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Competition and Sensemaking in Ethical Situations

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Abstract

Intra-organizational competition was examined in relation to ethicality. The effect of a competitor being an in-group versus and out-group member, competitor offering uncorroborated or corroborated information, and the impact of the competitor expressing selfish, pro-group, or pro-organizational level goals were examined. Findings suggest that the way competition is presented has an important influence on how well individuals are able to make sense of an ethically ambiguous situation and render an ethical decision. A main effect for information sharing was found, such that when a competitor offers uncorroborated information participants made less ethical decisions and used pro-ethical reasoning strategies less often. An additional main effect was found suggesting that participants made more ethical decisions when working with an in-group competitor rather than an out-group competitor. Complex interactive effects were also found and discussed suggesting that pro-ethical reasoning strategies may be used less often depending on information corroboration, the competitor's relative group membership status, and the motives expressed by the competitor.

Keywords

ethics; ethical decision-making; reasoning strategies; sensemaking; competition; cooperation

Several lines of evidence suggest that competition may influence the way people go about making ethical decisions (e.g., Brass, Butterfield, & Skaggs, 1998; Chen & Choi, 2005; Dubinsky & Ingram, 1984; Ford & Richardson, 1994; Hegarty & Sims, 1978; Knight, 1923;

Trevino, 1986). On a theoretical level, Trevino (1986) outlined a series of propositions suggesting a variety of personal and situational influences on ethical decision-making. One factor she identified was competition. Trevino suggests that competition is likely to negatively influence an individual's propensity to make an ethical decision. In line with this assertion is work by Staw and Sz wajkowski (1975). In an examination of 105 cases of litigation against organizations (87 of which were Fortune 500 companies), they concluded that pressure and scarce resources were primary factors contributing to employees making questionable decisions. Additionally, Kulik, O'Fallon, and Salimath (2008) approached the issue using the Theory of Planned Behavior and have suggested that competing individuals can influence the degree to which those individuals will engage in unethical behavior. Similarly, in an experimental treatment of the impact of competition on ethical decision-making Hegarty and Sims (1978) gave 120 graduate business students a marketing task and found that ethical decision-making was lower when competition levels were increased.

In light of these findings, it seems clear that competition does impact ethical decision-making. However, other studies suggest there is no relationship between competition and ethical decision-making. For example, in a survey of salespeople, Dubinsky and Ingram (1984) found that the degree of competition did not impact salespeople reporting of 'ethical conflicts' (i.e., situations in which they felt pressure to act in a manner inconsistent with their own values). A similar null finding was obtained by Verbeke, Ouwerkerk, and Peelen (1996). Again, using a survey of sales people, these researchers found that competition had no significant impact on ethical decision-making as measured using responses to a series of vignettes.

As is often the case with conflicting findings in scientific literature, it is likely that these contradictory findings are the result of some variables that have yet to be discussed. This study seeks to further investigate the relationship between ethical decision-making and competition. Specifically, using an experimental paradigm, this work seeks to explore the effect cooperating with a competitor who expresses different types of motives, is identified as an in-group or out-group member, and shares information with a decision-maker in an ethically challenging situation.

Sensemaking

The cognitive processes by which information is acquired, interpreted, and used to guide action is called sensemaking (Thomas, Clark, & Gioia, 1993; Weick, 1995). One way in which sensemaking occurs is by the sharing of information between individuals. Within organizations, people in organizations take and interpret information in order to render decisions knowing that others will need to understand, approve, and/or implement those decisions (Burns & Stalker, 1961; Weick, 1995). Given that actors within organizations have a variety of goals that sometimes compete with each other, the manner in which information is received, the person from whom it is received, and goals of others within an organization are important to consider when interpreting information (Caughron, Shipman, Beeler, & Mumford, 2009).

Mumford and colleagues (cf., Antes, Brown, Murphy, Hill, Waples, Mumford, Connelly, & Devenport, 2007; Brock, Vert, Klugyte, Waples, Sevier, & Mumford, 2008; Klugyte, Marcy, Sevier, Godfrey, & Mumford, 2008; Mumford, Connelly, Brown, Murphy, Hill, Antes, Waples, & Devenport, 2008; Mumford, Connelly, Murphy, Devenport, Antes, Brown, Hill, & Waples, in press) have used a sensemaking approach as they have investigated sensemaking in ethical situations. These strategies were identified using several large samples of graduate students and college professors responding to a variety of survey items and ethical problem-solving vignettes (Antes, Brown, Murphy, Hill, Waples, Mumford, Connelly, & Devenport, 2007). What is notable about this research is that a set of strategies was identified that promote ethical decision-making. These 'pro-ethical' reasoning strategies have been shown to help individuals make sense of complex ethical problems; resulting in more ethical decisions being made.

Three of the strategies identified by Mumford and colleagues are of particular interest in the current study. They are 1) anticipating consequences for self and others, 2) considering others' perspectives, and 3) questioning your own and others' judgment. Extended definitions of these strategies are provided in Table 1. These three strategies are of a particularly social nature. As such, it is likely that social factors (such as information sharing, competition, expressing selfish motives, and group membership) will influence the degree to which people use them and the ethicality of the decisions they render.

Information Sharing

Verbeke, Ouwerkerk, and Peelen (1996) offer evidence that one variable that may influence ethical decision-making is information sharing. In their study of salespeople making ethical decisions they found that knowledge sharing within the organization and ethical decision-making were significantly related. More specifically, individuals responded more ethically on their measure of ethical decision-making when they also reported that information was shared more readily within the organization.

While it may be expected that individuals within an organization would share information with each other, this is often not the case. Interestingly, using a social network analysis of survey data collected at a large petrochemical company, Tsai (2002) found that information was shared more readily by competing groups within an organization under certain conditions. Groups that were competing with others for external market share were much more likely to share information with other competing groups than were groups who were competing with each other for internal resources.

Findings have suggested that information that can be corroborated with multiple group members is considered to be more accurate and relevant when compared with information that is only held by one group member (Postmes, Spears, & Cihangir, 2001; Wittenbaum, Hubbell, & Zuckerman, 1999). Using a group discussion activity, Stasser and Titus (1985) found that people are biased towards sharing information that confirms their previously held beliefs and that they tend to share information that confirms pre-existing knowledge rather than introducing novel, or uncorroborated, information. In reviewing literature investigating information sharing within groups, Wittenbaum, Hollingshead, and Botero (2004) suggest

individuals share information in a way that is motivated. That is to say, sharing information within a group is not done in an unbiased and objective fashion, rather, it is done in order to achieve goals that are often not related to the information sharing task.

