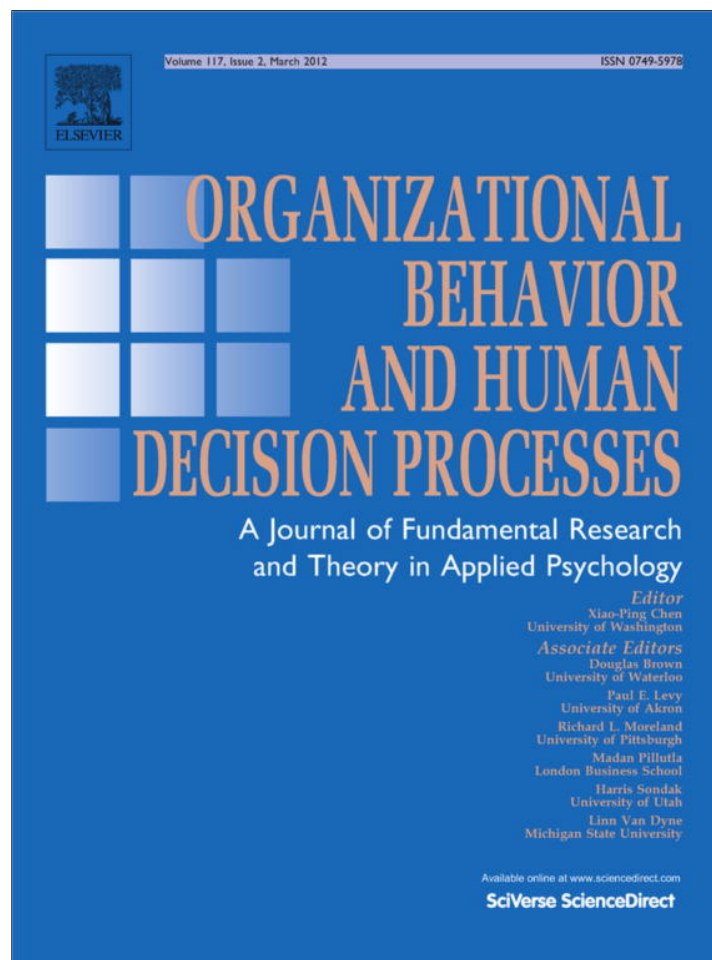


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Do I want to know? How the motivation to acquire relationship-threatening information in groups contributes to paranoid thought, suspicion behavior, and social rejection

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ABSTRACT

We investigated the psychological and social consequences associated with individuals' motivation to search for information about whether they have been indirectly harmed by members of their group. Consistent with a motivated social cognition perspective, group members who were either chronically (Study 1a) or temporally (Study 1b) high in the motivation to acquire relationship-threatening information (MARTI) made more sinister attributions in ambiguous situations and entertained more paranoid cognitions about their coworkers. Moreover, paranoid cognitions about coworkers mediated the relationship between MARTI and suspicion behaviors toward coworkers (Study 2). Consistent with a social interactionist perspective, others chose to exclude prospective group members who were high in MARTI from joining the group and planned to reject them if they became group members (Study 3). Others' social rejection of the focal group member was predicted by their anger toward group members who were high in MARTI (Study 4).

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Introduction

The relationships we form in groups, whether in sports teams, political committees, or organizational work units, can be a source of joy, social support, and meaning that satisfies many of our most basic needs. However, these relationships can also produce distress and psychological pain if our fellow group members do things that cause us harm. As scholars in organizational behavior (Kramer, 2002), social psychology (Fiske, Cuddy, Glick, & Xu, 2002), and sociology (Molm & Cook, 1995) remind us, trying to figure out whether people's intentions are potentially malevolent is a fundamental problem of social life because the risk of being harmed by others is ever-present in groups.

In this paper, we propose that group members vary in their motivation to search for diagnostic information about whether other group members seek to cause them indirect harm. Drawing from theories of motivated social cognition and symbolic interactionism, we hypothesize that this motivation is associated with paranoid thought patterns and suspicion behaviors that can anger other group members and lead them to reject those who actively search for evidence that others are secretly trying to harm them.

Although seeking information about whether other people are trying to harm them can help group members reduce uncertainty, taken to an extreme, this motivational orientation can be maladaptive and lead to the very outcomes (i.e., social rejection) the information seeker wants to avoid.

We base our arguments on the observation that group members who are directly and unambiguously harmed by others (e.g., by being cursed at, publicly berated, or physically assaulted) can infer with reasonable certainty that the harm-doer's intentions were malevolent. However, many groups and organizations have strong norms against direct aggression and extreme forms of uncivil behavior (Boye & Jones, 1997). Consequently, subtle and less conspicuous acts of harm-doing (e.g., negative gossip, back-stabbing, and efforts to undermine others' performance without it being obvious to the intended target) tend to be more prevalent (Aquino & Thau, 2009; Bennett & Robinson, 2000; Duffy, Ganster, & Pagon, 2002; Kramer, 1999).

Duplicious behaviors that are intended to cause harm to others have been referred to as *indirect victimization* (Aquino, Groer, Bradfield, & Allen, 1999) or *social undermining* (Duffy et al., 2002). Since group members are more likely to harm co-workers using these subtler forms of behavior rather than more direct forms such as physical aggression, threats, or verbal abuse (Robinson, 2008; Trevino, Weaver, & Reynolds, 2006), it seems prudent for group members to actively search for diagnostic

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information about whether they have been the target of such acts (Kramer, 2002). Research on information seeking suggests that scanning the environment for evidence about others' intentions can be psychologically adaptive because it reduces uncertainty and gives people a greater sense of control and predictability over their environments (Averill, 1973; Beehr & Bhagat, 1985; Coyne & Gotlib, 1983; O'Driscoll & Beehr, 1994). At some point, though, the motivation to search for information that one is being indirectly harmed can lead to paranoid thought patterns and behaviors that are socially maladaptive. We explore this possibility in this paper.

Our predictions are derived from research on close relationships, which indicates that relationship quality can be compromised by individuals who have a chronic need to acquire information about whether their partners have harmed them behind their back (Afifi, Dillow, & Morse, 2004; Ickes, Dugosh, Simpson, & Wilson, 2003). For example, such individuals report being more dissatisfied with their partners and are more likely to end relationships compared to those who are relatively less motivated to search for information that their partners have secretly harmed them (Ickes et al., 2003). Ickes et al. (2003) referred to the chronic need to find evidence of being secretly harmed as *the motivation to acquire relationship-threatening information*. We use their terminology in this paper and expect a similar phenomenon to occur in groups because group members, like partners in a close relationship, have comparable concerns about being indirectly harmed by those with whom they routinely interact.

The theoretical contributions of our research go beyond simply demonstrating the generalizability of findings from close relationships to a different kind of social relationship because we show how "the motivation to acquire relationship-threatening information in groups," hereafter referred to as MARTI, can be maladaptive. The reason why is that it can lead to undesirable cognitive (paranoid thought patterns), behavioral (suspicion behaviors), and social (anger and social rejection) consequences. We develop our model in two parts. First, we argue that MARTI leads information seekers to engage in specific patterns of cognition and behavior that they believe will help them reduce uncertainty in group relations. These cognitions include paranoid thought patterns like the tendency to make sinister attributions in ambiguous situations (Kramer, 1994; Study 1a) and to see the self as the target of others' malevolence (Fenigstein & Vanable, 1992; Study 1b). We suggest that these paranoid thought patterns motivate suspicion behaviors, defined as behaviors meant to monitor or test group members' intentions, such as secretly following or spying on coworkers and closely monitoring coworkers' daily behavior (Study 2).

In the second part of our model, we explain how MARTI can be socially maladaptive. We apply a *symbolic interactionist* perspective (e.g., Aquino & Thau, 2009; Felson & Steadman, 1983; Glomb, 2002) to suggest that because individuals who are high in MARTI exhibit distrust and suspicion of others (tested in the first part of our model), they decrease their chances of being accepted by group members (Studies 3 and 4). Further, we suggest that the anger provoked by high MARTI individuals partly explains the relationship between MARTI and social rejection (Study 4).

The motivation to acquire relationship-threatening information and paranoid thought patterns

People are often uncertain regarding the intentions of fellow group members because it is impossible to fully fathom others' thoughts. Everyone experiences social uncertainty at times, but according to Miller (1987), people pursue different strategies for dealing with the experience. Some people tend to act as "monitors" who seek out information; others tend to act as "blunters" who avoid gathering additional information, fearing that it might increase feelings of distress. There is some evidence that being a high

monitor heightens feelings of distress, threat, and jealousy (Ickes et al., 2003). High monitors are also more likely to experience dissatisfaction and instability in their intimate relationships than are low monitors.

We extend these findings into the group domain by suggesting that some group members are more motivated than others to seek out information about whether fellow group members have said unkind, unfair, or critical things and/or revealed intimate details about them to third parties either inside or outside the group. These third party communications can negatively affect people's well-being by damaging their reputation and compromising their ability to sustain positive relations with others (Duffy et al., 2002). We contend that a possible, and perhaps unintended, consequence of being *strongly* motivated to search for information that group members have communicated harmful things about them to others is that it increases the accessibility of harm-related cognitions in the mind of the information seeker which, in turn, leads to paranoid thought patterns. We base our prediction on theories of motivated social cognition.

