GROUP NORMS IN VIRTUAL WORK: NEW DIRECTIONS

Presenter Symposium Proposal
Submission Number: 15106

Submitted to
Organizational Communications and Information Systems (OCIS)
Organizational Behavior (OB)
Human Resources (HR)
at the
2016 Academy of Management Annual Meeting, Anaheim, California

Co-chairs

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Presentations

Norms for Informal Communication in Virtual Multicultural Globally Distributed Teams
Ella Glikson & Miriam Erez
Technion – Israel Institute of Technology

Cooperative and Competitive Group Norms in Virtual Teams
Julia E. Hoch, California State University

The Role of Team Cultural Orientation and Virtuality in Shaping
Team Norm Clarity and its Outcomes
Young Hun Ji & N. Sharon Hill, The George Washington University

Status Effects on Reactions to Communication Norm Violations
Carolyn Axtell, The University of Sheffield
Karin S Moser, London South Bank University

Reciprocity Norms in Online Knowledge Sharing: A Conceptual Analysis
Philip Fei Wu, University of London
Jennifer J. Preece, University of Maryland

Integrative Discussion Lead

Miriam Erez, Technion – Israel Institute of Technology

Participant Details

"As the symposium organizers, we certify that all participants have stated that they agree to participate in this symposium, if it is accepted, and that they are not in violation of the Rule of Three + Three."

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GROUP NORMS IN VIRTUAL WORK: NEW DIRECTIONS

ABSTRACT

Despite the increasing implementation of virtual work arrangements (e.g., global virtual teams, online communities, technology-mediated collaboration) in modern organizations, virtuality (i.e., reliance on technology rather than face-to-face communication) can pose many potential challenges to effective group functioning and outcomes. Although, researchers have recognized the importance of having clear and shared group norms for behavior in order to facilitate more effective virtual work, this research area remains relatively underdeveloped. In this symposium, we convene an international group of researchers whose work extends this critical, but still nascent, research domain. The papers include both theoretical as well as lab and field empirical studies that examine how different types of group norms or norm-related constructs work in conjunction with virtuality to impact important dynamics and outcomes in different types of virtual work environments. Collectively, the studies offer significant research extensions and new directions for understanding the role of group norms in facilitating effective virtual work.

Key words:

OCIS: 1. Collaboration (incl. e-collaboration)
2. Computer-mediated group interaction
3. Virtual/distributed teams

OB: 1. Groups/Group Processes
2. Teams/Teamwork
3. Interpersonal/Relational Processes

HR: 1. HR practices and group productivity
2. Facets of Performance
3. Cross-Cultural HR

GROUP NORMS IN VIRTUAL WORK: NEW DIRECTIONS

Symposium Overview

Modern organizations are making extensive use of virtual work arrangements in which individuals interact primarily using technology. However, in spite of their ubiquity and potential advantages, existing research has shown that virtual work arrangements create persistent challenges that can hinder effective collaboration and work outcomes (e.g., Gilson et al, 2015). In particular, virtuality creates a relatively anonymous and 'out of sight' environment with fewer situational cues, resulting in greater susceptibility to misunderstandings and process losses compared to face-to-face group interactions (Cramton, 2001). Given this, research is needed to provide insights into how to overcome the ambiguities and consequent process challenges associated with virtual work.

In this symposium, we shine a light on group norms, as an important factor that might facilitate more effective virtual work. Group norms are shared expectations for behavior that can heavily shape how members coordinate their activities and interact with others. Thus, while clear and shared norms are critical to success in all groups, they play a particularly pivotal role as mechanisms for uncertainty-reduction and behavioral control in virtual work environments (Leifer & Mills, 1996), which are more de-individuated and prone to ambiguity (Moser & Axtell, 2013). Although researchers have acknowledged the importance of group norms in virtual work, the intersection between the group norm and virtual work research domains is an area that has remained relatively underexplored (Moser & Axtell, 2013). The purpose of this symposium is to present research that offers new directions to stimulate further thinking in this compelling research arena. More specifically, the set of papers included in this symposium collectively

examine novel questions related to how group norms operate in conjunction with virtuality to impact important work dynamics and outcomes. They include both theoretical and empirical research that addresses different types of norms and norm-related constructs in a variety of different virtual work environments.

The symposium includes five paper presentations. The first two papers focus on specific types of norms in virtual teams to understand how they influence performance in those teams. In the first paper, Glikson and Erez present a longitudinal study that focus on norms for informal communication and their importance for multicultural, globally distributed, virtual teams. In their study, the authors examine the impact of informal communication norms on virtual team members' cross-understanding, and in turn, their performance.

In the second paper, Hoch draws upon the expectancy x value framework to develop theory and hypotheses related to the differential impacts of collaborative and competitive norms on virtual team performance. Hoch also hypothesizes interactive effects between virtuality and each type of team norm (i.e., collaborative and competitive) on team performance. In her paper, Hoch presents preliminary findings from two studies utilizing lab and field experiment designs.

The next two papers further highlight the importance of norms in virtual work, but with a stronger focus on the negative consequences that arise from a lack of clear norms and from norm violations. In addition, they identify factors that may exacerbate those negative effects. In the third paper, Ji and Hill empirically examine the antecedents and outcomes of team norm clarity (i.e., the extent to which norms for behavior are clear and shared among team members) in project teams utilizing varying degrees of technology-mediated communication. In their study, the authors first identify team collectivism and uncertainty avoidance as antecedents of team

norm clarity. They then demonstrate the interactive effects of virtuality and team norm clarity on relationship conflict, and ultimately, team performance.