One process identified by Wittenbaum, Hollingshead, and Botero (2004) is social comparison. This phenomenon, as described by Festinger (1954), occurs when people compare themselves to their peers in order to get a sense of how well they are performing or how well they are accepted in a group. This may be a particularly important part of the information sharing puzzle. Wittenbaum, Hubbell, and Zuckerman (1999) have found that group members who have access to the same information as other members tend to have more power than those who have access to unique information. That is, groups evaluate corroborated information more favorably than uncorroborated information. Greitemeyer and Schulz-Hardt (2003) found evidence suggesting this occurs because groups will form an early preference towards a solution that will be reinforced by other group members who have access to the same information. However, as Wittenbaum, Hollingshead, and Botero (2004) point out, when people share information with each other, they are pursuing two different goals. Not only are they looking to make a high quality decision, they are also working to establish their role, maintain, or better their standing in a group. This leads them to share or withhold information in a way that may or may not help the group make a high quality decision.

It is likely that the process of social comparison leads to a motivated evaluation of the information offered by other group members. If another group member shares information that is not corroborated with other group members it is relatively easy to devalue the information. This might help raise the standing of the person criticizing the information or devalue the social standing of the person offering uncorroborated information. While the exact mechanisms of motivated information sharing are continuing to be researched, what is clear is that social processes are at play when information is shared and evaluated and that information that is corroborated by multiple group members is seen more positively than unique, or uncorroborated, information.

These findings and the rational argument stemming from them suggest the following hypotheses:

Hypothesis 1a: Participants will use pro-ethical reasoning strategies to a greater or lesser degree based on whether or not they receive corroborated or uncorroborated information from a competitor.

Hypothesis 1b: Participants will make more or less ethical decisions based on whether or not they receive corroborated or uncorroborated information from a competitor.

Expressed Motivations

Given evidence that information sharing is done in a motivated fashion and that people evaluate information differently based on the degree to which it is corroborated or uncorroborated it stands to reason that people take the motivations of others into account when they receive information from them. In fact, much research has been devoted to

investigating how people evaluate other's motives and how this influences their decisions to trust or distrust them (Cook & Wall, 1980; Deutsch, 1960; Griffin, 1967; Kee & Knox, 1970; Mayer, Davis, & Schoorman, 1995; Lewicki, McAllister, Bies, 1998). It is likely that when a competitor shares information, regardless of whether it is corroborated or uncorroborated, that the recipient of this seemingly benevolent action will take time to consider the motives of the person sharing the information. When an individual expresses selfish motives it is likely that any seemingly benevolent action they take (such as sharing information) will be viewed less favorably than if they had expressed pro-group or pro-organizational motives. For example, a coworker who talks about needing to better his or her own standing in the company will be viewed differently than a coworker who talks about helping their group or benefiting the organization. Thus we can suggest the following hypotheses:

Hypothesis 2a: Participants will use pro-ethical reasoning strategies to a greater or lesser degree based on the degree to which a competitor expresses selfish, pro-group, or pro-organizational motives.

Hypothesis 2b: Participants will make more or less ethical decisions based on the degree to which a competitor expresses selfish, pro-group, or pro-organizational motives.

Group Membership

Several lines of research suggest that competition between members of the same organization may impact the way in which an individual interprets (i.e., makes sense of) her or his circumstances, and would thus be expected to impact their ethical decision-making as a result. For example, in a survey of employees at a university health center, Labianca, Brass, and Gray (1998) found that the relationships individuals had with people from an out-group, as well as from their in-group, influenced perceptions of conflict between groups within the organization. Additionally, Sherif and colleagues' work at Robber's Cave (Sherif, Harvey, White, Hood, & Sherif, 1961) suggests that individuals who belong to a competing out-group are often perceived as stereotypical out-group members rather than as individuals. Ruscher and Fiske (1990) found evidence suggesting that competing with an in-group member (as compared to an out-group member) can mitigate this stereotyping effect. As a result people tend to see in-group competitors as unique individuals rather than a non-unique, out-group member.

Taking these two lines of research together it stands to reason that people will evaluate information differently based on the relative group membership status of the person sharing it. In fact, it is likely that the cognitive mechanisms involved in evaluating the value of information shared by in-group and out-group competitors may begin to explain some of the inconsistencies in existing literature regarding the effect of competition on ethical decision-making. This leads us to the following hypotheses:

Hypothesis 3a: Participants will use pro-ethical reasoning strategies to a greater or lesser degree based on the in-group/out-group membership status of their competitor.

Hypothesis 3b: Participants will make more or less ethical decisions based on the in- group/out-group membership status of their competitor.

Lastly, the nature of organizations is an inherently complex one. It is an environment in which multiple individuals are pursuing multiple goals in a relatively dynamic set of circumstances. Similarly, a complex set of interactions are likely to result from the current study. Many of the interactions occurring here will be examined in a more or less exploratory manner using *post hoc* techniques. Given that research in this area is newly emerging it would be difficult, if not irresponsible to make specific predictions about these complex effects.

Method

Sample

The sample consisted of 228 undergraduate students (92 males and 136 females) drawn from an introductory psychology course at a large southwestern university. The study was announced via a website posting describing the study as a leadership problem-solving study. Three hours of research credit in their psychology courses were awarded for participation. The mean age of the participants was 19.2 years of age.

General Procedures

Upon arriving at the study location, participants read and signed an informed consent form. The study was conducted in a single 3-hour session divided into two blocks. The first block was half an hour long and involved a proctor guiding the participants through a series of timed individual difference measures. The second block was scheduled for two and a half hours. During this time, the participants were allowed to complete the remainder of the study materials at their own pace.

The primary experimental task was a low fidelity simulation (Motowidlo, Dunnette, & Carter, 1990) consisting of a scenario in which the participants assumed the role of a manager at a company that maintains a social networking website. The participants read a brief description of the company involved in the scenario, including a brief statement about the current circumstances the company was facing. Throughout the rest of the vignette, the participants read mock emails from the head of the company presenting four separate, albeit related, problems and asking for solutions for each problem. The participant is instructed by the head of the company to collaborate with a coworker who also sends emails to the participant in an effort to help solve the problems as they are presented. The participants then wrote their solution in the form of an email to the head of the company for each of the four problems presented.