The motivation to acquire relationship-threatening information as motivated social cognition

We assume that MARTI is goal-driven (i.e., I want to reduce my doubts about the intentions of others so I want to know whether they have harmed me behind my back). Like other motivational goals, MARTI can either be chronically present in people's minds or be induced by the presence of situational cues (see e.g., Elliot and Church (1997), Poortvliet, Janssen, Van Yperen, and Van de Vliert (2007), for performance motivation goals; see e.g., Burger and Cooper (1979), Whitson and Galinsky (2008), for control motivation goals). In either case, the presence of a particular motivational goal prompts people to think more systematically and intensely about the goal (De Dreu & Steinel, 2006), drives the search for information consistent with the goal (Klayman & Ha, 1987), and renders other goals relatively less salient (Fiske & Taylor, 2008). One consequence of a particular goal-related concept being more cognitively salient than others is that it can bias information processing and lead to behavior that is consistent with the goal. For example, people who adopt a prosocial value orientation (i.e., those who chronically pursue the goal of equal outcomes for oneself and others) are more likely to evaluate a negotiation opponent as being considerate of their needs than people with an individualistic or competitive goal orientation (De Dreu & Van Lange, 1995). Other studies have shown that when people are motivated to attend to harmful stimuli, they are more likely to fear that others are initiating threats against them, ascribe attributions of malevolence to others, and demonstrate rigidity of thinking about these attributions (Heilbrun, 1968; Locascio & Snyder, 1975).

Motivated cognition principles suggest that MARTI focuses attention toward seeking harm-related information. Individuals who pursue this motivational goal may adopt it because they believe that having such information will allow them to reduce social uncertainty. Understanding the motivations of others can be functional because it can protect the person from potential harm-doers. However, a strong desire to know about the harmful intentions of others can trigger frequent thoughts about harm. In other words, the concept of harm becomes more accessible in the motivated individual's mind and this increased cognitive accessibility can influence other social information processing outcomes. In Studies 1a and 1b, we examine two specific information processing outcomes – the sinister attribution error (Kramer, 1994) and the self-as-target bias (Fenigstein & Vanable, 1992) – both of which can be characterized as paranoid thought patterns (Colby, 1981; Fenigstein & Vanable, 1992; Kramer, 1994).

Study 1: MARTI and sinister attributions in ambiguous situations

In many situations, the intentions and motives of others are not entirely clear from their behavior (Dodge, 1980; Srull & Wyer, 1979). For example, someone who looks in a different direction while passing us in the hallway may do so because they want us to signal their dislike for us or they heard a noise coming from a different direction. The “sinister attribution error” reflects a tendency for individuals to over-attribute hostile intentions and malevolent attributions to the ambiguous behaviors of others (Kramer, 1994). People who exhibit paranoid thought patterns (e.g., the sinister attribution error) hold the often unfounded belief that others have malevolent intentions and they “interpret events that have nothing to do with them as bearing on them personally” (Colby, 1981, p. 518).¹ Thus, in the above example, the sinister attribution would be to assume that the person who turns away dislikes us.

When people want to know whether they have been harmed, harm-related concepts become cognitively more accessible, leading to a greater likelihood that these concepts will influence attributions in situations that are somewhat ambiguous. Based on this reasoning, we tested the following hypothesis:

Hypothesis 1. There is a positive relationship between the motivation to acquire relationship-threatening information and paranoid thought patterns (e.g., sinister attributions, self-as-target bias).

Study 1a

Method

Participants and procedure. Participants ($N = 93$; 65% female; average age of 23.51 years, $SD = 5.72$) were recruited through a research pool to participate in three allegedly unrelated studies on “reactions to workplace situations.” In the first study, participants provided demographic information and completed a six-item questionnaire that assessed MARTI in a group context. In the second study, participants completed a filler task in which they wrote about a trivial life situation. In the third study, participants were asked to report how they would react to two scenarios. The scenarios described ambiguous situations that occurred in a work environment and participants were asked to imagine themselves as the focal character in the scenario. The dependent variable was assessed in this third study. After responding to the scenarios, participants were thanked, debriefed, and compensated (\$15).

Measures. Participants' MARTI was assessed as part of the first study. We adapted a measure of MARTI that has previously been used in the close relationships literature (Ickes et al., 2003). Our measure assesses the extent to which group members are motivated to seek out information about whether fellow group members had said unkind, unfair, critical things, or given intimate details about them to third parties inside or outside of the group. The MARTI scale used in close relationships research measures the extent to which individuals want to know whether their partners did potentially harmful things behind their back that could threaten the stability of their relationship (e.g., “Whether my partner has dated one of my same-sex friends without telling me”; “The most unkind or unfair thing my partner has said about me to one of my same-sex friends”). In a comprehensive study of its

reliability and validity, Ickes et al. (2003) found that their MARTI scale had a reliable one-factor structure, which was (a) related to distrust, relationship satisfaction, and suspicion behaviors, as well as (b) unrelated to the Big Five personality traits and adult attachment styles. We make the assumption here that our shortened measure has similar convergent and discriminant scale properties.²

We selected the items that could be relevant to group relationships and that reflect our focus on indirect harm through interactions with third parties (e.g., saying critical things about the focal person to others; saying unkind or unfair things about the focal person to others). We adapted these items so that they would represent indirect harm that happens both inside and outside the group. The six items in our MARTI scale asked whether individuals would want to know (1) or not know (0): “The most critical thing other group members have said about me to people outside the group”. “The most unkind or unfair thing other group members have said about me to one another”. “The most critical thing other group members have said about me to one another”. “The most unkind or unfair thing other group members have said about me to people outside the group”. “The most intimate detail of my past behavior with other group members that they have revealed to one another”. “The most intimate detail of my past behavior with other group members that they have revealed to people outside the group.” Responses to the six items were summed to create an overall score for MARTI (from zero to six).

Pilot study. In an independent pilot study, we recruited working adults ($N = 622$) from StudyResponse (Stanton & Weiss, 2002) to evaluate the factor structure and reliability of our adapted MARTI scale. Participants were asked to think about the group (team, department, or work unit) in which they work and then answer the six items. We factor analyzed the items using principal axis factoring. This analysis revealed a one-factor solution; the Scree plot showed inflection after the first factor and only one factor had an Eigenvalue greater than one (4.13); this factor explained 97% of the variance in the measure. These results suggest that the items were measuring one underlying construct (Harman, 1976). Additionally, all items loaded highly ($>.79$) on the first factor and the summed items resulted in a reliable scale ($\alpha = .93$).

In Study 1a, we assessed the MARTI in groups by first asking participants to think of a group that they belonged to and interacted with frequently and to use this group when responding to our MARTI scale. Identified groups included study groups ($N = 26$), work units (team, department, or work group) at their job ($N = 34$), sports groups ($N = 11$), or social groups ($N = 22$). Responses were summed ($M = 3.60$, $SD = 2.22$; $\alpha = .85$).

After participants provided their MARTI scores and completed the filler task in the second study, we assessed participants' tendency to make *sinister attributions*. Participants were presented with two ambiguous scenarios. The first scenario depicted a situation in which the participant loses a pen and then sees a coworker using a pen that looks the same (Dodge & Frame, 1982). The second scenario depicted a situation in which the participant heard laughter coming from the lunchroom. When the participant opened the door, the laughter stopped. After each scenario, participants were asked two questions that assessed whether they perceived the motives of the other individuals in the scenario to be sinister or benevolent. Following procedures used in past studies (Dodge & Frame, 1982; Epps & Kendall, 1995), the multiple choice responses for each question provided two sinister options (e.g., “Your coworker stole your pen”; “Your colleagues were laughing at you and

¹ We use the term paranoid thought patterns broadly to refer to individual beliefs about being harassed, threatened, harmed, or persecuted by others. It is possible that these beliefs have a rational basis for some individuals (cf. Colby, 1981; Fenigstein & Vanable, 1992).

² Although the primary goal of this paper was not scale development, we would like to note that similar correlations are also reported in this paper. In Study 2, we found positive correlations between the MARTI scale, paranoid cognitions, and suspicion behaviors. In Study 4, the effects of MARTI on anger and rejection are independent of trait negative affect.

talking behind your back”), and two benevolent options (e.g., “You lost your pen and your coworker has a similar pen”; “Your colleagues were laughing at something in the lunch room before you came in”). Responses to the scenario were coded as “sinister” (1) or “benevolent” (0). These scores were summed across questions for both scenarios so that each individual had an overall score (from 0 to 4) for the ambiguous scenarios ($M = 1.23$; $SD = 1.11$); higher scores indicated more sinister attributions.

Results and discussion

We analyzed Hypothesis 1 with OLS regression. Results demonstrated a significant and positive relationship between MARTI scores and sinister attributions in ambiguous situations ($b = 11$, $t = 2.05$, $p < .05$, $R^2 = .04$, $F(1,90) = 4.19$, $p < .05$).³ As noted above, motivated social cognition perspectives suggest that individuals process information in ways that are consistent with their motivational goals (Kunda, 1990). These results lend support to our argument that MARTI directs individuals' attention toward harm-related information, which is associated with a greater likelihood of making harm-related attributions.

Study 1a provides preliminary evidence that MARTI in groups can lead to paranoid thought patterns. To eliminate the possibility that the attributions caused MARTI scores to change, we assessed MARTI before participations made their attributions. However, the study remains correlational and so causality cannot be conclusively inferred. Furthermore, even though we found that MARTI was associated with one manifestation of paranoid thought patterns (i.e., sinister attributions in ambiguous situations), we did not know whether these effects would be replicated using a more general measure of paranoid cognitions, in which the self is seen as the target of others' malevolent actions. We designed Study 1b to address these limitations.

