

WHO'S WITH ME? FALSE CONSENSUS, BROKERAGE, AND ETHICAL DECISION MAKING IN ORGANIZATIONS

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We propose that organization members overestimate the degree to which others share their views on ethical matters. Further, we argue that being a broker in an advice network exacerbates this false consensus bias. That is, a high level of “betweenness centrality” increases an individual’s estimates of agreement with others on ethical issues beyond what is warranted by any actual increase in agreement. We tested these ideas in three separate samples: graduate business students, executive students, and employees. Individuals with higher betweenness centrality overestimated the level of agreement between their ethical judgments and their colleagues’.

For members of organizations, ethical standards can help guide individual decision making by clarifying what the majority of others believe is appropriate. But given that ethical standards often are tacitly held, rather than explicitly agreed upon (Haidt, 2001; Turiel, 2002), individuals may struggle to recognize the normative view—what most others believe is the “right” course of action. People’s tendencies to project their own opinions can alter their judgments about what others think is ethical, perhaps giving them a sense of being in the majority even when they are not. The ramifications of this false consensus effect may be problematic: if members of organizations erroneously assume that their actions are in line with prevailing ethical principles, they may subsequently learn of their misjudgment when it is too late to avert the consequences.

In the present research, we examine whether brokers in a social network show evidence of false consensus in ethical decision making. Because brokers span structural holes (missing relationships that inhibit information flow between people [see Burt, 1992]), one might assume that these individuals possess greater insight into others’ attitudes and behaviors. But can acting as a broker (i.e., having “betweenness”) inform a focal individual about his or her peers’ ethical views? In interactions with colleagues, people generally refrain from initiating moral dialogue; rather, they prefer to discuss less sensitive attitudes and opinions (Sabini & Silver,

1982). We argue that this tendency to avoid moral discourse and instead discuss superficial connections *worsens* the false consensus bias in ethical decision making, providing an illusion of consensus where none exists.

The notion that having an advantageous position in a social network might exacerbate, rather than mitigate, false consensus bias in ethical decision making represents a novel insight for those interested in the link between social networks and individual judgment. Prior work on identifying the determinants of false consensus has focused primarily on motivational drivers, such as ego protection, or cognitive heuristics, such as “availability bias” (for a review, see Krueger and Clement [1997]). Yet, the nature of false consensus—a flawed view of one’s referent group—suggests that an individual’s set of social ties can also play an important role. In contrast to the authors of work on ethical decision making who have treated social networks as a means of social influence (e.g., Brass, Butterfield, & Skaggs, 1998), we propose that social networks can distort social cognition (see Flynn, Reagans, Amanatullah, & Ames, 2006; Ibarra, Kilduff, & Tsai, 2005), particularly the judgment of others’ ethical views.

We aim to make several contributions to the scholarly literatures on social networks and ethical decision making in organizations. First, we introduce the concept of false consensus bias in the context of ethical judgments, thereby adding to a growing literature on the psychological factors affecting organization members’ moral reasoning (see Mannix, Neale, & Tenbrunsel, 2006). Second, and more importantly, we explore whether one’s loca-

The authors would like to acknowledge helpful comments on drafts of this article offered by Dale Miller and Benoit Monin.

tion in an advice network can influence this false consensus bias; thus, we examine ethical decision making in organizations as a form of social judgment. Finally, we provide a counterpoint to research showing that many forms of centrality in social networks can improve social perception (e.g., Krackhardt, 1987), suggesting instead that an individual's judgments of ethical standards (i.e., the ability to gauge a consensual position) may be impaired by occupying a broker role (i.e., by having more betweenness).

Ethical Judgments and False Consensus Bias

Ethical principles can be defined as consensually held positions on moral issues (e.g., Fritzsche & Becker, 1984; Kohlberg, 1969, 1981; Mackie, 1977; Payne & Giacalone, 1990; Toffler, 1986; Turiel, 2002). According to this conventional view of ethics, moral values are continually evolving and are shaped by patterns of behavior and discourse within a social group (Phillipps, 1992; Schweder, 1982; Wieder, 1974). Other approaches to ethics, such as the principles approach advocated by Locke's utilitarianism, Kant's categorical imperative, and higher-level stages of morality in Kohlberg's (1969) model of moral reasoning, do not contain such an assumption that ethics are socially determined. In the present research, we focus on the conventional approach and acknowledge that in other approaches, consensus may not be as important in deciding which behaviors are ethical.