Individual Difference Measures

Measures were administered in order to control for the role of individual differences upon the variables of interest. Participants' personality, intelligence, and gender were examined as covariates. Intelligence and gender were significant control measures for the strategy use manipulations and participant gender and conscientiousness were significant controls for the ethicality of decisions. The conscientiousness of participants as defined by the Big Five

personality measures (Goldberg, 1993), participant's gender was assessed through self-report, and participant scores on the Employee Aptitude Survey – Test #7 as described by Ruch, Stang, McKillip, and Dye (1994) were used as a measure of intelligence.

Experimental Manipulations

The experimental design used for this study was a between subjects design. Each participant responded to 4 different problems, but the manipulations within each problem scenario were held constant. This was done in order to examine the consistency of responding to different types of problems and to allow for one problem scenario to be removed from the study if participants responded to it differently than the other three. Upon examination of a 'scenario effect' none was found. This allowed the researchers to average each participant's ratings for all four scenarios together so that each participant received one rating on each of the dependent variables.

Competitor in-group, out-group status—The group membership status of the competitor relative to the participant, along with the other two manipulations, was written into each of the four scenarios included in the experimental vignette. The work group the participant's competitor belongs to is the first manipulation and it had two levels. In one condition the coworker is cast as a member of a rival work group within the organization (out-group competitor) in the other they are a coworker within their own division (in-group competitor). In both manipulations the company is portrayed as having problems turning a profit and downsizing is imminent and the participant is informed that only certain employees will be retained. The in-group and out-group status conditions differed in how they described the competitor:

In-group Status Condition:

Mark Pfeffer is a no nonsense leader who assists you in leading the Western North America Division of Matchbook. He was also one of the founding members of Matchbook. You often find his advice to be very helpful. He has brought a great deal of expertise to the company.

Out-group Status Condition:

Mark Pfeffer is a no nonsense leader who heads up the Eastern North America Division of the company. He is the highest level employee who was not part of the founding of Matchbook. He is an ambitious individual who brought a great deal of expertise to the company.

The status of the competitor was also reaffirmed in each subsequent email message in which the competitor mentions the division he works for with comments such as:

In-group Status Condition:

I don't know what you are finding but I asked around in our division about employee satisfaction.

Out-group Status Condition:

I don't know what you are finding in your division but I did some asking around about employee satisfaction in the Eastern Division.

The competitor mentions his relative group standing in such a way in each of four different scenarios the participants encounter. Thus the group status is mentioned to the participant at least five times (once with the initial set of instructions setting up the scenario and once each time the participant interacts with the competitor in solving a problem). Also, participants were given a post-experiment survey assessing the degree to which they perceived their competitor as being a member of their in-group or out-group. A significant difference was obtained for those who received the in-group manipulation compared to those who received the out-group manipulation ($M=2.49$, $SD=1.04$ vs. $M=3.40$, $SD=.94$; $t(95)=4.50$, $p<.01$).

Information Corroboration—In order to examine whether or not the source of information influenced a participant's propensity to use the pro-ethical cognitive reasoning strategies identified earlier and the subsequent ethicality of their decision-making the source of information was manipulated at two levels. In the first condition, the CEO of the company and the participant's competitor offer the same information. That is, the competitor's information is corroborated by a reputable external and neutral third party. For example in the corroborated information condition the participant receives the following excerpts regarding one of the problems they must resolve (matching statements are in bold).

From the CEO:

We had decent ratings for our healthcare benefits and employees having opportunities to get promoted. However, they rated their satisfaction with their managers, stress level, being treated fairly at work, and vacation time very low...

The feeling I have is that people are discouraged because they aren't having much success. As far as pay goes, we are one of the best paying companies in the state.

From the competitor:

Everyone I spoke to echoed what Brad said in his email. Employee morale is low because we haven't really had a lot of success lately. Basically, I think a lot of the people are just discouraged. I looked into the pay issue; the fact of the matter is that we are one of the best paying companies in the state.

In the second condition, the competitor offers half of the information about the problem and the CEO offers the other half. Thus in both conditions the exact same information is given to the participant the only difference is that in one case the information is corroborated by the CEO and in the other the competitor offers information that is uncorroborated by a third party. Notice in the examples below that the same information is offered in both conditions, the only difference is that the CEO and the competitor offer unique information and do not corroborate each other's information related to the problem.

From the CEO:

We had decent ratings for our healthcare benefits and employees having opportunities to get promoted. However, they rated their satisfaction with their managers, stress level, being treated fairly at work, and vacation time very low.

From the competitor:

Everyone I spoke to said employee morale is low because we haven't really had a lot of success lately. Basically, I think a lot of the people are just discouraged. I looked into the pay issue, the fact of the matter is that we are one of the best paying companies in the state.

Responses on a post experiment survey showed that participants in the uncorroborated information condition perceived that the competitor in the scenario gave additional information that the CEO in the organization did not offer. This is indicated by a significant t-test ($t(95)=3.45, p<.01$) between the two groups of participants with participants in the uncorroborated information condition scoring a mean of 3.17 ($SD=.48$) on a 5 point Likert-scale and participants in the corroborated information condition scoring a mean of 2.66 ($SD=.85$).

Competitor's motives—Lastly, a three-level manipulation was used to investigate how the motives of the participant's competitor influenced their cognition and ethical responding. In one condition the competitor expressed pro-organizational motives in their emails to the participant. In the second level of this manipulation the competitor expressed pro-work group motives and in the third they expressed overtly selfish motives. The following examples were drawn from the emails to the participant from the competitor.

Selfish Motives Condition

Anyway, if you can keep me posted on what you are finding that would be great, I have to watch out for me and mine as well.

Pro-Group Motives Condition (Out-group Variant)

After all, let me know if you have any information that will help the Eastern Division.

Pro-Group Motives Condition (In-group Variant)

After all, let me know if you have any information that will help the our division.

Pro-Organizational Motives Condition

After all, regardless of how things go, Matchbook is a great company and we have to do what we can to keep it going.

Responses on a post experiment survey demonstrated that participants in each of the three conditions perceived the competitors motives as intended. An ANOVA testing mean differences across the three conditions was conducted and was significant ($F(2,94)=17.43, p<.01$). *Post hoc* analysis showed that participants in the selfish competitor condition perceived the coworker as having the least amount of pro-organizational motives with a mean score of 2.71 ($SD=.659$) on a five point Likert scale. Those in the competitor with group motives condition scored a mean of 3.35 ($SD=.815$) for perceptions of pro-organizational motives and those in the organizationally motivated coworker condition scored a mean of 3.81 ($SD=.710$). T-tests between each of these groups were significant at the $p<.01$ level.

