may respond in kind with similar facial expressions, wrinkling her nose and covering her mouth while developing her own rising feeling of stomach-churning nausea. Note that in both cases, however, the emotion remains tied to a single subject. The disgust I share via my wrinkled nose and retching is mine alone; my wife perceives it as such. She may subsequently “catch” my disgust response and develop her own disgust. But at that moment, while we have similar *types* of emotions, they remain numerically distinct *token* episodes.

There is a third sense of sharing, however, which connects back to the discussion in the previous sections. This sense refers to the way one and the same token of an emotion can be simultaneously shared by more than one subject. Call this a “collective emotion.” In cases of collective emotions, a token emotion extends across multiple subjects; here, one emotion is collectively realized by multiple participants. The possibility of collective emotions is philosophically intriguing because it challenges the common intuition that the ontology of emotions is such that they can only be realized by individuals.

While the idea of collective emotions faces some difficulties (Schmid 2009, 70; see also Salmela 2012), it is not wholly implausible. There are, for example, ontogenetic arguments one might give to support its occurrence in early infancy (Krueger 2013b; see also Feldman 2007; Tronick et al. 1998). But what about shared emotions in adulthood, when individuals develop the endogenous and self-regulatory capacities that infants clearly lack? Can we still speak of a token emotion being simultaneously shared by multiple

subjects? The phenomenologist Max Scheler thinks so, and he provides us with a case study: the shared grief felt by the parents of a recently deceased child.

4.2 Shared Emotions: Scheler on Grief

Here is how Scheler describes a shared emotion:

Two parents stand beside the dead body of a beloved child. They feel in common the ‘same’ sorrow, the ‘same’ anguish. It is not that A feels this sorrow and B feels it also, and moreover that they both know that they are feeling it. No, it is a *feeling-in-common*. A’s sorrow is in no way an ‘external’ matter for B here, as it is e.g. for their friend, C, who joins them and commiserates ‘with them’ or ‘upon their sorrow.’ On the contrary, they feel it together, in the sense that they feel and experience in common, not only the same value-situation, but also the same keenness of emotion in regard to it. The sorrow, as value content, and the grief, as characterizing the functional relation thereto, are here *one and identical*.

(Scheler 1954, 12f.)

Instead of claiming that each parent experiences a unique token episode of sorrow, Scheler suggests here a particularly acute instance of a collective emotion, an “[i]mmediate community of feeling, e.g., of one and the same sorrow, ‘with someone’” (Scheler 1954, 12). Unfortunately, Scheler does not give a detailed argument for this view.³ I want to continue the previous discussion and attempt to make the case for Scheler’s claim here by appealing to the notions of distributed self-regulation, emotional off-loading, and entrainment. This case is interesting because, unlike the music listening case, there are multiple temporal dimensions (both synchronic and diachronic) at work in the off-loading and entrainment shaping this collective emotion.

Consider how Scheler sets up this case.⁴ First, we are told that there is a synchronic *bodily and spatial intimacy* between the parents and their dead child. One can easily imagine the parents clinging to each other in a state of desperation, exchanging glances, caresses, whispers, and sobs, closely monitoring and responding to the other’s reactions—all while standing immediately next to their child’s corpse. Additionally, the child—as the object of their shared grief—is said to have been “beloved.” Along with the immediate (synchronic) bodily and spatial intimacy of this situation, we can plausibly assume both parents share what we might term a diachronic *narrative intimacy*—that is, the distinctive sort of familial intimacy that emerges over time from “pre-existing relations of marital love and marital life between the sharers of the feeling, as well as the relations of biological maternity, of care giving and of parental love to the object of the shared feeling” (Konzelmann Ziv 2009, 102). This narrative intimacy is comprised of an indefinite

number of shared experiences, memories, and associations that define the internal history unique to every family. When gazing at the corpse of their beloved child, both parents draw upon this common stock of family knowledge; since they share this narrative intimacy, the child will, as an object of their mutual grief, be experientially given in a similar way, that is, via a similar network of memories and associations (e.g., his first birthday, learning how to ride a bicycle, playing with his first pet, etc.). By standing in these privileged relations of (synchronic) bodily and (diachronic) narrative intimacy, then, the child’s parents—as they gaze down upon their beloved child—are affectively bound up with one another, *integrated*, on multiple levels and time-scales.