In the fourth paper, Axtell and Moser investigate factors that impact the severity of negative reactions to norm violations in e-mail communications. Specifically, the authors draw upon Social Identity Theory to theorize how status (high vs. low) and group membership (in-group vs. out-group) influence people's reactions to violations of communication norms by others. They present findings from two empirical studies utilizing experimental research designs.

In the final paper, Wu and Preece shift the focus to online communities, focusing on reciprocity norms in technology-mediated environments. In their theory paper, the authors highlight the distinctions between 'benefactor-oriented' versus 'beneficiary-oriented' conceptualizations of reciprocity norms. They explain that, while the prospect of repayment can indeed motivate benefactors to make contributions to the group, the key to fostering powerful, long-term reciprocity norms in online environments lies in creating a sense of 'indebtedness' on the part of beneficiaries. The authors then proceed to provide practical/managerial suggestions on how to guide beneficiaries' sense of indebtedness to promote greater reciprocity norms.

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RELEVANCE TO THE OCIS, OB, AND HR DIVISONS OF ACADEMY

We are submitting our symposium to three Academy Divisions: OCIS, OB and HR. Each of these divisions encompasses research areas related to virtual work and group norms. First, this symposium should be of direct interest to OCIS members as its primary context of investigation involves technology-mediated communication that facilitates virtual work. Moreover, several of the symposium papers focus specifically on norms surrounding communication behaviors, and, accordingly, draw upon and extend theories from the field of communication.

Second, we are also submitting the symposium to the OB division because the field of organizational behavior is concerned with factors that affect team dynamics, processes, and performance. Our symposium shines light on the intersection of two such factors within the OB research domain—virtuality and group norms. Previous OB studies have highlighted both the challenges of virtuality and the importance of team norms for effective collaboration. The set of papers in our symposium aims to further our understanding of these ideas by exploring novel perspectives on the conceptualization, emergence, and consequences of various group norms and norm-related constructs in a virtual context. Therefore, the symposium is in line with the interests of the OB division.

Third, we are submitting to the HR division because of this division's focus on improving the management and performance of human resources in work organizations. The relationships examined in the papers have important implications for organizations aiming to enhance the performance and well-being of their employees who collaborate with others via technology-mediated communication. The discussion of how some individuals may leverage certain group norms to mitigate the potentially negative effects of virtual work should also have implications for research related to selecting, training, and providing support to virtual workers globally.

PROPOSED FORMAT OF SYMPOSIUM

We propose a 90 minute symposium. After a brief introduction (five minutes), each of the five presentations will take approximately 12 minutes. The remaining time (approximately 25 minutes) will be allotted for questions and/or commentary from the audience to draw out points of integration and implications arising from the set of papers. This interactive and integrative discussion is an important component of the symposium. Miriam Erez, an expert in the theme of this symposium, will kick-off this discussion by highlighting important points of integration across the presentations, as well as future directions for research on virtual work and group norms.

NORMS FOR INFORMAL COMMUNICATION IN VIRTUAL MULTICULTURAL GLOBALLY DISTRIBUTED TEAMS

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Virtual multicultural globally distributed teams (VMTs) have become an integral part of current organizations (Connaughton & Shuffler, 2007), and are characterized by high dependence on electronic communication, geographic distribution and cross-cultural differences. These characteristics pose many challenges to effective work in this type of team, and especially to the cross-understanding among VMT members (Cramton & Hinds, 2004).

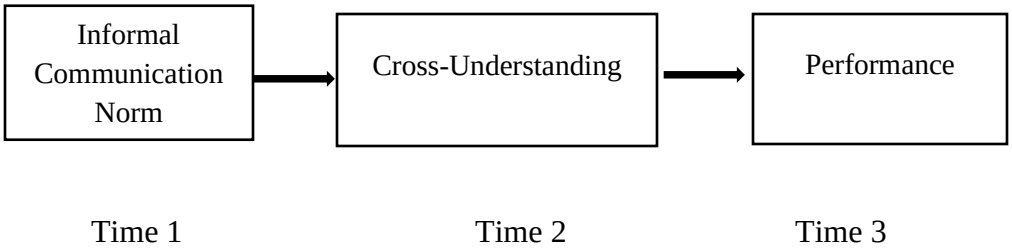
Research on team communication has paid special attention to the way the task is discussed and interpreted (Woolley, 2009) and the importance of team members' common understanding of the task (Lindenberg & Foss, 2011; Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000). However, the dynamic nature of short-term VMTs suggests that many virtual teams are formed by members with no prior familiarity, and no ability to meet face-to-face (Gibson, Huang, Kirkman, & Shapiro, 2014). These conditions require a special effort to create social ties and trust, which are essential to cross-understanding in cross-cultural and virtual environments (Chua, Morris, & Mor, 2012; Jarvenpaa, Shaw, & Staples, 2004).

While task related issues can be discussed in a formal and informal manner (Hinds & Mortensen, 2005), social interactions are characterized as informal communications. Past research has argued for the importance of informal communication, suggesting that this type of interaction helps to build social bonds, and enables better information flow and can compensation for loss of meaning introduced by the use of mediating technologies (Kiesler & Cummings 2002; Kraut, Fussell, Brennan, & Seigel, 2002; Sarbaugh-Thompson & Feldman, 1998; Zack, 1993). For example, Hinds and Mortensen (2005) showed that spontaneous

communication, defined as informal, unplanned interactions among team members, contributed to teams' shared context and shared identity, and lowered the conflict level.