Dependent Variables

Content coding—Content coding was used to measure the use of pro-ethical reasoning strategies and ethicality of the participant's final decisions on each scenario. The four judges involved in the content coding effort were all senior-level graduate students who received over 20 hours of training. During this training, the judges were introduced to operational definitions regarding the strategies and ethicality. Additionally, time was spent during each training session rating materials and comparing ratings on a subset of materials drawn from the participants' actual responses to the stimulus materials. Ratings for each construct were made on a 5-point Likert scale. Discussions were held when judges did not agree on how to rate a given response until the judges had a minimum reliability of .70 for each dependent variable being rated on a sample of ten items drawn from the participant materials. After this was achieved, the judges were given the rest of the participant materials to rate and reliabilities were checked again at the end of the study. The judges were blind to the participants' conditions. Judges were each given a manual describing the rating strategy, which included definitions of each construct, markers that highlighted key aspects of the construct, and example materials drawn from participant responses representing high, medium, and low performance on each construct.

Strategy use—With regard to coding the strategies, the judges were familiarized with the definitions for each strategy, as described previously in Table 1. For example, the anticipating consequences strategy was defined as the process by which “thinking about many possible outcomes such as consequences for others, and short-term and long term outcomes based upon possible decision alternatives.” Some of the markers for this strategy included “thinking about the benefits/consequences of potential outcomes,” “considering consequences for themselves and others,” and “considering best-case and worst-case outcomes.” Four prompts were given after each of the four problems participants worked to solve. Three of them were used to code responses for strategy use. They were “Briefly describe the problem,” “List the causes of the problem,” and “What factors need to be taken into account when solving the problem.” Interclass correlation coefficients (ICCs) were calculated to assess the inter-rater reliability for each of the strategies that were coded. Reliabilities for anticipating consequences was .76, for considering others was .79, and for questioning judgment was .75.

Ethicality—Judges used a 5-point Likert type scale to rate the ethicality of responses to each of the four scenarios presented to the participants. An examination of existing literature regarding the nature of ethical responses in ambiguous circumstances revealed three aspects of problem solutions that should be considered when judging the ethicality of a response (Anderson, 2003; Darke & Chaiken, 2005; Gilligan & Attanucci, 1988; Kahneman, 2003; Knaus, 2000; Moore & Lowenstein, 2004; Munro, Bore, & Powis, 2005; Schweitzer, De Church, & Gibson, 2005; Smetana, 2006; Street, Douglas, Geiger, & Martinko, 2001; Tenbrunsel & Messick, 2004; Turiel, 1983; Turiel, 1998; Yaniv & Kleinberger, 2000). First, is holding the welfare of others in high regard, this marker for ethicality was called ‘regard for others.’ Second, was making sure to fulfill personal obligations, this marker was called ‘attending to personal responsibilities.’ The third, and final, marker of ethicality was called ‘adherence to/awareness of social obligations’ and involved being mindful of norms, values,

duties, and guidelines within a given social system regardless of whether or not they represent personal values.

Judges were told to consider each of these three aspects of ethicality when making their ethicality rating for each response. Thus responses that knowingly hurt others, willfully disregarded personal commitments, and violated appropriate norms of expected behavior towards an individual or to social groups more generally (e.g., clients) were rated lower in ethicality than responses that either did not mention these things or, in the best case scenario, actively mentioned pursuing actions that took the welfare of others into account, respected personal obligations, and were mindful of broader social norms and values. The prompt after each problem that was used for coding the ethicality of participants' solutions was "How would you solve the problem." Interclass correlation coefficients were used to assess the reliability of the judges' ratings for ethicality. The average across the 4 scenarios was .766 indicating adequate reliability of judges ratings regarding the ethicality of decisions made by the participants.

Results

Strategy use findings

General results—Table 2 presents the correlations between ethicality and the strategy variables. It is of note that the ethicality variable correlated significantly with all five strategy use variables ($p < .01$). This would suggest that these findings have a low probability of being found by chance. In order to control for co-variation among predictors and the existence of other relevant control variables, a multivariate analysis of covariance (MANCOVA) was used to test hypotheses concerning the effects the manipulations had on strategy use and ethicality.

Table 3 presents the omnibus findings regarding the effect of the manipulations on participant strategy use. Participant scores on the Employee Aptitude Survey as well as participant gender were retained as covariates. As can be seen in Table 3, a significant two-way interaction was observed between the competitor's motives and the competitor's work group ($F(5,192)=3.00$; $p=.012$) manipulations and a three-way interaction for competitor's motives, information corroboration, and competitor's work group ($F(5,192)=2.35$; $p=.042$). It is worth noting that none of the main effects demonstrated significant effects. Thus, partial support for the hypotheses was generated by an interpretation of the interactions between the manipulations.

Table 4 presents the ANCOVA results for the strategy variables. As shown, a main effect for the information corroboration variable was detected for the use of the considering others and questioning judgment strategy ($F(1, 195) = 4.14$, $p < .043$ and $F(1,195) = 4.37$, $p < .038$, respectively). It should be noted however, that the MANCOVA omnibus test did not show a significant effect for information corroboration. Thus, interpreting significant ANCOVA results should be done with caution. Additionally, the effect of the interaction between the competitor's motives and competitor's work group manipulations was approaching significance on the degree to which participants used in the considering others strategy ($F(2,195) = 2.76$; $p = .066$). The three way interaction between competitor's motives,

competitor's work group, and information corroboration had a significant effect on participants' use of the questioning judgment strategy ($F(2,195) = 3.20$; $p = .043$). The three way interaction for the anticipating consequences and considering others strategy were approaching significance ($F(2,195) = 2.67$; $p = .072$ and $F(2,195) = 2.45$, $p = .089$ respectively)

Evidence regarding the effect of information corroboration—Hypothesis 1a suggested that the degree to which an individual received corroborated as compared with uncorroborated information from a competitor would influence their use of the pro-ethical reasoning strategies. As noted above, two main effects were found regarding the use of the considering other's strategy and the questioning judgment strategy that can be attributed to the information corroboration manipulation. Table 5 along with Figure 1 (considering others strategy) and Figure 2 (questioning judgment strategy) present the estimated marginal means for the main effect of the information corroboration manipulation on strategy use. In both cases a significant reduction in the use of the pro-ethical reasoning strategy occurs when a competitor offers uncorroborated information as compared to corroborated information.