Study 1b

The purpose of Study 1b was to constructively replicate the results of Study 1a in an experimental setting using a different measure of paranoid thought patterns. We used a goal induction paradigm (e.g., Poortvliet et al., 2007; Whitson & Galinsky, 2008) that temporally makes motivational goals salient to demonstrate the causal effect of MARTI on paranoid thought patterns. The dependent variable in this study was an adapted paranoid cognitions measure (Fenigstein & Venable, 1992) that allowed us to assess people's tendency to exhibit a bias related to seeing the self as the target of others' actions in work situations.

Method

Participants and procedure

Ninety-three members of a behavioral research laboratory subject pool (67% female; mean age = 27.02, $SD = 7.27$) participated in a computer-based study on “Work Experiences and Thoughts.” Participants were randomly assigned to one of three motivational goal conditions in a between-subjects design: (a) goal to acquire relationship-threatening information (MARTI condition), (b) goal to acquire indirect positive information (first control condition),

³ The dependent variable in this study (number of sinister attributions) is a count variable. In some instances, OLS regression may have trouble providing unbiased estimates when the dependent variable is a count. In these instances, poisson regression models may be more appropriate (Long & Freese, 2006). We tested the robustness of the OLS regression analysis by repeating the hypothesis test with a poisson regression model. The results of this analysis led to the same substantive conclusions: there was a significant and positive relationship between scores on the MARTI and sinister attributions in ambiguous situations ($b = .09$, $z = 2.00$, $p < .05$).

or (c) goal to acquire information about electronic products (second control condition).

Participants were told that the study included two separate parts. Participants read that in Part 1, we were collecting data on goals that people pursue when they work in groups. In Part 2, they would share thoughts and attitudes about their work. The study took 10 min to complete and participants were entered into a prize draw for \$15 online retail vouchers. Participants gave their informed consent and began the first part of the study entitled “Goals at Work.” This part of the study included the goal manipulation.

Manipulation

In the goal to acquire relationship-threatening information (MARTI) condition, participants imagined that “you want to know whether your coworkers have said harmful things about you to other people in or outside the group.” Participants reported how they might go about finding this information and described the thoughts/feelings they might have when pursuing this goal (Poortvliet et al., 2007).

We used two control-goal conditions. In the goal to acquire positive information control condition, participants imagined that “you want to know whether your coworkers have said positive things about you to other people in or outside the group.” In the goal to acquire information about electronic products control condition, participants imagined that “you want to find out from your coworkers where you can get the best electronic products.” Consistent with the MARTI condition, participants in both control conditions described how they might go about finding the information and their thoughts/feelings when pursuing the respective goal.

Dependent variable

After completing the goal manipulation, participants began the second part of the study entitled “Your Thoughts about Work”. This part of the study measured the dependent variable of paranoid cognitions. We measured this construct by adapting Fenigstein and Venable's (1992) 20-item paranoid cognition measure to a work context (e.g., the original item “Most people will use somewhat unfair means to gain profit or advantage, rather than lose it” was changed to “Most people at my work will use somewhat unfair means to gain profit or advantage, rather than lose it”; and the original item “I am bothered by people outside, in cars, in stores, etc. watching me” was changed to “I am bothered by people at work watching me”).⁴ The anchors ranged from strongly disagree (1) to strongly agree (7) and the twenty items were averaged ($\alpha = .94$).

Results

Effect of goal manipulation on paranoid cognitions. We conducted contrast analysis (Rosnow & Rosenthal, 1985) to test the prediction that wanting to find out about indirect harm causes people to entertain more paranoid cognitions. There were no significant differences in paranoid cognitions between the control–positive information goal ($M = 2.74$, $SD = .96$) and control–electronic products goal conditions ($M = 2.77$, $SD = 1.05$), $F(1,88) = .01$, *ns*. However, as expected, participants in the MARTI condition reported more paranoid cognitions ($M = 3.36$, $SD = 1.09$) compared to participants in both control conditions, $F(1,88) = 6.71$, $p < .05$. Overall, the goal manipulation effect on paranoid cognitions was $R^2 = .07$, $F(2,88) = 3.37$, $p < .05$.⁵

⁴ The full set of this scale and all other scales reported in this paper are available from the authors.

⁵ One case in the electronic products control condition was excluded because it had a studentized residual greater than 3, with a large gap from the remainder of the residuals (Cohen, Cohen, West, & Aiken, 2003).

Constructive replication of Study 1b with an alternative paranoid cognitions measure. In a different sample, we re-ran the goal induction procedure used in Study 1b with an alternative measure of paranoid cognitions as the dependent variable. Compared to the widely used subclinical paranoia scale administered in Study 1b, the 18-item paranoia scale used in the constructive replication assessed paranoid thoughts of a more clinical nature (e.g., “There is a possibility of a conspiracy against me;” “I am under threat from others;” “My actions and thoughts might be controlled by others;” Freeman et al., 2005). Responses ranged from strongly disagree (1) to strongly agree (7) and the eighteen items were averaged ($\alpha = .94$).

Eighty-seven members of a behavioral research laboratory subject pool participated in the constructive replication study (62% female; mean age = 25.25, $SD = 8.01$). Replicating the results from Study 1b, the control-positive information goal ($M = 2.67$, $SD = 1.15$) and control-electronic products goal conditions ($M = 2.63$, $SD = 1.03$) did not differ significantly in their paranoid cognitions, $F(1, 84) = .03$, *ns*. Participants in the MARTI condition reported more paranoid cognitions ($M = 3.26$, $SD = 1.11$) than the two control groups, $F(1, 84) = 6.23$, $p < .05$.

Discussion

Study 1b showed that making MARTI an explicit goal increased paranoid thoughts about whether the self was seen as the target of coworkers' malevolent actions. Moreover, we constructively replicated these results using a different measure of paranoid cognitions. The results of Study 1b provide causal evidence supporting Hypothesis 1 and further support the correlational patterns found in Study 1a.

Studies 1a and 1b focused on cognitive outcomes. However, motivated social cognition theories suggest that motivational goals also channel behaviors in ways that are consistent with these goals (Showers & Cantor, 1985). Thus, an important empirical question is: Are these cognitions associated with the behaviors of the motivated individual? We argue that one plausible behavioral consequence of paranoid cognitions is that the information seekers will exhibit suspicion behaviors (e.g., spying on coworkers' conversations) in an effort to confirm or dispel their beliefs that others are trying to harm them indirectly. We tested this prediction in Study 2.

Study 2: MARTI, paranoid cognitions, and suspicion behavior

We examined whether people who are chronically motivated to acquire relationship-threatening information will exhibit suspicion behaviors intended to monitor or test a group member's intentions (e.g., spying on coworkers and eavesdropping on coworkers' conversations). These behaviors can be interpreted as an effort to confirm or validate their paranoid thoughts (Kramer, 1999). The following hypothesis was tested:

Hypothesis 2. Paranoid cognitions mediate the relationship between the motivation to acquire relationship-threatening information and suspicion behaviors.

Method

Participants and procedure

Participants ($N = 506$; 54% female; mean age 40.26 years, $SD = 13.85$) were full- and part-time employees in the United States. They were recruited with the assistance of Zoomerang, an online data collection service that caters to educational, non-profit, and market research which has been used by researchers in a number of domains including organizational behavior (e.g., Rogers & Bazerman, 2007) and the medical sciences (e.g., Becker, Schwartz,

Saris-Baglana, Kosinski, & Bjorner, 2007). In exchange for their participation, individuals were given Zoomerang points that they could use for future online purchases.

Measures

Motivation to acquire relationship-threatening information. We measured this construct with our six-item MARTI scale. Consistent with the pilot study, the participant's work group (team, department, work unit) served as the group context ($\alpha = .94$).

Paranoid cognitions. We measured a generalized tendency to hold paranoid cognitions with the same twenty items used in Study 1b (Fenigstein & Vanable, 1992). Responses were averaged ($\alpha = .97$).

Suspicion behaviors. This construct was measured by the suspicion behavior checklist developed by Ickes and colleagues (2003) to determine whether an individual engaged in behaviors to monitor or test a partner's disloyalty. We adapted this eight-item scale to the group context by changing the referent from “partner” to “coworker.” Participants indicated the extent to which they engaged in behaviors such as “eavesdropping on a coworker's private phone conversation” from never (1) to 5 or more times (4). Responses were averaged ($\alpha = .85$).

Results

Factor analysis of study variables. We conducted a principal factor analysis (with promax rotation) of the 34 items that were used in Study 2. As expected, we found three factors (Eigenvalues > 1) that explained 92% of the variance. All items loaded $> .35$ on their expected factor, with the exception of one suspicion behavior item (“Eavesdropped on a coworker's private phone conversation”), which did not load clearly. The results of the mediation analyses we report below include this item because results with and without this particular item were nearly identical and lead to the same substantive conclusions.

Mediation analyses. Table 1 shows descriptive statistics and zero-order correlations among Study 2 variables. We used OLS regression analyses to test whether MARTI was related to suspicion behaviors and whether this relationship was mediated by paranoid cognitions (Hypothesis 2; see Table 2). We tested three models. In Model 1, MARTI significantly predicted suspicion behaviors (the dependent variable) ($b = .04$, $t = 4.94$, $p < .001$, $R^2 = .05$) and in Model 2, MARTI significantly predicted paranoid cognitions (the mediator) ($b = .11$, $t = 4.74$, $p < .001$, $R^2 = .04$). When paranoid cognitions and MARTI were both entered into the regression model predicting suspicion behaviors (Model 3), the regression parameter of MARTI dropped in significance ($b = .03$, $t = 3.47$, $p < .01$) and paranoid cognitions predicted suspicion behaviors ($b = .13$, $t = 8.06$, $p < .001$, $\Delta R^2 = .11$).