However, this line of research has rarely addressed the aspects of individual normative beliefs regarding informal communication. These beliefs might explain the behavioral patterns which develop in teams, and especially the way cross-understanding emerges overtime time. Following, the research on the benefits of informal communication, we suggest that individual beliefs regarding the normativity of informal communication in newly established global virtual teams will facilitate trust and cross-understanding among team members and as a result contribute to individual performance in the team.

Table 1. Theoretical Model



To test our hypothesis we conducted a longitudinal study and collected data from 186 MBA students have participated in the Technion Multicultural Teams Project. The participants studied in six business schools and were randomly assigned to 3-4 member multicultural teams. Prior to the beginning of the multicultural team project (T1) we collected data on participants' communication norm beliefs (formal and informal) and several demographic parameters. In the second phase (T2) we asked participants to assess the level of cross-understanding in their team. In the third phase (T3) we asked the participants to evaluate each other's performance.

We assessed all variables on a 5-point Liker style scale. Communication norm beliefs were assessed by questions on the appropriateness of formal and informal content in newly established VMT - "To what extent do you agree with the following statements regarding the way people should communicate with each other within a newly established virtual multicultural working team. The communication should be formal, task oriented, professional" (Norm for formal communication, $\alpha = .71$), informal, friendly and "ice-breaking" (Norm for informal communication, $\alpha = .74$; EFA indicated two factors (Eigenvalue = 1.51).

Task related cross-understanding was measured using 3 items based on Huber & Lewis, 2010; ex.: "Overall, members of my team have an accurate understanding about what other members know and think, regarding the team's tasks". The performance of each team member was evaluated by the other team members who reported on the amount and quality of the focal team member's contribution to the task.

We used bootstrapping analysis of mediation model by Hayes, (2013; Model 4) to test our hypothesis. The results demonstrated a significant indirect effect of informal norms on performance through the mediation of cross-understanding CI 95% = .008, LL-HL [.005; .021].

The model remained significant when norm for formal communication was introduced as a covariate. The results confirmed our hypothesis on the contribution of informal communication norm to cross-understanding and performance in VMTs.

In this study we showed that the initial norm for informal communication hold by VMT members contributes to the emergence of cross-understanding, which is highly difficult to establish in geographically distributed and culturally diverse teams. Contrary to the literature that emphasizes task-oriented, formal communication and performance (Woolley, 2009), the current

research suggests that performance in VMTs relates to the openness to informal way of communication.

Our results are consistent with prior research on the impact of informal communication to the social processes in VMTs (Hinds & Mortensen, 2005). We contribute to this line of research by examining the relations between informal norms and the perceptions of understanding the other team members in the team. In addition, focusing on the relations between normative beliefs that team members bring to their newly established VMT and cross-understanding, we contribute to the understanding of antecedences and of the emergent process of cross-understanding.

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COOPERATIVE AND COMPETITIVE GROUP NORMS IN VIRTUAL TEAMS

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Virtual teams (VTs) describe teams where members work across distance and use various communication media, instead of face to face contact. Virtual teams pose new demands for employees and managers in organizations. Most of the research on virtual teams so far has emphasized its effects on the cognitive processes, effects of communication media on communication processes, and how these impact idea generation (Fjemerstad & Hiltz, 1998, 2000), or leadership (Brown & Gioia, 2002; Shamir, 1999). However, far less research has examined motivational processes in virtual teams.

Team virtuality can have both, positive and negative effects on team members' work motivation. For example, anonymity and lack of social control in virtual teams (Lea & Spears, 1991; Spears & Lea, 1990) can lead to motivation losses through social loafing (Latane, Williams & Harkins, 1979) or de-individuation (Diener, 1979). Furthermore, effects of social facilitation (Baron, 1986) are less likely when team members work at different work sites.

Furthermore, virtual teams often report less interpersonal trust and commitment than face-to-face teams (Bouas & Arrow, 1996; Jarvenpaa & Leidner, 1998). Finally, while motivation gains through cooperative and competitive group norms has been repeatedly documented in face to face teams (Johnson & Johnson, 1989; Stanne, et al., 1999), little research has examined the role of these group norms in virtual teams. We expect that examining the role of group norms will facilitate better understanding of motivational processes in virtual teams.

Expectancy x Value Models in Virtual Teams. Motivational processes in virtual teams can be explained with the expectancy-value model (Heckhausen, 1977; Porter & Lawler, 1968; Vroom, 1964). The general assumption of expectancy x value models is that motivation towards reaching a goal is comprised of three components: subjective valence (or importance) of the goal, the subjective perception of the chance of successfully accomplishing the goal, and the subjective perception of the value of the outcomes. The role of expectancy x value models to explain individual and team motivation has been increasing (Karau & Williams, 2001).

More recently, the role of "social dilemmas" (Pruitt & Kimmel 1977) was considered when applying these models to explaining motivational processes in teams (as opposed to individual work). The Collective-Effort-Model (CEM, Karau & Williams, 2001) extends the role of expectancy x value models to explain motivational processes from individual work to team level, by emphasizing the role of instrumentality. In their extension of classical expectancy x value models they aim to address the three different combinations of relationships of individual effort and group effort: group effort and consequences for the group, and consequences for the group and individual consequences (Karau & Williams, 1993; 2001).

In addition to expectancy x value processes, which are collectively motivated, motivation gains in groups can also be explained through social comparison processes. Social comparison processes also include social competition (Festinger, 1954; Seta, 1982), impression management (Goffman, 1959; Tedeschi, et al., 1971) and performance matching (Jackson & Harkins, 1985). According to the social comparison theory (Festinger, 1954), people have a need to compare their capabilities and attitudes with those of others. While people tend to align their attitudes with those of others, in respect to performance and work effort this is not always the case. In regards to performance, people may either adjust their performance to those of others, or they may

compete and try to exceed those of others (social competition), or they may engage in social loafing (Latane, et al., 1979; Williams, et al., 1981; Williams & Karau, 1991) and thus, try to perform less (but still gain the same outcome).