In addition to these main effects, the *post hoc* analysis of the interactions between competitor's motives, information corroboration, and competitor work group provided evidence that may be considered partial support for this suggestion. Table 6 along with Figure 3, 4, and 5 present the estimated marginal means resulting from the three way interaction ANCOVA results for the anticipating consequences, considering others, and questioning judgment strategies, respectively. Participants working with a selfish, out-group competitor with uncorroborated information used the considering others ($M=2.30$, $SD=0.59$ vs. $M=2.70$, $SD=0.59$; $t(38)=-2.14$, $p<.05$) and questioning judgment ($M=1.58$, $SD=0.60$ vs. $M=2.06$, $SD=0.60$; $t(38)=-2.54$, $p<.01$) strategies significant less than those working with a selfish, out-group member with corroborated information. Apparently, a selfish, out-group competitor can hinder the use of the considering others and questioning judgment strategies but only when they express uncorroborated information.

Similarly, a significant difference was found for the anticipating consequences, questioning judgment, and considering others strategies when participants worked with an in-group competitor who expressed pro-group motives and offered uncorroborated information as compared with corroborated information (anticipating consequences: $M=1.93$, $SD=.67$ vs. $M=2.54$, $SD=.67$; $t(30)=-2.57$, $p<.01$; considering others: $M=2.53$, $SD=.60$ vs. $M=2.97$, $SD=.59$; $t(30)=-2.10$, $p<.05$; questioning judgment: $M=1.76$, $SD=.60$ vs. $M=2.28$, $SD=.60$; $t(30)=-2.46$, $p<.01$). A pro-group, in-group competitor offering corroborated information has three factors suggesting their actions are likely to be consistent with the decision-makers. However, when the information goes from being corroborated to uncorroborated a significant shift occurs which lowers the use of the anticipating consequences, considering others, and questioning judgment strategies. These findings would suggest partial support for hypothesis 1b that suggests that the degree to which a competitor offers corroborated (as compared to uncorroborated) information will influence the use of pro-ethical reasoning strategies. Apparently, the corroboration of information matters, but it matters when considered in concert with group membership status and expressed motives.

Evidence regarding the effect of expressed motivations—Hypothesis 2a

suggested that the motives a competitor expressed would have an impact on an individual's use of pro-ethical reasoning strategies. No main effects were significant for this manipulation, however, the *post hoc* analysis revealed some findings which suggest that expressing selfish, pro-group, or pro-organizational motives may have an effect on the use of pro-ethical strategies.

The *post hoc* analysis of the anticipating consequences, considering others, and questioning judgment variables found that in each case participants who worked with a selfish, out-group competitor with uncorroborated information used the pro-ethical reasoning strategies significantly less than those working with a person of the same profile but who expressed pro-organizational motives rather than selfish motives (anticipating consequences: $M=2.00$, $SD=.67$ vs. $M=2.37$, $SD=.67$; $t(36)=-1.73$, $p<.05$; considering others: $M=2.30$, $SD=.59$ vs. $M=2.75$, $SD=.59$; $t(36)=-2.34$, $p<.05$; questioning judgment: $M=1.58$, $SD=.60$ vs. $M=1.92$, $SD=.60$; $t(38)=-1.74$, $p<.05$). Additionally, participants working with a selfish, out-group competitor with uncorroborated information were also significantly less likely to use the questioning judgment and considering others strategies than participants working with the same person who expressed pro-group rather than selfish motives (considering others: $M=2.30$, $SD=.59$ vs. $M=2.68$, $SD=.59$; $t(38)=-2.04$, $p<.05$; questioning judgment: $M=1.58$, $SD=.60$ vs. $M=1.94$, $SD=.60$; $t(38)=-1.89$, $p<.05$).

A last line of evidence suggesting that the motives a competitor expresses influences the use of pro-ethical reasoning strategies stems from the two-way interaction between competitor motives and competitor group membership status. Table 7 and Figure 6 present the estimated marginal means for this interaction. A *post hoc* analysis found a significant difference in the use of the considering others strategy between participants working with a selfish out-group competitor compared with those working with an organizationally motivated out-group competitor ($M=2.50$, $SD=.60$ vs. $M=2.76$, $SD=.59$; $t(69)=-1.90$, $p<.05$). To be more specific, people appear to use the considering others strategy less when an out-group competitor expresses selfish motives as compared to one working with an in-group competitor expressing the same emotions. This would suggest two probable reasons for this effect. First, it is likely that a selfish out-group competitor reduces the use of the considering others strategy. In this case, not only is the competitor being viewed as an out-group member, which is known to cause negative stereotyping, but they are also expressing overtly selfish motives. Thus, there are two factors suggesting that the competitor's actions may need to be monitored for behavior that may harm others. This makes the decision-making process more complex than it would be if their competitor was not an out-group member or expressing selfish motivations. Second, it is possible that a selfish in-group competitor actually stimulates the use of the considering others strategy. In this case, there is no negative stereotyping effect from interacting with an out-group competitor. Thus, when the in-group member expresses a motivation to watch out for themselves it may actually increase the likelihood that the person they are communicating with will think about their concerns. This is, by definition, using the considering others strategy.

Evidence regarding the effect of group membership status—Hypothesis 3a

suggested that a competitor's group membership status would influence pro-ethical strategy

use. It is interesting to note that the *post hoc* analysis for the data presented in Table 7 and Figure 6 also found some support for an effect of group membership status on the use of the considering others reasoning strategy ($M=2.50$, $SD=.60$ vs. $M=2.86$, $SD=.60$; $t(69)=-2.53$, $p<.01$).

In addition to some partial support from the two-way interaction for the considering others strategy, some evidence suggesting that group membership status is an important consideration can be found by examining the *post hoc* findings for the three-way interactions for the anticipating consequences, considering others, and questioning judgment strategies.