According to Baron and Kenny (1986), these results are suggestive of partial mediation. However, this traditional approach to assess mediation has shortcomings because it does not allow the strength or significance of the mediated (i.e., indirect) effect to be

Table 1

Study 2: Means, standard deviations, and zero-order correlations of study variables.

Variables	Mean	SD	1	2
1. Paranoid cognitions	2.80	1.36		
2. Suspicion behaviors	1.40	.51	.37***	
3. MARTI	3.17	2.62	.21***	.22***

Note. $N = 506$.

*** $p < .001$.

Table 2
Study 2: OLS regression results for the motivation to acquire relationship-threatening information predicting suspicion behaviors mediated by paranoid cognitions.

Variable	Model 1: Suspicion behaviors		Model 2: Paranoid cognitions		Model 3: Suspicion behaviors	
	<i>b</i>	95% CI	<i>b</i>	95% CI	<i>b</i>	95% CI
MARTI	.04***	.03, .06	.11***	.06, .16	.03**	.01, .04
Paranoid cognitions					.13***	.10, .16
<i>R</i> ²	.05***		.04***		.16***	
<i>F</i>	24.45		22.47		46.22	

Note. *N* = 506.

** *p* < .01.

*** *p* < .001.

evaluated (Edwards & Lambert, 2007). Therefore, we followed procedures recommended by Edwards and Lambert (2007) and bootstrapped 1000 samples to calculate a bias-corrected confidence interval for the MARTI → paranoid cognitions → suspicion behaviors' indirect effect. We used bootstrapping because the distribution of indirect effects often violates assumptions of normality, which are required for the conventional Sobel test.

The results of the bootstrap suggest that the indirect effect (*P* = .01) of MARTI on suspicion behaviors was statistically significant because the bias-corrected confidence interval did not include zero (95% CI = [.01, .02]). These results provide additional support for our hypothesis that paranoid cognitions mediate the relationship between MARTI and suspicion behavior.

Discussion

Study 2 demonstrated that (a) employees who scored higher on the MARTI scale reported engaging in more suspicion behaviors and (b) this relationship was mediated by paranoid cognitions. Taken together, Studies 1a, 1b, and 2 support our argument that MARTI represents a motivational goal that guides individuals' cognitions (i.e., paranoid thought patterns) and behaviors (i.e., suspicion behaviors). Although our results suggest that this motivational orientation has consequences for the individual, we do not yet have evidence for its maladaptive social implications. Studies 3 and 4 tested this premise of our theoretical model.

Study 3: Others' social rejection of people who are motivated to acquire relationship-threatening information

We define a maladaptive social strategy as behavioral pattern that reduces a person's chances of being socially accepted by other group members (Stevens & Fiske, 1995). We argue that because people who are high in MARTI exhibit suspicion behaviors, they can provoke negative social reactions from others and increase their chances of being rejected by their group members. The basis for our prediction comes from several theoretical perspectives describing how the traits and behaviors of one party may inadvertently elicit undesired responses from others. For example, Aquino and his colleagues applied victim precipitation (e.g., Curtis, 1974; Schafer, 1968) and symbolic interactionist (Felson & Steadman, 1983) models to explain why certain personality characteristics such as negative affectivity (Aquino et al., 1999) and aggressiveness (Aquino & Bradfield, 2000) can make some people appear to others as vulnerable and deserving targets of mistreatment. Similarly, targets of bullying tend to exhibit common characteristics such as low self-esteem, low social competence, and high social anxiety (Einarsen, Raknes, & Matthiesen, 1994; Zapf, 1999). Finally, dynamic models of conflict escalation (e.g., Andersson & Pearson, 1999; Glomb, 2002; Tedeschi & Felson, 1994) suggest that violations of social norms by one party can elicit retaliatory responses from another party that are meant to punish the norm violator. These explanations converge on the common theme that some

people may elicit harmful behaviors from others as a result of their own actions (Aquino & Thau, 2009).

Applying this observation to groups, we propose that people who exhibit paranoid thought patterns are often irrationally distrustful and tend to behave in ways that signal this distrust to others (Kramer, 1994). We found evidence supporting this claim in Study 2. Extending this finding, we argue that such behaviors can lead others to view the suspicious person as a less desirable exchange partner, confidante, team member, or friend. This is because people who sense that they are not trusted by another party can feel resentment and anger as a result of being viewed in a negative way (Cialdini, 1996). For example, Pillutla, Malhotra, and Murnighan (2003) found that people who are not trusted often reciprocate with similarly low and sometimes even lower levels of trust. Thus, we hypothesized the following:

Hypothesis 3. Group members who are highly motivated to acquire relationship-threatening information are more likely to be socially rejected by other group members than are those who are not highly motivated to acquire relationship-threatening information.

Method

Participants and procedure

Participants (*N* = 102; 71% female; mean age = 22.09, *SD* = 5.00) were recruited through a research pool to participate in a "group study" that would involve the selection of people into a group to engage in an interactive group task. When participants arrived at the lab in groups of four, they were told that they would first complete a brief survey, followed by an individual task. Then, participants would have to wait for five minutes for the experimenter to determine the members of the group who would be engaging in a group task (in reality, there was no group task).

Participants were seated in front of a computer and read instructions on the screen. They learned that half the participants had been randomly selected to complete a pre-study survey before coming to the lab and that the other half of participants would complete an abbreviated version of this survey in the lab as part of the study. Participants indicated whether they completed the pre-study survey before coming to the lab. In reality, no participants completed a survey before coming to the lab, so all participants should have indicated that they had not completed the pre-study survey. The purpose of including this step was to increase the believability of the cover story that half of the participants had completed a pre-study survey. Two participants who falsely reported completing the survey before coming to the lab were directed to a page saying "Our records indicate you did not complete the pre-study survey. You were selected to complete the abbreviated Participant Checklist in the lab today." They were asked to complete the survey and were dismissed. Participants who correctly reported not having completed the pre-study survey

completed an “abbreviated version of the pre-study survey” ($N = 100$) which consisted of demographic questions (e.g., age, gender).

After completing the “abbreviated survey,” participants read that they would complete a brief individual task before participating in the interactive group task. They read that they would complete the interactive group task with two other participants, but that there were three potential group members available to take part in the task. They also read that two of these potential group members had completed the pre-study survey. Their individual task was to review the results of one group member's pre-study survey (without identifying demographic information) and determine (based on the individual's survey results) whether they would want to complete the interactive group task with this person. Participants read that the experimenter would review the preferences of all group members to put together the groups of three for the interactive group task.

Manipulation

Participants saw a page of survey results that included the same questions they answered in the abbreviated survey (potentially identifying information such as age and gender were replaced with XX), but that also included responses to an additional open-ended question: “How do you feel about group work? Please describe in a few sentences your perceptions and experiences of group work.”

Participants saw one of three responses based on their randomly assigned condition. The focal condition included the response of a prospective group member who was motivated to acquire relationship-threatening information. The other two responses acted as control conditions. The first control condition described a prospective group member who was motivated to seek feedback on task performance. The second control condition described a prospective group member who was motivated to learn more about interactions in the group. The descriptions all contained the same number of words and had the same format:

MARTI condition. “I like working in groups and have often worked with other people in a group setting. However, I am always interested to know whether others in the group have said unkind or unfair things about me without me knowing about it.”

Motivation to seek task feedback (control) condition. “I like working in groups and have often worked with other people in a group setting. However, I am always interested to know whether others in the group think my work is appropriate and up to the standards of the group.”

Motivation to learn about group interactions (control) condition. “I like working in groups and have often worked with other people in a group setting. However, I am always interested to know more about the interactions of others in the group and the experience of being part of a team.”

Participants took a few minutes to think about this person and visualize working with this person in the upcoming group task. The purpose of this was to help participants make an informed decision about whether they would want to be in a group with the prospective group member. Participants then indicated the extent to which they wanted to reject the prospective group member.

Dependent variables

Social rejection. We measured this construct in two different ways. The first was a categorical *choice to exclude* the prospective group member from group membership. Participants were asked: “Would you like this person to be in your group for the group task?” (yes/no). Choosing “no” would indicate that the participant wanted to exclude the prospective group member from group

membership. We reverse-coded this variable so that “1” indicated exclusion and “0” indicated inclusion.

Social rejection desires. Exclusion from group membership is a particularly extreme form of social rejection. People may shy away from making such a drastic choice, but still harbor desires to reject the individual in other ways. Moreover, participants in this study might realize that other group members could choose the person they did not select, and so they might plan to reject the prospective group member when they needed to interact with that person on the upcoming task. Therefore, we also measured *social rejection desires* including intentions to ignore the individual's comments or suggestions, avoid interacting with the individual, and exclude the individual from social interactions (Jackson & Lepine, 2003). We asked participants to indicate, on a scale from 1 (not at all) to 7 (very much), the extent to which they would want to engage in these behaviors. Responses were averaged ($\alpha = .88$).

After responding to the dependent variables, participants were told there would be no group task. They were then debriefed, compensated (\$15), and dismissed.