Jackson and Harkins (1985) documented that group members perform better when working with a more motivated partner in cooperative teams. Van Leeuwen und Van Knippenberg (2002) documented similar results and referred to the phenomenon as 'social matching'. However, other studies, such as Weinstein & Holzbach (1973) document higher performance and motivation under competitive norms than in cooperation. Together, it is expected that the role of group norms will explain motivational processes in virtual teams.

Competitive norms embody equity norms and emphasize performance differences among team members, typically rewarding individuals with high performance and/or imposing sanctions on those with low performance (Beersma et al., 2003). Therefore, some believe that competition promotes motivation because it stimulates individuals to outperform each other by working faster, or "smarter," or cheaper, and the belief is that this will serve the long-term needs of their organization. Applying the expectancy x value approach, we expect that in VTs with competitive norms, members will place less value on the collective group goal, and thus be less motivated to work towards accomplishing the goal. Team members will be less motivated and, as a consequence, put less effort towards goal accomplishment in VTs with competitive team norms.

Hypothesis 1: Teams with competitive team norms will have lower performance than teams with no clear team norms.

Cooperative norms embody equality norms and emphasize group accomplishments. Cooperative norms emphasize the similarity among the members, and minimize the differences,

among group members, such as in respect to abilities, because these distinctions may impede teamwork, information sharing, and helping. In applying the expectancy x value approach, we expect that in VTs with cooperative norms, team members will place more value on the collective group goal, and thus be more motivated to work towards accomplishing the goal. Team members will be more motivated and, as a consequence, put more effort towards goal accomplishment in VTs with competitive team norms.

Hypothesis 2: Teams with cooperative team norms will have higher performance than teams with no clear team norms.

Researchers on VTs state that VTs face several motivational disadvantages compared to face-to-face (FTF) teams (e.g., Bell & Kozlowski, 2002; Hoch & Kozlowski, 2014; Hinds & Kiesler, 2002). They argue that VTs need more structural support than their FTF counterparts. A recent study by Hoch and Kozlowski (2004) documented the importance of structural support mechanisms in virtual teams, in empirical research. Their study found that structural support mechanisms were more strongly related to the outcome of team performance in more virtual teams as opposed to less virtual teams.

Norms, that is, team or group norms, constitute an important structural support mechanism. Based on the previous findings on structural support mechanisms, for example Hoch and Kozlowski, 2004, it is realistic to expect that the effects of team norms (cooperative and competitive) will be enhanced in more virtual teams as opposed to less virtual teams. Consequently, we expect that team virtuality is a moderator of the relationship between team norms and team outcomes, such that the effects of both team norms will be intensified in the more virtual teams than as opposed to in the less virtual teams. We expect:

Hypothesis 3: Team virtuality will moderate the relationship between both group norms and VT motivation, such that the relationship between each group norm with VT motivation is stronger in more virtual teams than in less virtual teams.

METHODS

Two studies were conducted to test the above hypotheses. In the first study, the described relationships were examined in a sample of 256 student individuals (27 of which had > 30% missing data, thus 229 complete data) in a series of lab experiments. They were assigned to virtual/non virtual teams, working under conditions of cooperative/competitive team norms. This is a 2 x 2 design, with 4 different conditions, and there were 57 students per condition.

In the second study, we examined the role of cooperative team norms in a field experiment. We were not able to test the effects of competitive team norms in the settings of the field samples that we had chosen, due to the phrasing of the items in our questionnaire. The second study only tested H1 and H3, and we did not test H2 in this sample.

PRELIMINARY RESULTS

Overall, we found that in line with three recent meta-analyses (Johnson, Maruyama, Johnson, Nelson & Skon, 1981; Johnson & Johnson, 1989; Stanne et al., 1999), the effects of cooperative team norms are more positive than competitive team norms, and they lead to higher levels of team performance and generally more positive team outcomes. We are currently still in the process of investigating the role of team virtuality on this relationship. Results from preliminary analyses will be completed at the time of the conference.

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THE ROLE OF TEAM CULTURAL ORIENTATION AND VIRTUALITY IN SHAPING TEAM NORM CLARITY AND ITS OUTCOMES