At the synchronic level, both parents experience ongoing sequences of physical feedback from the other in the form of clenched muscles, held hands, the feel of the other’s body wracked with quiet heaving, the sound of their weeping, etc. Each partner can thus directly feel the grief of the other embodied within their responses; they have direct perceptual and tactile access to this grief as it plays out across their partner’s bodily expressions (Krueger 2012). These grief responses will, in turn, feed back onto, permeate, and modulate that partner’s own responses and feeling states. In other words, the parent’s respective expressions of grief will become deeply *entrained* with one another.

There is ample empirical support for this idea. It is widely documented that social interaction rests on layers of behavioral entrainment, processes by which individuals spontaneously and involuntarily synchronize bodily movements, facial expressions, postures, gestures, instrumental behaviors, gaze patterns, and vocalizations with those whom they are interacting (Bernieri & Rosenthal 1991; Hatfield et al. 1994). One of the important psycho-social functions of interpersonal entrainment is to promote social cohesion, as well as deepened feelings of connectedness, rapport, and cooperation during joint tasks (Hove & Risen 2009; Valdesolo et al. 2010). Much like spontaneously entraining with music, entering into entrainment relations with other people seems to be something we are born poised and ready to do (Trevarthen 1979; Bernieri et al. 1988). Entrainment is thus said to be a key mechanism, the “social glue” facilitating interpersonal relations (Chartrand & Bargh 1999). The tactile dimension of entrainment (what I termed “bodily and spatial intimacy”) is especially important. Chatel-Goldman et al. (2014) found that touch alone is sufficient to facilitate physiological coupling—somatovisceral resonance (i.e., aligning of skin conductance responses, pulse, respiration, etc.)—between romantic partners.

What is crucial for this argument is that these forms of behavioral and physiological entrainment support the convergence of emotions and affect between interactants, which in turn intensifies their respective feelings of mutual understanding and connectedness (Lakin & Chartrand 2003). Moreover, while many—perhaps most—of our entrainment processes are involuntary, we can nevertheless exert some top-down control over our

entrainment responses, which in turn allows us to modulate the extent we “use” entrainment, so to speak, to share feelings and connect more or less deeply with others (Brass et al. 2005). For example, there is evidence that we selectively mimic others’ facial expressions depending upon the social context. We more readily mimic someone who is an in-group member (e.g., they share our political views) than an out-group member (Hess & Bourgeois & 2010; McHugo et al. 1991), and we are more likely to imitate the facial expressions and gestures of someone with a higher social status than we have, since that will likely increase their affection toward us (Cheng & Chartrand 2003).

To return to Scheler’s case: what I propose, then, is that given the high degree of synchronic and diachronic intimacy between the parents—their immediate bodily and spatial proximity (and subsequent entrainment responses), as well as their narrative history, including a wealth of similar memories suddenly welling up and framing how the child is given, experientially, as an object of their grief—both partners are poised to off-load part of their emotion-specific regulatory process onto the other in a way they wouldn’t with strangers or perhaps even other close family members (siblings, grandparents, cousins). This is surely part of what we mean when we speak of “leaning on” a partner during times of crisis, of making ourselves open and vulnerable to them and their responses. We can assume that each partner is especially vulnerable to interpersonally distributed regulation at this moment. Due to their all-consuming grief, their inhibitory resources will have been dramatically weakened to the point that they are, in a sense, reduced to a kind of infant-like state, highly vulnerable and responsive to environmental perturbations. Consider how easily someone in the midst of tremendous grief can be plunged even further into their suffering by a seemingly innocuous environmental trigger. In this case, each partner is perhaps even more open and vulnerable to being environmentally manipulated by the other—that is, led through their grief and its various expressions—than during other periods of their life together.