Results

We first tested whether participants were more likely to exclude prospective group members who were high in MARTI compared to the two control conditions. Since the *exclusion choice* measure was binary, we used logistic regression analyses. Dummy variables were created to represent the three experimental conditions and we calculated the *odds ratios* (i.e., e^b) of being excluded given that a prospective group member was motivated to acquire relationship-threatening information relative to each of the control condition dummies (Long & Freese, 2006).

In support of Hypothesis 3, the odds of excluding a prospective group member who showed evidence of being high in MARTI were 3.63 times greater compared to the odds of excluding a prospective member in the motivation to seek task feedback (control) condition ($b = 1.28$, $OR = 3.63$, $z = 1.99$, $p < .05$). Further supporting Hypothesis 3, the odds of excluding a prospective group member who was high in MARTI were 16.50 times greater compared to the odds of excluding someone in the motivation to learn about group interactions (control) condition ($b = 2.80$, $OR = 16.50$, $z = 2.60$, $p < .01$). The overall logistic regression model was statistically significant ($LR \chi^2(2) = 12.53$, $p < .01$) and explained 14% of the variance (Pseudo R^2) in exclusion choices. Table 3 shows the number of participants who chose to exclude and not to exclude in each experimental condition.

Using planned contrasts, we then tested whether the manipulation also affected participants' *social rejection desires*. There were no significant differences in social rejection desires between the motivation to seek task feedback (control) condition ($M = 1.48$, $SD = .83$) and motivation to learn about group interactions (control) condition ($M = 1.47$, $SD = .86$), ($F[1,98] = .00$, ns). As predicted, compared to these two control conditions, participants' desire to socially reject was greater when the prospective group member was high in MARTI ($M = 2.45$, $SD = 1.48$), ($F[1,98] = 17.58$, $p < .001$). The overall Analysis of Variance (ANOVA) revealed that

Table 3

Study 3: Frequencies of exclusion and non-exclusion choice in the MARTI, group interaction goal control, and task feedback goal control conditions.

Condition	Exclusion choice	
	Non-exclusion	Exclusion
MARTI	22	11
Group interactions	29	4
Task feedback	33	1

the three conditions explained 15% of the variance in social rejection desire scores ($F[2, 98] = 8.79, p < .001$).

Discussion

Study 3 provided evidence that people are more likely to exclude prospective group members high in MARTI as compared to two different control conditions. Participants also reported a stronger desire to socially reject someone high in MARTI as indicated by behaviors like ignoring the individual's comments and suggestions, avoiding interacting with the individual, and excluding the individual from social interactions should that individual become a group member (Jackson & Lepine, 2003).

Although the results of Study 3 support our hypothesis, it has a number of limitations. First, people made exclusion decisions and indicated their rejection desires based on minimal information and in the context of voting unknown people into groups. We do not know whether these effects would be different in settings in which group members had an ongoing relationship with one another. Second, while the experimental technique used in Study 3 allowed for causal inferences, one may argue that the manipulation of MARTI is low on mundane realism (Carlsmith, Ellsworth, & Aronson, 1976). Our experimental context may not necessarily mimic how MARTI is displayed in the "real world" (i.e., it is possible that individuals high in MARTI may not explicitly convey their interest in determining whether they have been indirectly harmed since this may be perceived as socially inept). However, we argue that individuals high on MARTI are likely to convey rather than conceal this motivation and that this perceived "social ineptness" is likely to be a consequence of high MARTI. This assertion is supported by our findings in Study 2 that high MARTI individuals reported engaging in more suspicion-related behaviors. Nonetheless, it is important to explore the effects of MARTI in a field setting. If high MARTI individuals are able to conceal their motivation from others then we should not find that they experience negative social consequences outside the laboratory. We test this possibility in Study 4. Additionally, we do not know whether, in less controlled environments, reactions toward a person who is highly motivated to acquire relationship-threatening information could be explained by a response to a display of negative affect rather than to a harm-detection motivation. This is an important question because previous research has found that one of the most consistent predictors of being the target of interpersonal harm is whether the target experiences and expresses negative affect (Aquino & Thau, 2009). A final limitation of Study 3 is that it did not examine *why* others rejected those who were high in MARTI. We designed Study 4 to address all of these limitations.

Study 4: MARTI, anger, and social rejection in work groups

Study 4 examined how individual differences in MARTI affected *dyadic relationships* in actual work groups. In these dyadic relationships, we examined the MARTI of each individual group member (referred to as the "focal group member") and the reactions of other group members to this person while controlling for the focal group member's negative affect. This approach allowed us to test the generalizability of our theory across levels of analysis (Chen, Bliese, & Mathieu, 2005). Study 4 also tested a possible mechanism that could lead others to reject a high MARTI group member. We argue that high MARTI individuals can provoke anger in others because they violate the widely accepted norm of interpersonal trust. Since most people tend to hold favorable self-views (e.g., being trustworthy; Taylor & Brown, 1988), people who threaten these views can elicit negative emotions like anger from the party who perceives the threat (Tavris, 1982). Importantly, a person does not need to have been harmed by the motivated individual to feel

angry about being perceived in a socially undesirable way (Ohbuchi et al., 2004). When people experience anger about being perceived as having malevolent intent or being untrustworthy, we expect them to view the suspicious person less favorably and to be more motivated to socially reject them as a result (Bies & Tripp, 2002). Thus, we hypothesized the following:

Hypothesis 4. The relationship between a focal group member's motivation to acquire relationship-threatening information and another group member's desire to socially reject the focal group member is mediated by the other group member's anger at the focal group member.

Method

Participants and procedure

Participants ($N = 155$; 48% female; mean age 22 years, $SD = 3.6$) were recruited from two third-year undergraduate business courses and received course credit for their participation. In both courses, student work groups were formed at the beginning of the semester and worked together throughout the semester. Participation was voluntary and the response rate for the survey was 59%. No significant differences were found between responders and non-responders. Hard-copy survey materials were distributed to all students in the course at the end of the semester. Individuals who participated in the study were asked to complete the materials, seal them in a provided envelope, and return the envelopes to a locked deposit box. We used a multi-source design in this study to generate dyad-level data for each group member. The survey asked individuals to complete measures related to themselves (e.g., MARTI in groups, negative affectivity) as well as rating each of their fellow group members on the dependent measures (anger, social rejection). All participants were provided with a numeric identifier that they used to complete the survey and were assured of the confidentiality of their responses.

Measures

Focal group members' MARTI. We asked respondents to answer the same six items as in the previous studies ($\alpha = .93$).

Others' anger at focal group member. We used Spielberger's (1996) six-item measure to assess this construct. Respondents were asked to indicate the extent to which they felt anger-related emotions about the focal group member. Sample items were: "I feel mad at this person" and "I feel angry." Items were measured on a 7-point scale, with responses ranging from not at all (1) to a great deal (7) and they were averaged ($\alpha = .96$).

Others' social rejection of focal group member. We assessed this construct by asking respondents about their desire to continue working with the focal group member using the question: "If you had the opportunity, please indicate how much you would like to work with this person in the future." The response set ranged from never (1) to all the time (7). We reverse-coded this variable so that high scores indicated greater social rejection desires.

Focal group members' negative affect (control variable). We measured this construct using the negative items from the Positive and Negative Affectivity Scale (PANAS; Watson, Clark, & Tellegen, 1988). The response set ranged from not at all (1) to a great deal (7). Group members were asked to indicate how often (generally) they felt each of a list of ten negative affective states (e.g., afraid, upset, distressed, irritable) during the semester. These responses were averaged ($\alpha = .90$).

Table 4
Study 4: Means, standard deviations, and zero-order correlations of study variables.

Variables	Mean	SD	1	2	3
1. MARTI of focal group member	3.49	2.19			
2. Anger at focal group member	1.61	.79	.20*		
3. Social rejection of focal group member	2.38	1.21	.16	.50***	
4. Negative affect of focal group member	2.42	.98	-.05	.05	.30***

Note. *N* = 114. Correlations are between-individual correlations.

* *p* < .05.

*** *p* < .001.

Table 5
Study 4: Variance components of anger and social rejection scores.

	Anger at focal group member	95% CI	Social rejection of focal group member	95% CI
Within focal group member variance	1.12	.89, 1.41	1.64	1.31, 2.07
Between focal group member variance	.04	.00, 2.26	.69	.38, 1.23
Within group variance	1.03	.86, 1.25	2.12	1.76, 2.55
Between group variance	.14	.05, .41	.22	.07, .69

Note. *N* = 252 observations.

Results

Table 4 shows descriptive statistics and zero-order correlations among the study variables. After removing eight individuals who were in both courses, and cases with incomplete data, 114 participants were used in the main analysis. These participants were members of 35 study groups and there were a total of 252 anger/social rejection observations available for the study participants. These 252 observations made for an average of 2.2 observations per focal participant (*Range* = [1,5]). In the sample used for analysis, there were 7.2 anger and social rejection observations per group (*Range* = [1,16]). The nested structure of our data (anger

and social rejection ratings were nested within focal group members who were nested within groups) made for a three-level multilevel data structure. Nested data is often statistically dependent, leading to biased estimates in conventional OLS-type regressions (Snijders & Bosker, 1999). Indeed, the variance components of anger and social rejection scores at the focal participants and group level reported in Table 5 suggest statistical dependencies of the observations. Multilevel regression analysis accounts for the nested data structure and statistical dependence of observations (Snijders & Bosker, 1999) and allows for missing observation data (e.g., Hox, 2002).