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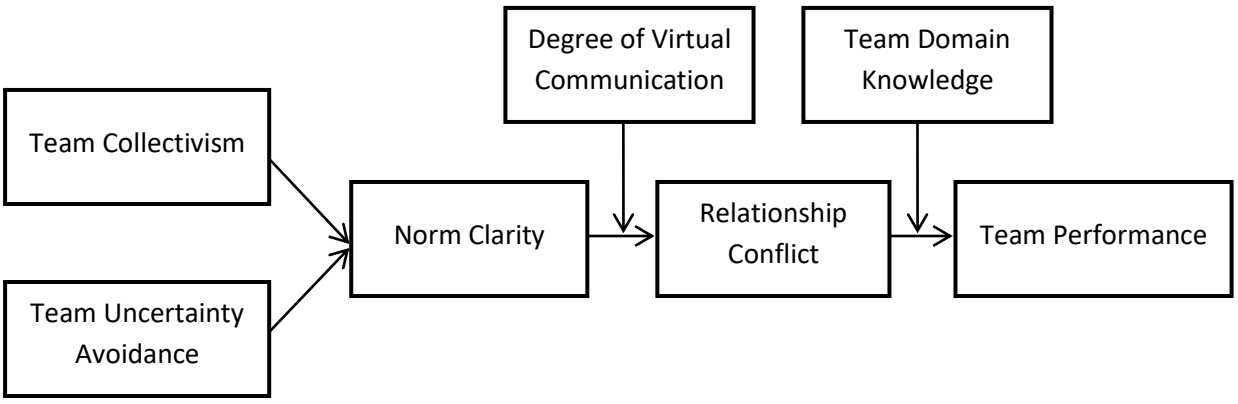
Today, many important teamwork trends such as collaborating globally and increased reliance on virtual communication (i.e., use of technology rather than face-to-face), introduce challenges that have the potential to impair the social processes that smooth team functioning, resulting in higher levels of dysfunctional relationship conflict (e.g., Hinds & Mortensen, 2005). Relationship conflict involves non-task-related disagreements among team members about interpersonal issues, including differences in norms and values. Past research generally supports the notion that relationship conflict can be detrimental to team performance (de Wit, Greer, & Jehn (2012). However, there is evidence that having norms for behavior that are clear and shared among team members, which we refer to in this study as team norm clarity (Wageman, Hackman, & Lehman, 2005), is one effective mechanism for reducing interpersonal tensions in a team (for a review, see Moser & Axtell, 2013).

Although researchers generally recognize the potential for team norm clarity to reduce relationship conflict, leading to better team performance, there is still relatively little empirical research in this area. In particular, there is a lack of research that aids understanding of how different team characteristics facilitate the development of team norm clarity and the extent to they might influence the relationship between team norm clarity and its outcomes, including relationship conflict. Hence, the overall purpose of this study is to contribute to team norm research by focusing on two important characteristics of contemporary teams and their relationship to team norm clarity. First, researchers have noted the lack of research examining how the cultural background of collaborators relates to team norm development (Moser & Axtell,

2013). We argue that a team's mean level of collectivism and uncertainty avoidance will influence team norm clarity. Second, the increasing use of virtual communication to facilitate knowledge intensive teamwork has led to calls for more research to understand the impact of degree of virtual communication in a team on how norms function (Moser & Axtell, 2013). Accordingly, we also examine how a team's degree of virtual communication moderates the influence that team norm clarity has on relationship conflict, with ultimate impact on team performance. Our theoretical model is summarized in Figure 1.

Figure 1: Conceptual Model



THEORY AND HYPOTHESES

We predict that a team's mean level of collectivism and uncertainty avoidance positively relates to team norm clarity. Relative to individualists, collectivists tend to value group goals over individual desires (Hofstede, 2001), and hence, are more vigilant in adhering to normative standards of behavior (Cheshin, Kim, & Nathan, Ning, & Olson, 2013). Similarly, team members with a lower tolerance for uncertainty likely strive for greater norm clarity in order to create less ambiguity and to better formulate appropriate actions and anticipate others' behaviors.

Hypothesis 1: (a) Team collectivism and (b) team uncertainty avoidance positively relate to team norm clarity.

We predict that norm clarity reduces relationship conflict, because it should decrease the frequency and severity of norm violations in a team—both real and perceived. It should also reduce misunderstandings by helping members anticipate behaviors of others and coordinate activities. Combined with Hypothesis 1, this suggests the following mediation hypothesis:

Hypothesis 2: (a) Team collectivism and (b) team uncertainty avoidance indirectly relate to a team's level of relationship conflict through the mediating effect of team norm clarity.

The negative relationship between team norm clarity and relationship conflict is likely to be more pronounced for teams that make greater use of virtual communication. Greater reliance on virtual communication creates a more de-individuated environment with fewer situational cues (Daft & Lengel, 1986). In such contexts, teams are more prone to misunderstandings and to attribute any misunderstandings that do occur to personal causes (Cramton, 2001). Hence, there is a greater need for norms that are clear and shared among team members to guide team member conduct and avoid misunderstandings.

Hypothesis 3: The negative relationship between team norm clarity and relationship conflict will be stronger when degree of virtual communication is high.

Considered together, Hypotheses 2 and 3 point to a moderated mediation effect where degree of virtual communication moderates the indirect effect of team collectivism and uncertainty avoidance on relationship conflict through norm clarity.

Hypothesis 4: Degree of virtual communication moderates the indirect effect of team (a) collectivism and (b) uncertainty avoidance on relationship conflict through team norm clarity, such that these indirect effects will be more strongly negative when degree of virtual communication is higher.

Past research suggests that task type can shape the extent to which different forms of conflict disrupt team performance (e.g., de Wit et al., 2012). The teams in our study performed complex project tasks that required team members to leverage each other's knowledge bases. For such teams, a prerequisite for effective team performance is that team members possess the necessary domain knowledge to accomplish the task. When team members' domain knowledge is low, relationship conflict is likely to be less detrimental to team performance. In other words, relationship conflict is less relevant to team performance in these teams because they lack the basic foundation for effective performance (i.e., strong domain knowledge).

Hypothesis 5: The negative relationship between relationship conflict and team performance will be stronger when team domain knowledge is higher.

METHOD

We tested our hypotheses with a sample of 209 students (49 teams) who conducted a semester-long project in an introductory organizational behavior class. Teams developed a creative case story that incorporated key course concepts and presented the story in a skit. Before teams were formed, students completed individual assessments of collectivism and uncertainty avoidance, which we used to compute each team's mean level of these cultural values. Close to the end of the project, team members assessed their team's level of norm clarity, relationship conflict, and percent of total interactions in the team that occurred using non-face-to-face communication methods (used to compute degree of virtual communication). After confirming acceptable aggregation statistics (r_{wg}, ICC1 & ICC2), we computed team-level norm clarity, relationship conflict, and degree of virtual communication as the mean of members' responses. Team domain knowledge was the mean exam grade for the team and team performance was the case presentation grade. Using a consensus method, four TAs used a rubric to separately grade the presentations, and then discussed to come to agreement. Team gender composition and

members' report of the total interaction that occurred in their team using all forms of communication media were used as control variables.