For members of organizations, socially shared ethical standards are important to recognize but often difficult to gauge (Treviño, 1986). Such uncertainty in diagnosing the conventional ethical view can invite various forms of cognitive bias. In particular, empirical studies of the "false consensus effect" (Marks & Miller, 1987) have consistently shown that "people's own habits, values, and behavioral responses . . . bias their estimates of the commonness of the habits, values, and actions of the general population" (Gilovich, 1990: 623). People who are shy, for example, tend to think that more people are shy than do those who are gregarious (Ross, Greene, & House, 1977). In some sense, false consensus is akin to an "anchoring and adjustment" process, whereby people anchor on their own attitudes and insufficiently adjust for ways in which they are likely to differ from others (Davis, Hoch, & Ragsdale, 1986).

We propose that false consensus bias can play a critical role in ethical decision making by influencing how individuals see their decisions in relation to how others see the same decisions. According to Haidt's (2001) social intuitionist model,

when prompted to defend their moral reasoning, most individuals are motivated to see their choices and attitudes as consistent with others' choices and attitudes. This desire for normative alignment may, in turn, lead them to interpret their own actions and beliefs as "common and appropriate" (Ross et al., 1977: 280). Conversely, the same people will see alternative responses (particularly those directly opposed to their own) as deviant, or uncommon and inappropriate. In short, people are predisposed to view their decisions as being more in line with the prevailing view than others' decisions are (Krueger & Clement, 1997).

The concept of appropriateness plays a pivotal role in the domain of ethical decision making because it provides a motivational driver for individual judgment (Haidt, 2001; Haidt, Koller, & Dias, 1993). People are motivated to make moral judgments and avoid making immoral ones (Colby, Gibbs, Kohlberg, Speicher-Dubin, & Candee, 1980). But what happens when they are unclear about moral standards? When the ethical course of action is ambiguous (e.g., there is a dilemma in which one ethical principle stands opposed to another), members of organizations will be inclined to see their actions as normative rather than deviant. The cumulative effect of this motivated reasoning is straightforward: employees' intuitions about whether others agree with their ethical judgment will be biased, so that they overestimate the prevalence of their own views. We therefore put forth:

Hypothesis 1. People estimate that a majority of others share their views on ethical issues—even when their views are actually held by a minority of others.

Brokerage and False Consensus Bias in Ethical Decision Making

Can an individual's location in a social network, particularly his or her centrality, affect ethical decision making? Brass et al. (1998) argued that more centrally located employees are less likely to perform immoral acts because being well known makes individual behavior more visible and increases potential damage to one's reputation. According to Sutherland and Cressey (1970), the effect of network centrality on individual ethical judgment is a matter of social influence rather than reputation. To the extent that a focal individual is connected to many unethical colleagues, network centrality will likely be a strong predictor of unethical behavior; to wit, a higher percentage of "bad apples" in one's social circle can cloud one's moral judgment.

We suggest an alternative link between network centrality and ethical decision making—one that connects social networks with social projection. Centrality in a social network is often described as a form of power (or potential power) because having a central network position offers an individual “greater access to, and possible control over, relevant resources,” such as information (Brass, 1984: 520). One specific form of power in advice networks, betweenness centrality, is closely associated with informational advantage (Burt, 1992). Betweenness captures the extent to which a point falls between pairs of other points on the shortest path connecting them. In other words, if two people, A and C, are connected only through another person, B, then B has some control over any resources that flow between A and C. In effect, B can act as a broker between A and C. As a measure of centrality, betweenness is well suited to capture the control of information in advice networks (Freeman, 1979). Thus, betweenness centrality may be a particularly relevant source of power that pertains to ethical decision making in organizations.

Given that brokers have an informational advantage, one might assume that these individuals have greater insight into their group’s shared moral attitudes and beliefs and therefore will be more accurate in estimating others’ ethical judgments. In contrast, we argue that the opposite may be true. Individuals learn about others’ attitudes through ongoing conversation and casual observation, but the insight they gain from such interactions can often be superficial (Hollingworth, 2007). People are inclined to talk about “safe” subjects—sports, kids, current events—rather than sensitive subjects such as politics, religion, and morality (Kanter, 1979; Skitka, Baumann, & Sargis, 2005). Thus, little of the information that brokers gain from their social ties may apply to personal bases of moral judgment because people are loath to discuss their moral values openly with their colleagues. Instead, such discussions of morality seem almost taboo (Sabini & Silver, 1982; Turiel, 2002).