We used STATA 11.0 to estimate a fixed effects (γ 's) multilevel regression model, testing our argument that the focal group member's MARTI was related to others' social rejection and that this relationship was mediated by others' anger toward the focal group member (see Table 6). We centered negative affect and MARTI around their grand mean (Snijders & Bosker, 1999) because these were variables that did not vary within focal group members. However, since we had multiple anger ratings for each participant, we centered this variable on the focal group member's mean. Given our conceptual interest in explaining the social reactions that a focal group member's MARTI elicited in a particular fellow group member, within-person centering was conceptually most appropriate (Kreft, De Leeuw, & Aiken, 1995). However, one drawback of this centering technique is that it can lead to underspecified multilevel models by eliminating between-group member variance in anger ratings, which may covary with both the independent and dependent variables. Consequently, the average level of anger was controlled for when entering the within-person centered anger

Table 6
Study 4: Multilevel regression results for the motivation to acquire relationship-threatening information of Focal Group Member Predicting Social Rejection of Focal Group Member Mediated by Anger at Focal Group Member.

Variable	Model 1: Social rejection of focal group member		Model 2: Anger at focal group member		Model 3 Social rejection of focal group member	
	γ	95% CI	γ	95% CI	γ	95% CI
Negative affect of focal group member	.39***	.18, .60	.03	-.11, .17	.36***	.18, .54
ΔR^2		.06		.00		.06
LR χ^2 test	11.95***		.27		11.95***	
MARTI of focal group member	.10*	.00, .19	.07*	.01, .13	.05	-.03, .15
ΔR^2		.02		.01		.02
LR χ^2 test	4.07*		4.68*		4.07*	
Average of anger at focal group member					.78***	.54, 1.02
Anger at focal group member					.37***	.17, .56
ΔR^2					.20	
LR χ^2 test					47.32***	
R^2	.08		.01		.28	

Note. *N* = 252 observations. Fixed effects multilevel regression model with observations nested within focal group members and focal group members nested within groups. LR χ^2 test indicates model fit increase via log-likelihood difference test. R^2 = variance explained, computed as the proportional reduction in the Level 1 variance component of dependent variable scores. Within each model, the model fit of the control variables was compared with the fit of a null (intercept only) model. CI = 95% bias corrected confidence interval.

* *p* < .05.

** *p* < .01.

*** *p* < .001.

variable into the multilevel regression model (Kreft et al., 1995). To evaluate whether study variables significantly add to the explanation of the dependent variable scores, we calculated χ^2 -based likelihood ratio (LR) tests (Snijders & Bosker, 1999).

Consistent with Baron and Kenny's (1986) criteria for mediation, the focal group member's MARTI scores predicted social rejection desires (in terms of the group members' intentions to work with the focal group member in the future) that they experienced from another group member ($\gamma = .10, z = 2.03, p < .05$) (Model 1). This model had a superior fit to the model containing the control variable only (LR χ^2 (df = 1) = 4.07, $p < .05$). The results of Model 2 show that focal group members' MARTI scores predicted group members' anger at the focal group member (the mediator) ($\gamma = .07, z = 2.19, p < .05$); this model had a superior fit to the model containing the control variable (LR χ^2 (df = 1) = 4.68, $p < .05$). Finally, when the focal group member's MARTI scores and the group members' anger at the focal group member were both entered into the multilevel regression model (Model 3), the focal group member's MARTI scores no longer predicted others' social rejection of the focal group member ($\gamma = .05, z = 1.12, ns$), but the effect of the group members' anger at the focal group member on rejection was still significant ($\gamma = .37, z = 3.69, p < .001$). Moreover, entering the group members' anger at the focal group member did significantly improve the fit of the model (LR χ^2 (df = 2) = 47.32, $p < .001$). We repeated the bootstrapping procedure described in Study 2 to calculate bias-corrected confidence intervals for the indirect effect (Edwards & Lambert, 2007). These analyses provided further support for Hypothesis 4 because the 95% bias-corrected confidence interval of the indirect effect ($P = .03$) did not contain zero [.01, .06].

Discussion

Study 4 replicated the results of Study 3 in a field setting and extended them by showing that anger mediated the relationship between a focal group member's MARTI scores and another group member's desire to reject him or her. These findings were obtained after controlling for the focal group member's negative affect, suggesting that a group member's reactions toward individuals high in MARTI were not driven by displays of negative affect. Another contribution of Study 4 is that it tested the social interactionist perspective at a dyadic level of analysis, thereby providing evidence for the robustness and breadth of our theory's predictions across levels (Chen et al., 2005).

General discussion

Five studies using field and laboratory methods tested a model of how the motivation to acquire relationship-threatening information in groups (MARTI) affects paranoid thought patterns, suspicion behaviors, and social rejection. We tested our model in two stages. In Stage 1, we found that those who scored high as compared to low on a MARTI scale made more sinister attributions in ambiguous situations (Study 1a). We also found that people for whom MARTI was salient reported more paranoid cognitions in which the self was seen as the target of coworkers' malevolence (Study 1b). In a field setting with employees from diverse industries, we constructively replicated the connection between MARTI and paranoid cognitions and demonstrated that paranoid cognitions mediate the relationship between MARTI and suspicion behaviors toward coworkers (Study 2).

In Stage 2 (Studies 3 and 4), we examined the impact of MARTI on others' behaviors toward focal group members who varied in their MARTI. Study 3 found that participants were likely to exclude prospective group members who described themselves as being high in MARTI. Participants also planned to socially reject the high

MARTI individuals if they happened to become members of their group. In Study 4, we replicated and extended these findings by showing that group members were less desirous of working again with people who scored high on the MARTI scale. The relationship between a focal group member's MARTI and social rejection was mediated by the others' anger toward the focal group member. Taken together, Studies 3 and 4 support our argument that MARTI leads to socially maladaptive outcomes.

Theoretical implications

By examining the individual and social implications of MARTI, we make three main contributions to the organizational behavior literature. First, past work suggests that some individuals exhibit heightened levels of paranoia that can signal distrust and violate interpersonal norms (Kramer, 2001). However, one limitation of research in these areas has been that they *assume*, but do not empirically test, the cognitive and behavioral correlates that can explain the relationship between individual characteristics and becoming a target of others' harmful actions. Moreover, past research has not firmly established the causal chain leading from individual characteristics to interpersonal harm (Aquino & Thau, 2009). Our studies address these gaps through the use of experimental designs that allow for stronger causal inferences. We further examined the social interactionist nature of interpersonal harm (Aquino & Lamertz, 2004; Duffy et al., 2002) by using a dyadic design in Study 4 that allowed us to model how one party in a relationship might influence the responses of another party.

Second, our research contributes to the literature on workplace victimization by examining the motivational, cognitive, and behavioral mechanisms that can lead to social rejection. Past research based on a victim precipitation model suggests that people can become targets of interpersonal harm by eliciting (often unconsciously) hostility as a result of their own actions (Aquino & Bradfield, 2000; Elias, 1986; Tepper, Duffy, Henle, & Lambert, 2006). Consistent with this perspective, we found that people who are highly motivated to acquire relationship-threatening information provoke anger and are socially rejected as a result. Although previous studies have been unclear about the motives of the target (i.e., *why* would people act in ways that provoke harm?), our model provides one clear answer to this question; namely, they want to reduce social uncertainty.

Finally, our results contribute to research on self-defeating behavior in groups (Thau, Aquino, & Poortvliet, 2007). Rational models of group behavior suggest that people pursue goals that are beneficial to the self. Our research challenges this assumption by showing how group members might unknowingly produce self-defeating consequences when they attempt to detect interpersonal harm in groups. Importantly, they seek such information for a seemingly rationale purpose of protecting themselves from potential harm-doers. Our results are consistent with models of self-fulfilling prophecies of paranoia in clinical psychology (Cameron, 1943; Lemert, 1962) and more recent research on organizational distrust (Creed & Miles, 1996; Kramer, 1994; Masuch, 1985), which suggest that the behaviors of paranoid and distrustful individuals may actually undermine their goals, provoke distrust from others, and ultimately lead individuals to be socially rejected.

Limitations and directions for future research

There are some limitations of our studies that suggest fruitful directions for future research. First, we examined the influence of this motivation in somewhat benign environments (e.g., office lunch room, laboratory groups, and student project groups). We found that MARTI resulted in maladaptive consequences. However, it is possible that in hostile environments, the potential cost of not

trusting those who should be trusted might be outweighed by the potential cost of trusting those who should not be trusted (Haselton & Buss, 2000). In such situations, a high MARTI may be rational and unbiased (e.g., the individual has been interpersonally harmed in the past) and members of such groups might be willing to tolerate distrustful and paranoid behaviors because they also see them as prudent and helpful in increasing the group's chances of goal attainment and survival. Future research should investigate whether there are group situations in which MARTI can be adaptive.

Second, although Study 1a, Study 1b, Study 1b's constructive replication, and Study 3 provide evidence of causality, the cross-sectional design of Studies 2 and 4 do not permit causal inferences. Although we predicted directional relationships, it is possible that these relationships are bidirectional and/or self-reinforcing. For example, perhaps individuals who have been harmed in the past are more likely to be motivated to acquire relationship-threatening information. Future research should examine these questions with longitudinal designs in order to provide (a) further evidence of causality and (b) insights into the process through which MARTI can develop.