ANALYSIS AND PRELIMINARY RESULTS

We used Hayes' (2013) PROCESS macro for preliminary tests of the model hypotheses and found general support for the theoretical model. These results provide important insight into the role that team characteristics can play in shaping team norm clarity and its outcomes in teams, which has implications for relationship conflict, and ultimately, team performance.

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STATUS EFFECTS ON REACTIONS TO COMMUNICATION NORM VIOLATIONS

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Communication practices within organizations are governed by norms about what is appropriate within the workplace. Email is a dominant form of organizational communication. However, even though it has been around for a long time, there is still ambiguity over what is considered appropriate email behavior, with variation between different groups and contexts (Gilson, Maynard, Young, Vartiainen & Hakonen, 2014). As a fairly lean medium, email has relatively few social cues available which can lead to more extreme and inaccurate impressions when evaluating the sender (Walther, 2007). This might be further exacerbated by social identity processes as individuals tend to overlook transgressions made by their in-group (Lea & Spears, 1992). Consequently, email violations by out-group members may be subject to more negative reactions.

One important aspect of group identity is social status. Status, e.g. as a function of professional groups or organizational hierarchies, is often used as a means of categorization in organizations, and regulates group processes and behavior at work. With regards to communications, there may be different expectations of what is appropriate depending on the status of the recipient and the sender. For example, individuals tend to alter their email formality when writing to those of higher status (Postmes, Spears & Lea, 2000), and emails that do not match the expectations of higher status individuals can have a negative effect on their reactions and intention to cooperate (Stephens, Houser, & Cowan, 2009). Thus, violating these status-related expectations is likely to hamper collaborative outcomes.

As violations are related to perceived harm, emotional reactions can be triggered (Frijda, 1986). Such reactions can affect behavioral tendencies which may extend from 'move away' tendencies (e.g., ignoring the perpetrator) to more aggressive 'move against' tendencies, (e.g., directly reprimanding the perpetrator). Moreover, given the poor contextual information available in virtual environments, negative personal attributions about norm violations are more likely than positive attributions or situational attributions (Cramton, 2001). Given the tendency to overlook in-group transgressions (Lea & Spears, 1992) we might still expect more favorable in-group attributions and less positive out-group ones.

Following Social Identity Theory (Tajfel & Turner, 1986), we predict that individuals are likely to perceive violations and exhibit reactions with respect to group identity, with in-group favoritism and out-group biases. Thus, we hypothesize that emotional, attributional and behavioral reactions to email norm violation will be more negative towards out-group members (H1). In addition, we expect status to have an effect, such that the type of reaction depends on the status of the sender and recipient (H2). Specifically, as a result of exercising more social control we expect the most negative reactions to come from those of high status towards those of lower status. For the low status receiver, however, we would expect less strong reactions towards those of higher status. Those of low status may feel less power to do anything about transgressions by high status individuals and thus moderate their reactions accordingly. We test these hypotheses with two studies, one within a higher education setting and the other within a hospital setting, as both contexts tend to have strong subgroup and status demarcations.

STUDY 1 - METHOD

A 2 (participant status) x 2 (sender status) experimental design was used in which participants (students vs. lecturers) either 'received' an email from an in-group member or an

out-group member (students vs. lecturers). Two online surveys (one with student as sender and one with lecturer as sender) were developed and lecturer and student participants were randomly allocated to one of the conditions. Participants (177 students and 53 lecturers) were from a British University. The email vignette displayed in each condition was exactly the same. The instructions just before the vignette specified the status of the sender (either a lecturer or a student). The vignette contained a number of grammatical errors and formality norm violations in terms of the address ('Hi' – with no name), texting short cut ('r' instead of 'are'), a spelling error, number substitution ('2' instead of 'to'), incomplete sentence and an informal sign off ('Cheers'). The message sender was requesting a meeting with the recipient to discuss some research. Measures included perceived norm violation, emotional response (anger; happiness), positive internal attributions (e.g., verbally fluent, competent, lively, lazy (the latter reverse scored) and behavioral tendency (willingness to comply; move against – confront, move away – avoid/ignore). Control measures included age, gender, ethnicity, familiarity with online technology, perceived familiarity with the sender.

STUDY 1 - RESULTS

Analysis of variance demonstrated a significant interaction effect between sender and recipient status on whether recipients perceived a significant norm violation ($F_{(1,203)}=5.57$, $p<.05$). In support of H1, this indicated an out-group bias effect with students perceiving more of a violation for lecturer senders and lecturers perceiving more violation for students.

In terms of emotional reactions to emails, analysis confirmed that more anger ($F_{(1,211)}=10.65$, $p<.001$) was experienced when the sender of the email was from an out-group, again supporting H1. There were some differences in reactions depending on status such that lecturers received less negative reactions from students than students did from lecturers. Findings

for happiness indicated only a main effect for sender status, with more happiness directed towards lecturer senders for both groups of recipient ($F_{(1,211)} = 15.61$, $p < .001$). There was a main effect of status for some of the behavioral reactions (supporting H2) with lower status senders receiving more 'move against' reactions and higher status recipients displaying more 'move against' tendencies ($F_{(1,211)} = 6.55$, $p < .05$). A significant interaction effect ($F_{(1,211)} = 22.31$, $p < .001$) indicated that lecturers reported more 'move against' tendency for student senders whilst students reported more move against tendencies towards lecturers showing out-group bias (H1). For compliance, there was a significant main effect of sender status ($F_{(1,211)} = 7.52$, $p < .05$) with all recipients more likely to comply with lecturer senders. No differences were found in relation to the positive attributions. Thus, there is partial support for H1 and H2 for the emotional and behavioral reactions, but not for attributions.