Although this is rather cold language, given the details of this case, we might nevertheless characterize the synchronic and diachronic integration of both partners as a two-way relation of “continuous reciprocal causation” (Clark 1997, p. 165). In this context, both partners will be highly attuned and responsive to the other: the mother’s grief expression will trigger a similar response in the father (via mimicry of facial expressions, gestures, postures, etc.), which will in turn modulate the mother’s further responses, which will redound back onto the father’s, etc. Their respective entrainment responses will thus bind both parents to one another in a kind of ongoing, mutually modulatory relation. The regulatory processes generating the collective grief are, in this context, distributed across both partners. Of course, each partner will offer their own idiosyncratic expressions of grief: one might be more overt, vocal, and florid; one more reserved. Each will nevertheless shape the expressions of the other, however; and this ongoing

exchange will in turn collectively lead both parents to articulate and experience a kind of grief profoundly informed and permeated by the presence of the other’s grief—a *shared* grief whose character articulates the specific regulatory input of both partners.

To return to an earlier point, if we grant that the *kind* of regulation employed will have a direct impact on generating and shaping the *phenomenology* of the regulated emotion experience, it follows that this episode will have a specific phenomenal character reflecting the mutual regulatory input of both parents. In other words, the phenomenology of this grief will be jointly constructed—that is, shared—in that it reflects the synchronic and diachronic entrainment of both parents, jointly standing in relation to a common emotional object (i.e., their child). It is thus a kind of shared or collective grief that can be generated only when specific sorts of relations are obtained: namely, the deep integration, supported by (synchronic) bodily and (diachronic) narrative entrainment, that is uniquely possible within this unusually intense context.

5 FINAL THOUGHTS

These observations alone are not sufficient to make the case for collective emotions, of course, but they do render the idea more plausible than might initially appear. Moreover, the possibility of collectively constructed emotions is potentially of interest to other debates.⁵ Not only does it reinforce the idea that affectivity and emotions ought to play a prominent role in ongoing discussions of collective intentionality, it challenges the individualism informing most approaches to emotions, according to which emotions are, in principle, the sort of things given to or entertained by single subjects. It motivates a move away from thinking of emotions as discrete intracranial *states* toward a situated, multidimensional, and relational account of emotions as (potentially distributed) *processes*. This is a view with significant phenomenological and ontological implications, one which also seems to affirm the extent to which we are bound up with, and rely upon, one another when it comes to realizing central features of our emotional lives.

NOTES

- 1 Although this is starting to change: see, for example, the essays in von Scheve and Salmela (2014).
- 2 Our musically regulated emotions are also supported by the entrainment of sensorimotor processes at the neural level (Nozaradan et al. forthcoming; Overy & Molnar-Szakacs 2009).
- 3 But see the chapters in this volume by Vendrell Ferran and Szanto, respectively, for further attempts to clarify Scheler on collective personhood and affectivity.

- 4 While developing this reading of Scheler, I belatedly discovered Anita Konzelmann Ziv's (2009) discussion, which brings out a number of very similar points. I incorporated several of her insights into this discussion.
- 5 See Krueger (2014a) for further discussion.