Finally, although the predicted relationships were largely supported, the effect sizes were modest. We suggest these modest effects are nevertheless relevant because the phenomena to which they pertain are practically important. For example, at an individual level, paranoid cognitions and social rejection are highly aversive and distressing experiences that have negative implications for individual well-being (Eisenberger, Lieberman, & Williams, 2003), learning (Kramer, 1998), and performance (Baumeister, Twenge, & Nuss, 2002). Also, to the extent that rejection influences individual productivity and citizenship behaviors (Ferris, Brown, Berry, & Lian, 2008; Thau et al., 2007), MARTI may have organizational-level consequences. This may be particularly true if these effects are compounded over time. For example, in newly formed groups, group members may be willing to overlook a statement, conversation, or action revealing a high MARTI individual's motives as an isolated episode (e.g., "That was a weird comment, but he is under a lot of stress"). However, group members may come over time to recognize a pattern of paranoid thoughts and behaviors, leading to a larger effect of MARTI on anger and social rejection. Thus, future research should examine the cumulative effects of MARTI over time.

Practical implications and directions for future research

As noted above, our studies shed light on one characteristic that might make group members a target of harm by their coworkers. Although high levels of paranoid cognitions, suspicion, and social rejection are somewhat rare in our data, the observed relationships can inform other related but more common phenomena. For example, while the occurrence of outright exclusion is generally infrequent, the significant difference in social rejection between high and low MARTI individuals tells us that individuals high in MARTI are ultimately seen as less desirable group members than their low MARTI peers. In practical terms, this may translate into milder but more frequent forms of social rejection such as being chosen less often for peer-selected groups, not being invited to informal social events with colleagues (e.g., after-work drinks), and being ignored in meetings. Developing a better understanding of what drives people to think and act in ways that can provoke others to treat them badly can help people to regulate their thoughts and actions better so as to prevent themselves from becoming targets of the very behaviors that they seek to avoid.

In addition to the consequences for the individual, our results have implications for group performance and satisfaction. Specifically, our results indicated that group members are angered by and

tend to socially reject individuals who are motivated to acquire relationship-threatening information. This is not only detrimental for the rejected individual but also for the group, since previous research has found that such relational conflict within groups disrupts group processes (e.g., Amason, 1996; Jehn, 1995) and reduces group satisfaction and performance (e.g., De Dreu & Weingart, 2003; Li & Hambrick, 2005; Rau, 2005). By understanding the motivation behind these behaviors, it may be possible to mitigate negative consequences for the group. For example, one avenue for future research would be to investigate potential interventions to reduce the negative consequences related to the motivation to acquire relationship-threatening information. It is possible that finding ways of educating groups about the consequences of this motivation and the importance of trust in group relationships might decrease the extent to which individuals are motivated to acquire relationship-threatening information or alter how they react to individuals with this motivational orientation.

A final practical question is how high MARTI individuals set about detecting interpersonal harm and undermining. While our studies suggest that high MARTI individuals engage in communication patterns and/or behaviors that (perhaps unintentionally) signal to others their interest in acquiring relationship-threatening information, it is possible that there is variation in the types of strategies and tactics that high MARTI individuals use to detect whether or not they have been interpersonally harmed. For example, some individuals might use direct strategies (e.g., confronting group members about their intentions and actions), while others use indirect strategies (e.g., picking up on social cues, listening to group members' conversations). The type of strategy used might influence the consequences they experience: high MARTI individuals who use less visible strategies may provoke less anger and social rejection than individuals who engage in highly visible tactics. There may also be interesting moderating effects of other personality variables with MARTI that influence the types of strategies used. High self-monitors who are motivated to acquire relationship-threatening information might be more subtle and experience less social rejection than other high MARTI individuals. Future research investigating these moderators (e.g., strategies and personality) might help us understand how to mitigate the negative social consequences of having a high motivation to acquire relationship-threatening information.

Conclusions

A fundamental problem that people face in groups is that of social uncertainty; it is difficult to know whether others' intentions toward us are malign or benign. To manage this uncertainty, some individuals may be motivated to seek information about whether others have said unkind, unfair, critical, and intimate details about them to others. However, our research indicates that wanting to know this kind of information can lead to maladaptive outcomes for individuals, such as paranoid thought and suspicion behaviors. Moreover, other group members may react to these people with anger and by trying to reject them socially. Taken together, our results suggest that individuals high on MARTI may in some ways provoke the very harm they are trying to avoid.