STUDY 2 – METHOD

Study 2 adopted a similar methodology to study 1, but this time using a 2 (recipient status) x 3 (senders status) between subjects design. In this instance, whilst the 'recipients' where categorized as either 'high' or 'low' status, 'sender' status was either the same, higher or lower than the recipient. The participants were 93 Health care professionals; from 13 different professions. The study used three online surveys and participants were randomly allocated to one of the three surveys. The online surveys differed only in information regarding the participant's group identity i.e. whether the sender's status was the same, higher or lower than their own. The email vignette was very similar to that used in study 1, but was about a particular 'case' that the recipient might be interested in. The measures were the same as in study 1.

STUDY 2 - RESULTS

The findings were similar to that found in study 1 except that within the healthcare

setting the status effects were more pronounced in relation to perceived norm violation and attributions. For instance, more norm violation was perceived by higher status recipients overall ($F_{(1,88)}$ =5.38, p<.05). Status differences were found in relation to attributions, with fewer positive attributions made by higher status recipients overall irrespective of status of sender ($F_{(1,85)}$ =11.90, p<.001). Otherwise the behavioral and emotional reactions were very similar to that found in study 1, again partially supporting H1 & H2.

DISCUSSION

The findings of Study 1 and Study 2 indicate that intergroup reactions may be sensitive to even relatively mild formality violations. Several instances of out-group bias were found. However, status also has an impact on the intensity of reactions with the most negative reactions directed to those of lower status. High status seems to protect senders against the harshest reactions. In relation to behavioral outcomes, this is likely to be due to fewer options to carry out behavioral sanctions on the part of the lower status recipient. There appear to be more pronounced status effects within the Healthcare setting in relation to perceptions of degree of norm violation and for positive attributions perhaps because status differences are also related to professional differences within such settings (e.g., doctors vs. nurses) which might create stronger inter-group differences. Also, in study 2, all participants are professionals, whereas in the HE setting of study 1, students are not. Students are known to be generally cooperative, but they are also seeking a qualification which their lecturers can give or withhold, so the samples differ both in terms of dependency and levels of professionalism. These findings illustrate how status can impact the level of out-group bias reactions to norm violations in email communication. Moreover, this adds the important factor of professional status to previous research on norm violations.

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RECIPROCITY NORMS IN ONLINE KNOWLEDGE SHARING: A CONCEPTUAL ANALYSIS

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Many researchers are influenced by Self-Determination Theory (SDT) (Deci & Ryan, 1985; Gagné & Deci, 2005) and view reciprocity as one of the psychological drivers behind voluntary behaviors. The *intrinsic/extrinsic dichotomy* in SDT concerns the source of psychological stimulus relative to an individual person's inner state of being. Because human beings are the source of stimulus for one another in social interaction, motivation scholars also establish a *self/other dichotomy* that differentiates between egoistic (or self-oriented) motivations and altruistic (or other-oriented) motivations (Batson, 1991; Snyder & Omoto, 2000).

Interestingly, there seem to be disagreements in the Information System (IS) literature on where to place reciprocity in those dichotomous confinements (Lindenberg, 2001). For example, in Peddibholta and Subramani's (2007) analysis of Amazon reviewers' profiles, reciprocity was defined as an other-oriented motive, which drove reviewers to produce higher quality content compared to self-oriented motives. Similarly, Osterloh and Rota (2007) view reciprocity as a "pro-social intrinsic motivation" that distinguishes from "enjoyment-based intrinsic motivation". However, Kankanhalli et al. (2005) found that reciprocity was not a "pro-sharing" norm in building electronic knowledge repositories, as users were extrinsically motivated by future help from others in lieu of their contributions. von Krogh, Haefliger, Spaeth, and Wallin (2012) took a more nuanced stance in their study of open source software communities and argued that reciprocity is "by definition extrinsic" but people could internalize it to form "internalized extrinsic motivations" (p.653).

We propose to resolve these discrepancies through a close examination of two intertwined attributes of reciprocation: one is *benefactor-oriented, back-looking, learned and reinforced by past experiences*, and the other is *beneficiary-oriented, forward-looking, and based on normative beliefs*. We argue that the sense of indebtedness in the beneficiary, rather than the expectation of return in the benefactor, is key to understanding and cultivating the norm of reciprocity in online contexts. According to Gouldner (1960) and other social exchange theorists, when viewed as a pattern of mutually gratifying exchange of valuable resources, reciprocity is a behaviorist concept that follows the rules of reward and reinforcement (Cropanzano & Mitchell, 2005; Molm, Collett, & Schaefer, 2007; Nowak & Sigmund, 2005). Benefactor A provides a valuable resource to beneficiary B with anticipation that B will reciprocate something that A needs at the moment or in the near future. Reciprocity is clearly an extrinsic motivation for the benefactor to initiate the resource exchange. The problem, as game theorists have demonstrated, is that a beneficiary may seek to maximize her benefits by not returning anything to the exchange partner (Falk, Fehr, & Fischbacher, 2008; Fehr & Gintis, 2007). To maintain a long-term reciprocal relationship and achieve solidarity in a community, Gouldner argues, requires a generalized norm of reciprocity that morally obliges a person to return benefits received.