REFERENCES

- Bennett, Matthew, Schatz, Matthew F., Rockwood, Heidi, & Wiesenfeld, Kurt (2002). "Huygens's Clocks." *Proceedings of the Royal Society of London. Series A: Mathematical, Physical and Engineering Sciences* 458 (2019), 563–79.
- Bernieri, Frank J., & Rosenthal, Robert (1991). "Interpersonal Coordination: Behavior Matching and Interactional Synchrony." In: R. S. Feldman, & B. Rime (Eds.). *Fundamentals of Nonverbal Behavior*. Cambridge: Cambridge University Press, 401–432.
- Bernieri, Frank J., Reznick, J. Steven, & Rosenthal, Robert (1988). "Synchrony, Pseudosynchrony, and Dissynchrony: Measuring the Entrainment Process in Mother-Infant Interactions." *Journal of Personality and Social Psychology* 54 (2), 243–253.
- Bourgeois, Patrick, & Hess, Ursula (2008). "The Impact of Social Context on Mimicry." *Biological Psychology* 77 (3), 343–352.
- Brass, Marcel, Derrfuss, Jan, & Von Cramon, Yves D. (2005). "The Inhibition of Imitative and Overlearned Responses: A Functional Double Dissociation." *Neuropsychologia* 43 (1), 89–98.
- Buck, John, & Buck, Elisabeth (1968). "Mechanism of Rhythmic Synchronous Flashing of Fireflies. Fireflies of Southeast Asia May Use Anticipatory Time-Measuring in Synchronizing Their Flashing." *Science (New York, N.Y.)* 159 (3821), 1319–1327.
- Chan, Lisa P., Livingstone, Steven R., & Russo, Frank A. (2013). "Facial Mimicry in Response to Song." *Music Perception: An Interdisciplinary Journal* 30 (4), 361–367.
- Chartrand, Tanya, & Bargh, John A. (1999). "The Chameleon Effect: The Perception-Behavior Link and Social Interaction." *Journal of Personality and Social Psychology* 76 (6), 893–910.
- Chatel-Goldman, Jonas, Congedo, Marco, Jutten, Christian, & Schwartz, Jean-Luc (2014). "Touch Increases Autonomic Coupling Between Romantic Partners." *Frontiers in Behavioral Neuroscience* 8 (95), 1–12.
- Cheng, Clara Michelle, & Chartrand, Tanya L. (2003). "Self-Monitoring Without Awareness: Using Mimicry as a Nonconscious Affiliation Strategy." *Journal of Personality and Social Psychology* 85 (6), 1170–1179.
- Clark, Andy (1997). *Being There: Putting Brain, Body and World Together Again*. Cambridge, MA/London: MIT Press.
- Collins, Randall (2004). *Interaction Ritual Chains*. Princeton, NJ: Princeton University Press.
- DeNora, Tia (2000). *Music in Everyday Life*. Cambridge: Cambridge University Press.
- Duclos, Sandra E., & Laird, James D. (2001). "The Deliberate Control of Emotional Experience through Control of Expressions." *Cognition & Emotion* 15 (1), 27–56.
- Ekman, Paul (1965). "Differential Communication of Affect by Head and Body Cues." *Journal of Personality and Social Psychology* 2 (5), 726–35.
- Feldman, Ruth (2007). "On the Origins of Background Emotions: From Affect Synchrony to Symbolic Expression." *Emotion* 7 (3), 601–11.