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References

- Affifi, W. A., Dillow, M. R., & Morse, C. (2004). Examining predictors and consequences of information seeking in close relationships. *Personal Relationships*, 11(4), 429–449.
- Amason, A. C. (1996). Distinguishing the effects of functional and dysfunctional conflict on strategic decision making: Resolving a paradox for top management teams. *Academy of Management Journal*, 39(1), 123–148.
- Andersson, L. M., & Pearson, C. M. (1999). Tit for tat? The spiraling effect of incivility in the workplace. *Academy of Management Review*, 24(3), 452–471.
- Aquino, K., & Bradfield, M. (2000). Perceived victimization in the workplace. The role of situational factors and victim characteristics. *Organization Science*, 11(5), 525–537.
- Aquino, K., Grover, S., Bradfield, M., & Allen, D. (1999). The effects of negative affectivity, hierarchical status, and self-determination on workplace victimization. *Academy of Management Journal*, 42(3), 260–272.
- Aquino, K., & Lamertz, K. (2004). A relational model of workplace victimization: Social roles and patterns of victimization in dyadic relationships. *Journal of Applied Psychology*, 89(6), 1023–1034.
- Aquino, K., & Thau, S. (2009). Workplace victimization: Aggression from the target's perspective. *Annual Review of Psychology*, 60, 717–741.
- Averill, J. R. (1973). Personal control over aversive stimuli and its relationship to stress. *Psychological Bulletin*, 80(4), 286–303.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
- Baumeister, R. F., Twenge, J. M., & Nuss, C. K. (2002). Effects of social exclusion on cognitive processes: Anticipated loneliness reduces intelligent thought. *Journal of Personality and Social Psychology*, 83(4), 817–827.
- Becker, J., Schwartz, C., Saris-Baglama, R. N., Kosinski, M., & Bjorner, J. B. (2007). Using item response theory (IRT) for developing and evaluating the pain impact questionnaire (PIQ-6™). *Pain Medicine*, 8(3), 129–144.
- Beehr, T., & Bhagat, R. (1985). *Introduction to human stress and cognition in organizations*. New York: Wiley.
- Bennett, R. J., & Robinson, S. L. (2000). Development of a measure of workplace deviance. *Journal of Applied Psychology*, 85(3), 349–360.
- Bies, R. J., & Tripp, T. M. (2002). “Hot flashes, open wounds”: Injustice and the tyranny of its emotions. In S. W. Gilliland, D. D. Steiner, & D. P. Skarlicki (Eds.), *Emerging perspectives on managing organizational justice* (pp. 203–224). Greenwich, CT: Information Age.
- Boye, M. W., & Jones, J. W. (1997). Organizational culture and employee counterproductivity. In R. A. Giacalone & J. Greenberg (Eds.), *Antisocial behavior in organizations*. Thousand Oaks, CA: Sage.
- Burger, J. M., & Cooper, H. M. (1979). The desirability of control. *Motivation and Emotion*, 3(4), 381–393.
- Cameron, N. (1943). The paranoid pseudo-community. *The American Journal of Sociology*, 49(1), 32–38.
- Carlsmith, J. M., Ellsworth, P., & Aronson, E. (1976). *Methods of research in social psychology*. Reading, MA: Addison-Wesley.
- Chen, G., Bliese, P. D., & Mathieu, J. E. (2005). Conceptual framework and statistical procedures for delineating and testing multilevel theories of homology. *Organizational Research Methods*, 8(4), 375–409.
- Cialdini, R. (1996). *Social influence and the triple tumor structure of organizational dishonesty*. New York: Russel Sage.
- Cohen, J., Cohen, P., West, S., & Aiken, L. (2003). *Applied multiple regression/correlational analysis for the behavioral sciences*. Mahwah, NJ: Lawrence Erlbaum.
- Colby, K. M. (1981). Modeling a paranoid mind. *Behavioral and Brain Sciences*, 4(4), 515–534.
- Coyne, J. C., & Gotlib, I. H. (1983). The role of cognition in depression: A critical appraisal. *Psychological Bulletin*, 94(3), 472–505.
- Creed, W. D., & Miles, R. E. (1996). *Trust in organizations: A conceptual framework linking organizational forms, managerial philosophies, and the opportunity costs of controls*. Thousand Oaks, CA: Sage.
- Curtis, L. (1974). Victim precipitation and violent crimes. *Social Problems*, 21(4), 594–605.
- De Dreu, C. K. W., & Steinel, W. (2006). *Social decision making in fuzzy situations: Motivated decision making and strategic choice*. London: Routledge.
- De Dreu, C. K. W., & van Lange, P. A. M. (1995). The impact of social value orientations on negotiator cognition and behavior. *Personality and Social Psychology Bulletin*, 21(11), 1178–1188.
- De Dreu, C. K. W., & Weingart, L. R. (2003). Task versus relationship conflict, team performance, and team member satisfaction: A meta-analysis. *Journal of Applied Psychology*, 88(4), 741–749.
- Dodge, K. A. (1980). Social cognition and children's aggressive behavior. *Child Development*, 51(1), 162–170.
- Dodge, K. A., & Frame, C. L. (1982). Social cognitive biases and deficits in aggressive boys. *Child Development*, 53(3), 620–635.
- Duffy, M. K., Ganster, D. C., & Pagon, M. (2002). Social undermining in the workplace. *Academy of Management Journal*, 45(2), 331–351.
- Edwards, J. R., & Lambert, L. S. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods*, 12(1), 1–22.
- Einarsen, S., Raknes, B. I., & Matthiesen, S. M. (1994). Bullying and harassment at work and their relationships to work environment quality: An exploratory study. *The European Work and Organizational Psychologist*, 4(4), 381–401.
- Eisenberger, N. I., Lieberman, M. D., & Williams, K. D. (2003). Does rejection hurt? An fMRI study of social exclusion. *Science*, 302(5643), 290–292.
- Elias, R. (1986). *The politics of victimization: Victims, victimology, and human rights*. New York: Oxford University Press.
- Elliot, A. J., & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology*, 72(1), 218–232.
- Epps, J., & Kendall, P. C. (1995). Hostile attributional bias in adults. *Cognitive Therapy & Research*, 19(2), 159–178.
- Felson, R., & Steadman, H. (1983). Situational factors in disputes leading to criminal violence. *Criminology*, 21(1), 59–74.
- Fenigstein, A., & Vanable, P. A. (1992). Paranoia and self-consciousness. *Journal of Personality and Social Psychology*, 62(1), 129–138.
- Ferris, D. L., Brown, D. J., Berry, J. W., & Lian, H. (2008). The development and validation of the workplace ostracism scale. *Journal of Applied Psychology*, 93(6), 1348–1366.
- Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82(6), 878–902.
- Fiske, S. T., & Taylor, S. E. (2008). *Social cognition: From brains to culture*. Boston: McGraw-Hill.
- Freeman, D., Garety, P. A., Bebbington, P. E., Smith, B., Rollinson, R., Fowler, D., et al. (2005). Psychological investigation of the structure of paranoia in a non-clinical population. *British Journal of Psychiatry*, 186(5), 427–435.
- Glomb, T. M. (2002). Workplace anger and aggression: Informing conceptual models with data from specific encounters. *Journal of Occupational Health Psychology*, 7(1), 20–36.
- Harman, H. H. (1976). *Modern factor analysis* (3rd ed.). Chicago: University of Chicago Press.
- Haselton, M. G., & Buss, D. M. (2000). Error management theory: A new perspective on biases in cross-sex mind reading. *Journal of Personality and Social Psychology*, 78(1), 81–91.
- Heilbrun, A. B. Jr., (1968). Cognitive sensitivity to aversive material stimulation in late-adolescent males. *Journal of Consulting and Clinical Psychology*, 32(3), 326–332.
- Hox, J. (2002). *Multilevel analysis: Techniques and applications*. Mahwah, NJ: Lawrence Erlbaum.
- Ickes, W., Dugosh, J. W., Simpson, J. A., & Wilson, C. L. (2003). Suspicious minds: The motive to acquire relationship-threatening information. *Personal Relationships*, 10(2), 131–148.
- Jackson, C. L., & Lepine, J. A. (2003). Peer responses to a team's weakest link: A test and extension of Lepine and Van Dyne's model. *Journal of Applied Psychology*, 88(3), 459–475.
- Jehn, K. A. (1995). A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly*, 40(2), 256–282.
- Klayman, J., & Ha, Y.-W. (1987). Confirmation, disconfirmation, and information in hypothesis testing. *Psychological Review*, 94(2), 211–228.
- Kramer, R. M. (1994). The sinister attribution error: Paranoid cognition and collective distrust in organizations. *Motivation and Emotion*, 18(2), 199–230.
- Kramer, R. M. (1998). Paranoid cognition in social systems: Thinking and acting in the shadow of doubt. *Personality & Social Psychology Review*, 2(4), 251–275.
- Kramer, R. M. (1999). Trust and distrust in organizations: Emerging perspectives, enduring questions. *Annual Review of Psychology*, 50(1), 569–598.
- Kramer, R. M. (2001). Organizational paranoia: Origins and dynamics. *Research in Organizational Behavior*, 23, 1–42.
- Kramer, R. M. (2002). When paranoia makes sense. *Harvard Business Review*, 80(7), 62–69.
- Kreft, I. G. G., De Leeuw, J., & Aiken, L. S. (1995). The effect of different forms of centering in hierarchical linear models. *Multivariate Behavioral Research*, 30(1), 1–21.
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108(3), 480–498.
- Lemert, E. M. (1962). Paranoia and the dynamics of exclusion. *Sociometry*, 25(1), 2–20.
- Li, J., & Hambrick, D. C. (2005). Factional groups: A new vantage on demographic faultlines, conflict, and disintegration in work teams. *Academy of Management Journal*, 48(5), 794–813.
- Locascio, J. J., & Snyder, C. R. (1975). Selective attention to threatening stimuli and field independence as factors in the etiology of paranoid behavior. *Journal of Abnormal Psychology*, 84(6), 637–643.
- Long, S. J., & Freese, J. (2006). *Regression models for categorical dependent variables using Stata*. College Station, TX: Stata Press.
- Masuch, M. (1985). Vicious circles in organizations. *Administrative Science Quarterly*, 30(1), 14–33.
- Miller, S. M. (1987). Monitoring and blunting: Validation of a questionnaire to assess styles of information seeking under threat. *Journal of Personality and Social Psychology*, 52(2), 345–353.
- Molm, L., & Cook, K. (1995). *Social exchange and exchange networks*. Needham Heights, MA: Allyn & Bacon.
- O'Driscoll, M. P., & Beehr, T. A. (1994). Supervisor behaviors, role stressors, and uncertainty as predictors of personal outcomes for subordinates. *Journal of Organizational Behavior*, 15(2), 141–155.
- Ohbuchi, K.-I., Tamura, T., Quigley, B. M., Tedeschi, J. T., Madi, N., Bond, M. H., et al. (2004). Anger, blame, and dimensions of perceived norm violations: Culture, gender, and relationships. *Journal of Applied Social Psychology*, 34(8), 1587–1603.

- Pillutla, M. M., Malhotra, D., & Murnighan, J. K. (2003). Attributions of trust and the calculus of reciprocity. *Journal of Experimental Social Psychology*, 39(5), 448–455.
- Poortvliet, M. P., Janssen, O., Van Yperen, N. W., & Van de Vliert, E. (2007). Achievement goals and interpersonal behavior: How mastery and performance goals shape information exchange. *Personality and Social Psychology Bulletin*, 33(10), 1435–1447.
- Rau, D. (2005). The influence of relationship conflict and trust on the transactive memory: Performance relation in top management teams. *Small Group Research*, 36(6), 746–771.
- Robinson, S. L. (2008). Dysfunctional workplace behavior. In *Sa ge handbook of organizational behavior*. In J. Barling & C. L. Cooper (Eds.). *Micro-approaches* (Vol. 1, pp. 141–159). London: Sage.
- Rogers, T., & Bazerman, M. H. (2007). Future lock-in: Future implementation increases selection of “should” choices. *Organizational Behavior and Human Decision Processes*, 106(1), 1–20.
- Rosnow, R. L., & Rosenthal, R. (1985). *Contrast analysis: Focused comparisons in the analysis of variance*. Cambridge: Cambridge University Press.
- Schafer, S. (1968). *The victim and his criminal: A study in functional responsibility*. New York: Random House.
- Showers, C., & Cantor, N. (1985). Social cognition: A look at motivated strategies. *Annual Review of Psychology*, 36, 275–305.
- Snijders, T., & Bosker, R. (1999). *Multilevel analysis: An introduction to basic and advanced multilevel modeling*. London: Sage.
- Spielberger, C. D. (1996). *State-trait anger expression inventory*. Tampa, FL: Psychological Assessment Resources.
- Srull, T. K., & Wyer, R. S. (1979). The role of category accessibility in the interpretation of information about persons: Some determinants and implications. *Journal of Personality and Social Psychology*, 37(10), 1660–1672.
- Stanton, J. M., & Weiss, E. (2002). *Online panels for social science research: An introduction to The StudyResponse Project*. Syracuse, NY: Syracuse University School of Information Studies.
- Stevens, L., & Fiske, S. (1995). Motivation and cognition in social life: A social survival perspective. *Social Cognition*, 13(3), 189–214.
- Tavris, C. (1982). *Anger: The misunderstood emotion*. New York: Simon and Schuster.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103(2), 193–210.
- Tedeschi, J. T., & Felson, R. B. (1994). *Violence, aggression, and coercive actions*. Washington, DC: American Psychological Association.
- Tepper, B. J., Duffy, M. K., Henle, C. A., & Lambert, L. S. (2006). Procedural injustice, victim precipitation, and abusive supervision. *Personnel Psychology*, 59(1), 101–123.
- Thau, S., Aquino, K., & Poortvliet, P. M. (2007). Self-defeating behaviors in organizations: The relationship between thwarted belonging and interpersonal work behaviors. *Journal of Applied Psychology*, 92(3), 840–847.
- Trevino, L. K., Weaver, G. R., & Reynolds, S. J. (2006). Behavioral ethics in organizations: A review. *Journal of Management*, 32(6), 951–990.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063–1070.
- Whitson, J. A., & Galinsky, A. D. (2008). Lacking control increases illusory pattern perception. *Science*, 322(5898), 115–117.
- Zapf, D. (1999). Organisational, work group related, and personal causes of mobbing/bullying at work. *International Journal of Manpower*, 20(1–2), 70–85.