It was a significant development in theorizing reciprocity, against the backdrop of behaviorism dominance in 1960s. As Uehara (1995) points out, Gouldner helped to shift the analytical focus of reciprocity from the benefactor (who is extrinsically motivated by *getting back* the repayment) to the beneficiary (who is obliged to *give back* when she receives). As a result, the idea of equity or fairness – which seems central to the view of reciprocity as extrinsic motivation – becomes less prominent, because the moral obligation may be fulfilled at an unspecified time, to a third party, and with a nonequivalent repayment.

Although these premises sound contradictory to behaviorist beliefs that unequal or unreturned favor would undermine the community spirit, the sociology literature has long discovered that people typically maintain asymmetrical or unbalanced social support relationships (e.g., Stewart, 1989). Anthropologists such as Pryor and Graburn's (1980) found that the gift giving among members of an Eskimo village manifest a pattern of low direct reciprocation, but the community showed no sign of tension or disharmony. Online community research has also revealed a similar asymmetrical pattern of give and take in many thriving online communities, with a minority of users contributing much more than other users (Preece, 2000; Preece & Shneiderman, 2009; Welser, Gleave, Fisher, & Smith, 2007). Aside from the impracticality of equal reciprocations in large-size communities, social exchange theorists believe that dyadic and direct reciprocation tends to result in a transactional and brittle social relationship. Generalized exchange with indirect reciprocity, on the other hand, leads to the conception of generalized rights and duties and, logically, to a more trusting, flexible, and sustainable community (Ekeh, 1974; Lévi-Strauss, 1969; Uehara, 1990).

As more and more empirical evidences contest the assumption that a healthy community entails a rough balance of give and take in the long run (Constant, Sproull, & Kiesler, 1996; Kollock, 1999), we suggest that the reciprocity research in online contexts should shift its attention away from benefactor's reward-driven motivation and focus on beneficiary's normative "indebtedness", a term defined by Greenberg (1980) as "a state of obligation to repay another" (p.4). With a sense of indebtedness, people who act by moral norm of reciprocity tend to avoid overbenefiting in social interactions (Greenberg & Westcott, 1983; Uehara, 1995). Studies in social psychology have found that individuals believing they would have an opportunity to reciprocate were more likely to request help from their exchange partner (Becker, 1990; Krebs,

1970). Wentowski's (1981) ethnographic work has also shown that elderly people denied further assistance from caregivers who refused to accept symbolic or token reciprocity. More strikingly, social support research reveals that thwarting a person's ability to fulfill his or her reciprocity obligations may cause emotional and psychological distress (Gleason, Iida, Shrout, & Bolger, 2008; Maisel & Gable, 2009; McClure et al., 2014). There is no systematic study of indebtedness in the online community literature, but some of the behavioral patterns documented in the literature may fit our indebtedness premise. For example, Joyce and Kraut (2006) found that newcomers who received replies to their initial posts were more likely to continue participating in the online community.

If the norm of reciprocity entices a sense of indebtedness in a beneficiary, then what actions would the beneficiary take to avoid over-benefiting? The beneficiary may 1) return the favor directly to the benefactor, 2) help a third party in the community, or 3) restrain oneself from seeking any further benefit (e.g., lurking or exiting the community altogether). Each of these actions will reduce the beneficiary's indebtedness, but impact the community in a different way. Direction reciprocation may only occur in small social groups, where "precise recognition of individual people" and "a memory of the various interactions one had with them in the past" (Nowak & Sigmund, 2005: 12) are possible. Indirect reciprocation and self-restraining from social interaction, however, are much more common in most online communities. Empirical findings in prior research have shown that knowledge creation in help-seeking forums is characterized by a pattern of generalized exchange, in which a helping act is reciprocated by a third party rather than the helpee (Wasko & Faraj, 2005; Wu & Korfiatis, 2013), and the majority of users are either silent lurkers (Preece, Nonnecke, & Andrews, 2004; Ren, Kraut, & Kiesler, 2007) or disappear after their first post (Arguello et al., 2006; Ren et al., 2012).

Therefore, for online community designers and managers, how to guide the sense of indebtedness in beneficiaries to promote indirect reciprocity and prevent lurking or exiting is a key challenge. Due to low levels of control and weak incentives (Demil & Lecocq, 2006), it is unrealistic to expect equal engagement of each member in the community (Ransbotham & Kane, 2011; Wasko et al., 2009). For those beneficiaries who feel indebted, the online community system should provide proper mechanisms that afford and facilitate indirect reciprocation. For example, in a Q&A online community, after a question has been satisfactorily resolved, similar questions posted by others in the future could be presented to the asker when she logs in. For infrequent users, an email message containing these questions could be sent to them as a reminder of repaying the favor. This kind of mechanisms is particularly important in large-size online communities where new questions can be easily overlooked due to replication and overload of information.

By extricating reciprocity from "a conventional model that relies on short-term intrinsic and extrinsic motivation" (Von Krogh et al., 2012: 650), we attempt to rescue an important concept in online community research from what may ultimately prove to be only partially adequate theories of motivation (e.g. utilitarianism). The purpose of this paper has been neither to argue for the superiority of the beneficiary-oriented normative reciprocity perspective over other frameworks, nor to imply its adequacy as a complete explanation of social interactions in all online exchanges. Rather, our aim has been to suggest the perspective's potential for explaining certain research findings and for generating plausible and interesting alternate hypotheses. The sociological theories of reciprocity may lead to greater theoretical diversity, a richer program of empirical study, and a more profound understanding of the dynamics of online communities.

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