A *post hoc* analysis found that participants who worked with a competitor who expressed pro-group motives and offered corroborated information were significantly different in their use of all three pro-ethical reasoning strategies based on whether the competitor was described as an in-group or out-group member (anticipating consequences: $M=2.09$, $SD=.67$ vs. $M=2.54$, $SD=.67$; $t(32)=-2.00$, $p<.05$; considering others: $M=2.09$, $SD=.67$ vs. $M=2.97$, $SD=.59$; $t(32)=-4.09$, $p<.01$; questioning judgment: $M=1.86$, $SD=.60$ vs. $M=2.28$, $SD=.60$; $t(32)=2.04$, $p<.05$). Similarly, for the considering others and questioning others strategies, participants who worked with a competitor who offered uncorroborated information and expressed selfish motives were significantly different in strategy use based on the group membership status of the competitor (considering others: $M=2.30$, $SD=.59$ vs. $M=2.87$, $SD=.60$; $t(33)=-2.80$, $p<.01$; questioning judgment: $M=1.58$, $SD=.60$ vs. $M=2.06$, $SD=.60$; $t(33)=-2.33$, $p<.05$). More specifically, when the competitor was described as an out-group member rather than an in-group member, participants used the reasoning strategies significantly less. The interpretation here is fairly straightforward. When someone is working with an out-group competitor they are less likely to use pro-ethical reasoning strategies than when they are working with a comparable in-group competitor.

A final significant difference for the use of the questioning judgment strategy was found that can be accounted for by competitor group membership. A significant differences occurred in which participants working with an in-group competitor who offered corroborated information and expressed pro-organizational goals used the questioning judgment strategy less than those working with the same competitor who expressed pro-group goals rather than pro-organizational goals ($M=1.88$, $SD=.60$ vs. $M=2.28$, $SD=.60$; $t(29)=-1.84$, $p<.05$). Three possible explanations for this difference are plausible. First, a competitor who expresses pro-group goals in this situation elevates the likelihood of the participant using the questioning others strategy. Second, expressing pro-organizational goals in this situation causes a reduction in the likelihood of using the questioning judgment strategy. Third, it could be a combination of the first two explanations. It is unclear why the expression of pro-organizational as compared with pro-group goals would cause such a difference in the use of the questioning judgment strategy. Perhaps the competitor appears to be more of a threat to the participant's organizational role by expressing pro-organizational motives rather than pro-group motives. However, this is a highly speculative analysis of this finding and future research should investigate why this might occur.

Ethicality results

Table 8 shows the results of the ANCOVA analyzing the effects of the manipulations on ethicality. Participant scores for conscientiousness and participant gender were retained as significant covariate controls. This table shows a main effect for the information corroboration manipulation ($F(2,195) = 11.68; p = .001$).

Table 9 along with Figures 7 and 8 present the estimated marginal means for ethicality resulting from the main effect for information corroboration and competitor group membership. When the participants received corroborated information they tended to make a more ethical decisions than when the information was uncorroborated. This offers support for the assertion made in hypothesis 1b which suggests that uncorroborated information will impact ethical decision-making. Additionally, when they worked with an in-group competitor as compared with an out-group competitor they tended to make more ethical decisions. While it is not strong support of hypothesis 3b, the fact that the ANCOVA results for the competitor's group membership status was approaching significance suggests that the in-group/out-group membership status of one's competitor can influence ethical decision-making.

Discussion

Before discussing the implications of these findings, a few limitations should be noted. First, the use of an undergraduate sample could limit the generalizability of these findings. However, given that this study did not focus on variables such as self-image or other social domains which are known to vary with age and instead focuses on the cognition individuals engage in when presented with an ethical problem the effect of using an undergraduate sample should be negligible (Wintre, North, & Sugar, 2001). Additionally, while generalizability is of some concern, the best way to establish boundaries on generality is via replication. Thus, the concern of internal validity was of tantamount importance in this study as compared with potential effects on external validity (Kam, Wilking, & Zachmeister, 2007). Thus we feel comfortable applying these findings to individuals from a broader set of circumstances than those included in our sample here, although we would encourage the reader to bear in mind this potential limitation.

A second limitation to consider when interpreting these findings is that there was a lack of power in some analyses. This can be seen in the small eta squared values in the ANCOVA analysis. We interpret these findings with caution given the limited power afforded by the sample size and the use of a low fidelity simulation task. It is likely that the effects stemming from the manipulations might demonstrate much larger effects in real world settings, due to the fact that a low fidelity simulation can only approximate the impact the potential outcomes would have on an individual's emotional and cognitive processes.

One final limitation that should be mentioned is the potential for method bias. All the variables reported in this study were collected using expert raters judgments on materials from a low-fidelity simulation. The participants responded to three different questions for each scenario during the course of the experiment. The first two responses were content coded for information bearing on sensemaking and strategy use. Ethicality was coded for

using the third response participants gave for each scenario. Because these data were collected using the same method it is likely that some of the variance they share is due to the method rather than the constructs themselves being interrelated. Thus the findings should be interpreted accordingly.

Bearing these limitations in mind, we feel that the current study has notable implications. First and foremost, it is clear that the form intra-organizational competition takes is an important consideration in ethically ambiguous circumstances. Looking at the pattern of results presented in the current study a few overarching interpretations can be applied. First, asking an individual to cooperate with a competitor within the same organization can be a tricky endeavor – one in which the in/out-group status of the competitor, the motives they express, and the type of information shared can all have an impact. Individuals used the considering others and questioning judgment reasoning strategies less and were significantly less ethical when they received uncorroborated information from a competitor, regardless of the competitor's group affiliation or motives. Receiving information that is uncorroborated rather than corroborated represents a situation in which the sensemaking that an individual must do gets more complex. Not only is the individual in question now trying to resolve an ethically ambiguous situation, they are also having to manage the reception of information that may be of questionable quality. In fact, previous research has demonstrated that when an individual offers information in a group setting that is not corroborated by others, the group members tend to be apprehensive about the value of the information (Postmes, Spears, & Cihangir, 2001; Wittenbaum, Hubbell, & Zuckerman, 1999).

Additionally, it is likely that competitors are perceived as a threat to one's organizational role. If a competitor is seen as attempting to occupy a structurally similar organizational position, it is not surprising given past findings that this could cause friction and disrupt an employee's attempt to engage in ethical decision-making (Burt, 1987). By offering unique information, a competitor demonstrates some level of competence or access to information that might tilt the balance of the competition in their favor. In this case, the individual is no longer facing merely the ethical aspects of the decision that must be made, they are now also forced to consider the ramifications of a competitor gaining an advantage over them. This being the case, the situation becomes more complex and new issues are raised that must be monitored. For instance, the motives of the individual sharing the information must now be taken into account when working to resolve the problem. This is likely to take up precious cognitive resources that could have been used to consider and resolve the ethical problem at hand. Further research should investigate the mechanisms by which this phenomenon operates, but what is clear at this point is that receiving uncorroborated information from a competitor is not helpful for promoting ethical decision-making.