Although people may be reluctant to discuss moral quandaries with their colleagues, those who broker social ties in an advice network may assume that they share their colleagues’ views on moral issues, even when this is not the case. Recent research suggests that powerful individuals, such as those who occupy powerful positions in social networks, are prone to failures in perspective taking. They are less attentive to social cues and less sensitive to others’ views (Erber & Fiske, 1984; Keltner, Gruenfeld, & Anderson, 2003). In fact, according to Galinsky, Magee, Inesi, and Gruenfeld, perspective taking—“stepping outside of one’s own experience

and imagining the emotions, perceptions, and motivations of another individual” (2006: 1068)—has been described as antithetical to the mind-set of the powerful, given that powerful individuals are less empathic, less considerate of others’ opinions, and less likely to take into account others’ information when making decisions.

Are powerful people, such as brokers, likely to assume that others’ ethical views are more like their own, or less? We propose that brokers may be *more* likely to assume their views are in line with the conventional standard because they possess an inflated sense of similarity. Brokers often have to negotiate across boundaries and manage people with diverse interests (Burt, 2007). As social conduits, they identify, establish, or create bases of connection, communion, and correspondence, which, in turn, reinforce a sense of shared attitudes and beliefs (Stasser, Taylor, & Hanna, 1989). Brokers may assume that the agreement they share with others on explicit topics of conversation pertains to unspoken attitudes, such as moral beliefs. Thus, for individuals who have high levels of betweenness (i.e., brokers), estimates of how their moral attitudes align with those of their colleagues may become exaggerated. They may overestimate the extent to which their ethical views are aligned with others’ because brokers are inclined to believe they are highly similar to their peers. Formally, we propose:

Hypothesis 2. People who are highly central within a social network are more likely than those who are less central to overestimate social support for their ethical views.

Overview and Summary of Predictions

We propose that ethical decision making in organizations is subject to the false consensus bias—a tendency for people to assume that others hold the same opinions as they do. We predict that individuals who are asked to evaluate whether a certain act is ethical or unethical will assume that more of their peers will provide a response similar to their own than is actually the case. One might predict that an advantageous position in an advice network (i.e., betweenness) would mitigate this false consensus bias, because brokers sometimes enjoy an informational advantage over others. However, we predict that having more betweenness centrality increases, rather than decreases, the false consensus bias in ethical judgments. Being a broker will not expose the unspoken differences in moral opinions that often exist; rather, it will strengthen an individual’s belief that her or his peers hold similar

ethical views (i.e., inflating estimates of agreement with others).

We tested these ideas by collecting judgments of ethical decision making in the workplace from master's of business administration (MBA) students, students enrolled in a master's of management program for executives, and employees in the marketing department of a manufacturing firm. Following previous research on the false consensus bias (e.g., Ross et al., 1977), we asked each participant in our study to consider several hypothetical scenarios that featured ethical dilemmas and to provide their opinion about whether the action described was ethical and what percentage of their colleagues held the same view. We also collected data from participants describing their advice networks; specifically, we asked whom among their colleagues they would go to for help and advice (and who among their colleagues would come to them for help and advice).

METHODS

Participants

Marketing department sample. Thirty-four employees (78 percent women; mean age, 34.3) in the marketing department of a large food manufacturing company participated in this study in exchange for \$25 gift certificates to a major online retailer. Seventy-seven percent of eligible participants (i.e., all employees in the marketing department at the company's headquarters) completed the survey. On average, participants had worked for the company 3.2 years (s.d. = 4.3) and for the department 2.3 years (s.d. = 2.5). All participants worked at one location and therefore had the opportunity to interact with each other frequently. In fact, the (former) head of the marketing department suggested that the group had a strong identity because (1) the employees were colocated and (2) they often did not need to contact employees from other departments to complete their work (a large percentage of their communication was internal). People from all levels of the department completed the survey. Respondents' titles ranged from administrative assistant to vice president of marketing.