- Frijda, Nico H. (1986). *The Emotions*. Cambridge: Cambridge University Press.
- Gross, James J. (1998). "The Emerging Field of Emotion Regulation: An Integrative Review." *Review of General Psychology* 2 (3), 271–99.
- (1999). "Emotion Regulation: Past, Present, Future." *Cognition & Emotion* 13 (5), 551–573.
- Hatfield, Elaine, Cacioppo, John T., & Rapson, Richard L. (1994). *Emotional Contagion*. Cambridge: Cambridge University Press.
- Hess, Ursula, & Bourgeois, Patrick (2010). "You smile—I smile: Emotion expression in social interaction." *Biological psychology* 84 (3), 514–520.
- Hove, Michael J., & Risen, Jane L. (2009). "It's All in the Timing: Interpersonal Synchrony Increases Affiliation." *Social Cognition* 27 (6), 949–960.
- Izard, Carroll E. (1974). "Emotions, Human." *Encyclopedia Britannica*, Vol. 18, 248–256.
- Janata, Petr, Tomic, Stefan T., & Haberman, Jason M. (2012). "Sensorimotor Coupling in Music and the Psychology of the Groove." *Journal of Experimental Psychology: General* 141 (1), 54–75.
- Juslin, Patrik N., & Laukka, Petri (2004). "Expression, Perception, and Induction of Musical Emotions: A Review and a Questionnaire Study of Everyday Listening." *Journal of New Music Research* 33 (3), 217–238.
- Konzelmann Ziv, Anita (2009). "The Semantics of Shared Emotion." *Universitas Philosophica* 59, 81–106.
- Krueger, Joel (2009). "Enacting Musical Experience." *Journal of Consciousness Studies* 16 (2–3), 98–123.
- (2011). "Enacting Musical Content." In: R. Manzotti (Ed.). *Situated Aesthetics: Art Beyond the Skin*. Exeter: Imprint Academic, 63–85.
- (2012). "Seeing Mind in Action." *Phenomenology and the Cognitive Sciences* 11 (2), 149–173.
- (2013a). "Empathy, Enaction, and Shared Musical Experience: Evidence from Infant Cognition." In T. Cochrane, B. Fantini, & K. Scherer (Eds.). *The Emotional Power of Music: Multidisciplinary Perspectives on Musical Expression, Arousal, and Social Control*. Oxford: Oxford University Press, 177–196.
- (2013b). "Merleau-Ponty on Shared Emotions and the Joint Ownership Thesis." *Continental Philosophy Review* 46 (4), 509–531.
- (2014a). "Affordances and the Musically Extended Mind." *Frontiers in Psychology* 4 (1003), 1–13.
- (2014b). "Varieties of Extended Emotions." *Phenomenology and the Cognitive Sciences* 13 (4), 533–555.
- Lakin, Jessica L., & Chartrand, Tanya L. (2003). "Using Nonconscious Behavioral Mimicry to Create Affiliation and Rapport." *Psychological Science* 14 (4), 334–339.
- LeDoux, Joseph E. (1996). *The Emotional Brain*. New York: Simon and Shuster.
- Levenson, Robert, Ekman, Paul, & Friesen, Wallace V. (1990). "Voluntary Facial Action Generates Emotion-Specific Autonomic Nervous System Activity." *Psychophysiology* 27 (4), 363–84.
- Lundqvist, Lars-Olov, Carlsson, Fredrik, Hilmersson, Per, & Juslin, Patrik N. (2009). "Emotional Responses to Music: Experience, Expression, and Physiology." *Psychology of Music* 37 (1), 61–90.
- Marzoli, Daniele, Custodero, Mariagrazia, Pagliara, Alessandra, & Tommasi, Luca (2013). "Sun-Induced Frowning Fosters Aggressive Feelings." *Cognition & Emotion* 27 (8), 1513–1521.
- McHugo, Gregory J., Lanzetta, John T., & Bush, Lauren K. (1991). "The Effect of Attitudes on Emotional Reactions to Expressive Displays of Political Leaders." *Journal of Nonverbal Behavior* 15, 19–41.