In addition to the influence of sharing uncorroborated (and thus suspect) information, is the influence of merely working with a competitor who is from an out-group. Apparently, having to cooperate with an out-group competitor is perceived differently than cooperating with an in-group competitor. Here, participants who worked with an out-group competitor demonstrated lower levels of ethicality when working with an out-group member. It is likely that working with an out-group member activates the normal stereotyping phenomenon witnessed in other in-group/out-group research (Sherif, Harvey, White, Hood, & Sherif,

1961). If an out-group competitor is perceived negatively, which is typical of people's perception of members of an out-group, it is not surprising that they would appear to be more of a threat and that forcing an employee to work with them would cause problems regarding their ability to make ethical decisions.

The second overarching finding relates to the complexity of the outcomes found here. Group member affiliation, the type of information shared among competitors, and individual motives must be considered when managing employees who are making decisions in ethically challenging circumstances. Competition will occur within organizations. Ethically ambiguous circumstances will arise in the course of doing business. When people have to deal with competition and ethical decision-making simultaneously organizations must proceed with caution if they want to promote the use of pro-ethical decision-making strategies. None of these three situational factors (i.e., competitor motives, competitor group status, and information corroboration) showed significant effects on the use of pro-ethical reasoning strategies. However, when considered together they did show some significant impact on the use of these strategies. What is apparent is that when organizational leaders ask their employees to work with those who are competing with them, caution must be taken and an in-depth consideration of factors such as group affiliation, information availability, and expressing motives should be taken into account.

Among the most consistent findings from this study is that out-group competitors who express selfish motives and offer uncorroborated information hinder the use of pro-ethical reasoning strategies. In this situation, the competitor has three strikes against them. They are in an out-group, they are expressing selfish motives, and they are offering questionable information. Based on the findings here, it can be expected that individuals interacting with competitors with this profile will use the considering others, anticipating consequences, and questioning judgment strategies less than competitors with most other profiles. It is not surprising that all of these factors would come together and create a situation in which a participant would be distracted from the use of pro-ethical reasoning strategies by having to manage a working relationship with a competitor. In this case, the competitor and the participant were working to maintain their standing in an organization that is facing a downsizing event. As such, this competitor's actions may or may not be intended to help others within the organization and the participant may feel more or less need to monitor their competitor's actions based on the type of information they provide, the motives they express, and their relative group membership status.

In addition to the reduction in use of pro-ethical reasoning strategies witnessed for the selfish, out-group competitor with uncorroborated information, there were also reductions in the use of the use of the anticipating consequences and questioning others strategies in one particular set of conditions. Participants used the anticipating consequences and questioning judgment strategies less when working with an in-group competitor offering uncorroborated information and expressing pro-group motives when comparing them to a person with a similar profile but instead offered corroborated information (see Figure 2). This represented the widest swing in strategy use in the anticipating consequences strategy and suggests that offering uncorroborated versus corroborated information can have a very strong effect in certain circumstances. What appears to be the case is that a radical shift occurs when

individuals encounter an in-group competitor with pro-group motives who offers corroborated as compared to uncorroborated information. In the one case the competitor has three factors encouraging their coworkers to view them as being a member of the same team with the same motivations. That is, if an employee is working with an in-group competitor but that competitor expresses pro-group motives and offers corroborated information only it does not hinder the use of pro-ethical reasoning strategies. It is likely that a competitor with this profile can establish some trust in the relationship by being selective in how they share information, however, future research should investigate this 'trust hypothesis' more in depth.

Implications

The implications of these relatively complex findings can be summarized with two statements. First, two factors were found to reduce ethical decision-making: working with a competitor from an out-group as compared with one from an in-group and a competitor offering uncorroborated information. In addition to lowering ethical decision-making, a competitor who offers uncorroborated information can also cause others to use pro-ethical reasoning strategies less frequently. Second, the relationship between information sharing, relative group membership, and expressed motives is a complex one in which one must be cautious about the type of information they share with others if ethical issues are a concern. What appears to be the case is that offering uncorroborated information can suppress the use of pro-ethical reasoning strategies when it is received from a selfish out-group information source. Expressing selfish motives and offering uncorroborated information were not as damaging for strategy use when it was offered by an in-group member, in most circumstances. However, an exception to this general rule was found. When an in-group competitor expressed pro-group motives and offered uncorroborated information a reduction in pro-ethical strategy use occurred.

Organizations can use these findings to help inform two important aspects of managing their workforce. First, organizations should shape their information sharing procedures in such a way as to make sure that a third party is working with individuals known to be competing with each other. Specifically, having a third party oversee information sharing can help encourage two competing parties to use pro-ethical reasoning strategies more often and make more ethical decisions. Additionally, the organization should be aware that information sharing is done in a motivated manner. Because this is the case, information sharing between organizational members might unnecessarily complicate decision-making and end up suppressing ethical decision-making. One important factor that can help limit this problem is to discourage the expression of selfish motives by two competing employees from different groups.

Clearly, competition is an important factor to consider when dealing with ethical decision-making. Organizations have limited resources and opportunities to spread around to a large number of organizational members, as such competition will inevitably rear its head even in the most collaborative of organizations. Here three factors have been presented that are important to consider when managing competition such that the ethicality and integrity of the organization is preserved. Each of these factors, the in-group/ out-group status of a

competitor, whether or not a competitor offers uncorroborated information, and the motives expressed by a competitor interacted with each other to create situations that influenced an individual's ability to interpret their situation and render an ethical decision. Organizational leaders would be wise to consider these factors as they work to conduct their affairs with honesty and integrity.

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Figure 1.
Main effect of information corroboration on the use of the considering others strategy.
Note: All ratings are on a 1–5 scale

Figure 2.
Main effect of information corroboration on the use of the questioning judgment strategy.
Note: All ratings are on a 1–5 scale

Figure 3.
 Three-way interaction on the use of the anticipating consequences strategy.
 Note: All ratings are on a 1–5 scale

Figure 4.
Three-way interaction on the use of the questioning judgment strategy.
Note: All ratings are on a 1–5 scale

Figure 5.
Three-way interaction on the use of the considering others strategy.
Note: All ratings are on a 1–5 scale

Figure 6.
Two-way interaction on the use of the considering others strategy.
Note: All ratings are on a 1–5 scale

Figure 7.
Main effect of information corroboration on decision ethicality.
Note: All ratings are on a 1–5 scale

Figure 8.
Main effect of competitor group status on decision ethicality.
Note: All ratings are on a 1–5 scale

Table 1

Expanded definitions of cognitive reasoning strategies relevant for ethical decision-making

	<i>Strategy</i>	<i>Operational Definition</i>
1	Questioning your own and others' judgment	Considering problems that people often have with making ethical decisions, remembering that decisions are seldom perfect
2	Anticipating consequences of actions	Thinking about many possible outcomes such as consequences for others, short & long term outcomes based upon possible decision alternatives
3	Considering the effects of actions on others	Being mindful of others' perceptions, concerns, and the impact of your actions on others, socially and professionally

Note: Adapted with permission from Mumford, Connelly, Brown, Murphy, Hill, Antes, Waples, & Devenport, 2007

Table 2

Pearson correlation coefficients for sensemaking strategies and ethicality

	Anticipating Consequences	Considering Others	Questioning Judgment	Ethic
Anticipating Consequences	1			
Considering Others	.714**	1		
Questioning Judgment	.622**	.751**	1	
Ethicality of Decision	.535**	.624**	.485**	1

Note:

**
signifies $p < .01$

Table 3

MANCOVA results for pro-ethical strategy use

Variable		<i>F</i>	<i>df</i>	<i>p</i>	η^2
Covariates					
	EAS	3.94	5, 192	.002**	.094
	Gender	2.28	5,192	.053 [†]	.055
Main Effects					
	Other's Motives	1.43	5,192	.213	.360
	Other Presents New Info	1.16	5,192	.332	.029
	Other's Work Group	1.80	5,192	.115	.045
Interactions					
	Motives*Info	.879	5,192	.496	.022
	Motives*Group	3.00	5,192	.012*	.073
	Info*Group	1.23	5,192	.297	.031
	Motives*Info*Group	2.35	5,192	.042*	.058

Note:[†] signifies $p < .10$;* signifies $p < .05$;** signifies $p < .01$

Table 4

ANCOVA for manipulation effects on strategy use

Condition	Variable							
	Anticipating Consequences				Considering Others			
	F	df	p		F	df	p	Questioning Judgment
Intelligence	11.43	1,195	.001**		15.96	1,195	.000**	6.20 1,195 .031*
Gender	2.25	1,195	.011*		9.34	1,195	.011*	6.65 1,195 .011*
Other's Motives	0.74	2,195	.478		0.04	2,195	.963	0.03 2,195 .973
Information Corroboration	2.29	1,195	.132		4.14	1,195	.043*	4.37 1,195 .038*
In/Out Group Status	0.02	1,195	.881		0.60	1,195	.191	2.22 1,195 .138
Motives*Group	0.58	2,195	.651		2.76	2,195	.066†	1.32 2,195 .269
Motives*Corroboration	0.26	2,195	.774		0.17	2,195	.847	1.12 2,195 .330
Group Status*Corroboration	1.49	1,195	.223		0.20	1,195	.656	.012 1,195 .912
Motives*Group*Info Source	2.67	2,195	.072†		2.45	2,195	.089†	3.20 2,195 .043*

Note:

† signifies $p < .10$;

* signifies $p < .05$;

** signifies $p < .01$

Table 5

Estimated Marginal Means for Information Corroboration Main Effect on Considering Others and Questioning Judgment Strategies

		<i>M</i>	<i>SD</i>
Considering Others	In-group Competitor	2.75	0.611
	Out-group Competitor	2.63	0.581
Questioning Judgment	In-group Competitor	2.02	0.583
	Out-group Competitor	1.89	0.595

Note: All ratings are on a 1–5 scale

Table 6

Estimated Marginal Means for the Anticipating Consequences Strategy

	Information Source	Work Group	Motives					
			Self Motive		Group Motive		Org Motive	
			M	SD	M	SD	M	SD
Anticipating Consequences	Information Corroborated	Out-group Competitor	2.26	.14	2.09	.16	2.40	.16
		In-group Competitor	2.30	.16	2.54	.17	2.29	.17
	Information Corroborated	Out-group Competitor	1.99	.15	2.30	.15	2.37	.16
		In-group Competitor	2.21	.17	1.93	.17	2.23	.16
Questioning Judgment	Information Corroborated	Out-group Competitor	2.06	.13	1.86	.14	2.01	.14
		In-group Competitor	2.17	.15	2.28	.15	1.88	.15
	Information Corroborated	Out-group Competitor	1.58	.13	1.94	.13	1.92	.14
		In-group Competitor	2.06	.16	1.76	.15	1.97	.15
Considering Others	Information Corroborated	Out-group Competitor	2.70	.13	2.66	.14	2.77	.14
		In-group Competitor	2.86	.15	2.97	.15	2.74	.15
	Information Corroborated	Out-group Competitor	2.30	.13	2.68	.13	2.75	.14
		In-group Competitor	2.87	.15	2.53	.15	2.56	.14

Note: All ratings are on a 1–5 scale

Table 7

Estimated Marginal Means for the Considering Others Strategy

Work Group	Motives					
	Self Motive		Group Motive		Org Motive	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Out-group Competitor	2.502	.094	2.670	.096	2.761	.098
In-group competitor	2.863	.107	2.746	.105	2.648	.105

Note: Motives (self, group, org), Group (competing group, same group), Info Source (new info from competitor, no new info from competitor); all ratings are on a 1–5 scale

Table 8

ANCOVA for Manipulation Effects on Ethicality

Condition	Ethicality		
	<i>F</i>	<i>df</i>	<i>p</i>
Conscientiousness	8.14	1,195	.005**
Gender	6.43	1,195	.012*
Competitor Motives	0.25	1,195	.782
Information Corroboration	9.13	1,195	.003**
In/Out Group Status	3.30	1,195	.071†
Motives*Group	2.12	1,195	.123
Motives*Corroboration	0.06	1,195	.938
Group Status*Corroboration	0.43	1,195	.510
Motives*Group*Corroboration	0.03	1,195	.969

Note:† signifies $p < .10$;* signifies $p < .05$;** signifies $p < .10$

Table 9

Estimated Marginal Means for Information Corroboration Main Effect on Ethicality

		<i>M</i>	<i>SD</i>
Information	Corroborated	3.29	.611
	Uncorroborated	3.05	.519
Group Status	In-group	3.23	.561
	Out-group	3.11	.591

Note: All ratings are on a 1–5 scale