- Merleau-Ponty, Maurice (1964). "The Child's Relations with Others." In J. Edie (Ed.). *The Primacy of Perception*. Evanston: Northwestern University Press, 96–155.
- Néda, Z., Ravasz, E., Brechet, Y., Vicsek, T., & Barabási, A.-L. (2000). "Self-Organizing Processes: The Sound of Many Hands Clapping." *Nature* 403 (6772), 849–850.
- Niedenthal, Paula M. (2007). "Embodying Emotion." *Science* 316 (5827), 1002–1005.
- Niedenthal, Paula M., & Maringer, Marcus (2009). "Embodied Emotion Considered." *Emotion Review* 1 (2), 122–128.
- Nozaradan, Sylvie, Zerouali, Younes, Peretz, Isabelle, & Mouraux, Andre (forthcoming). "Capturing with EEG the Neural Entrainment and Coupling Underlying Sensorimotor Synchronization to the Beat." *Cerebral Cortex*.
- Ohira, Hideki, & Kurono, Kiyomi (1993). "Facial Feedback Effects on Impression Formation." *Perceptual and Motor Skills* 77, 1251–1258.
- Overy, Katie, & Molnar-Szakacs, Istvan (2009). "Being Together in Time: Musical Experience and the Mirror Neuron System." *Music Perception: An Interdisciplinary Journal* 26 (5), 489–504.
- Panksepp, Jaak (1992). *Affective Neurology*. Oxford: Oxford University Press.
- Parkinson, Brian (1995). *Ideas and Realities of Emotion*. London/New York: Routledge.
- Rimé, Bernard (2007). "The Social Sharing of Emotion as an Interface Between Individual and Collective Processes in the Construction of Emotional Climates." *Journal of Social Issues* 63 (2), 307–322.
- Salmela, Mikko (2012). "Shared Emotions." *Philosophical Explorations* 15 (1), 33–46.
- Salomons, Tim V., Coan, James A., Hunt, Matthew, Backonja, Misha-Miroslav, & Davidson, Richard J. (2008). "Voluntary Facial Displays of Pain Increase Suffering in Response to Nociceptive Stimulation." *The Journal of Pain* 9 (5), 443–448.
- Scheler, Max (1954). *The Nature of Sympathy*. Transl. by P. Heath. London: Routledge and Kegan Paul.
- Schmid, Hans Bernhard (2009). *Plural Action: Essays in Philosophy and Social Science*. Dordrecht: Springer.
- Smith, Eliot R., Seger, Charles R., & Mackie, Diane M. (2007). "Can Emotions Be Truly Group Level? Evidence Regarding Four Conceptual Criteria." *Journal of Personality and Social Psychology* 93 (3), 431–46.
- Standley, Jayne M. (2002). "A Meta-Analysis of the Efficacy of Music Therapy for Premature Infants." *Journal of Pediatric Nursing* 17 (2), 107–113.
- Strack, Fritz, Martin, Leonard L., & Stepper, Sabine (1988). "Inhibiting and Facilitating Conditions of the Human Smile: A Nonobtrusive Test of the Facial Feedback Hypothesis." *Journal of Personality and Social Psychology* 54 (5), 768–777.
- Szanto, Thomas (in this volume). "Collectivizing Persons and Personifying Collectives: Reassessing Scheler on Group Personhood." In: T. Szanto, & D. Moran (Eds.). *The Phenomenology of Sociality: Discovering the 'We'*. London/New York: Routledge.
- Thompson, Ross A. (1994). "Emotion Regulation: A Theme in Search of Definition." *Monographs of the Society for Research in Child Development* 59 (2–3), 25–52.
- Tomkins, Silvan S. (1984). "Affect Theory." In: P. Ekman (Ed.). *Emotion in the Human Face*. Cambridge: Cambridge University Press, 353–395.
- Trevarthen, Colwyn (1979). "Communication and Cooperation in Early Infancy: A Description of Primary Intersubjectivity." In M. Bullowa (Ed.). *Before Speech: The Beginning of Interpersonal Communication*. Cambridge: Cambridge University Press, 321–347.

- Tronick, Edward Z., Bruschweiler-Stern, Nadia, Harrison, Alexandra M., Lyons-Ruth, Karlen, Morgan, Alexander C., Nahum, Jeremy P., Sander, Louis, & Stern, Daniel N. (1998). “Dyadically Expanded States of Consciousness and the Process of Therapeutic Change.” *Infant Mental Health Journal* 19 (3), 290–299.
- Valdesolo, Piercarlo, Ouyang, Jennifer, & DeSteno, David. (2010). “The Rhythm of Joint Action: Synchrony Promotes Cooperative Ability.” *Journal of Experimental Social Psychology* 46 (4), 693–695.
- Vendrell Ferran, Íngrid (in this volume). “Affective Intentionality: Early Phenomenological Contributions to a New Phenomenological Sociology”. In: T. Szanto, & D. Moran (Eds.). *The Phenomenology of Sociality: Discovering the ‘We’*. London/New York: Routledge.
- von Scheve, Christian, & Ismer, Sven (2013). “Towards a Theory of Collective Emotions.” *Emotion Review* 5 (4), 406–413.
- von Scheve, Christian, & Salmela, Mikko (2014). *Collective Emotions*. Oxford: Oxford University Press.
- Will, Udo, & Turrow, Gabe (2011). “Introduction to Entrainment and Cognitive Ethnomusicology.” In: J. Berger, & P.G. Turrow (Eds.). *Music, Science, and the Rhythmic Brain: Cultural and Clinical Implications*. London/New York: Routledge, 3–30.
- Windsor, W. Luke, & de Bézenac, Christophe (2012). “Music and Affordances.” *Musicae Scientiae* 16 (1), 102–120.