MBA student sample. One-hundred-sixty-two master's of business administration students (20 percent women; mean age, 29.4 years s.d. = 5.4) at a private East Coast university participated in this study as part of a required course in organizational behavior. Participants were split equally across three sections of the same class. During the first year of the MBA program, students were required to take courses with the same group of fellow stu-

dents. At the time of this study, the students in each class had been together for approximately seven months. These "clusters" constituting the MBA classrooms are meaningful to the students, given that they take all of their classes and organize many of their social activities together during their first year. Providing evidence of how insular these groups are, a separate survey revealed that more than 80 percent of respondents' self-reported network ties were with people from their own cluster rather than other clusters. Ninety-five percent of eligible participants completed the online study questionnaire. Participants had an average of 5.6 (s.d. = 2.8) years of work experience.

Executive sample. Fifty-three students in a full-time master of management program for executives at a private West Coast university (25 percent women; mean age, 35.6 years, s.d. = 3.9) participated in this study as part of a required course in organizational behavior (again, students were required to take all of their courses with the same group of fellow students). Ninety-five percent of eligible participants completed the study questionnaire, which was administered eight weeks after the start of their program. Executive students in this program have a strong social identity. They take all their classes in the same room and socialize frequently outside of class. The executive students had an average of 12.7 (s.d. = 3.9) years of work experience.

Procedures

Participants were invited to complete an online survey. After following a link to the study website, they were presented with a series of hypothetical scenarios describing ethical dilemmas in a workplace setting. Following each scenario, participants were asked to indicate whether they viewed the action taken in each dilemma to be ethical ("yes" or "no"). In addition, they were asked to estimate the percentage of others within their class or department who would agree with their response. Participants then responded to a series of questions designed to assess their social network within the class or department. Finally, they were asked to provide basic demographic information on their race, sex, home country, and age. Participants in the marketing department sample also indicated their hierarchical status.

Materials and Measured Variables

Ethical dilemmas. Following other research on social projection (e.g., Ross et al., 1977; Sabini, Cosmas, Siepmann, & Stein, 1999), we created a set

of hypothetical scenarios to serve as stimuli. The Appendix summarizes the six scenarios. Each of the scenarios we derived drew on Kidder's (1995) taxonomy of "right vs. right" ethical dilemmas, in which two moral values are placed in direct opposition; following one moral value would lead an individual to make one decision and following the other moral value would lead the same individual to make a different decision (see also Badaracco [1997] and Toffler [1986] for a similar description of ethical dilemmas). Specifically, we employed Kidder's classification of three different types of ethical dilemmas: *individual/community*, *truth/loyalty*, and *justice/mercy*.

According to Kidder (1995), an individual versus community dilemma refers to situations in which one option presents substantial costs to an individual but the alternative option presents substantial costs to the community. In contrast, a justice versus mercy dilemma entails a choice between delivering punishment swiftly and surely or demonstrating compassion and leniency for a given transgression. Finally, a truth versus loyalty dilemma involves a situation in which the principle of honesty compels one to answer accurately but doing so would simultaneously break the confidence of another colleague. We drew on these three different classifications to generate six scenarios: two pitted the needs of the individual against the needs of the community, two pitted truth against loyalty, and two pitted justice against mercy. After reading each of these six scenarios, participants were asked to indicate whether the decision described in the scenario was ethical ("yes" or "no").

Each dilemma was pretested to confirm that participants would treat the dilemma as an ethical one. Fifteen pretest participants rated how much they perceived each scenario to be an ethical dilemma (1 = "not at all," 7 = "very much"). Participants gave five of the six vignettes a rating significantly higher than the midpoint of the scale (all p 's < .01), and they rated the vignette that described an employee leaving a start-up company marginally higher than the midpoint ($p = .06$). For the set of six scenarios, the mean rating of how much participants perceived a scenario to be an ethical dilemma was 5.4 (s.d. = 1.4).

Estimated agreement. In addition to collecting participants' individual responses about the decision made in each scenario, we collected their opinions about how others would respond. That is, after reading each of the six hypothetical dilemmas, participants were asked, "What percentage of other people within your department [class] would share your opinion about the ethicality of the decision?" Participants could provide any number ranging

from 0 through 100 in response to this question. We calculated the average response as part of our measure of social projection (see de la Haye, 2000; Krueger, 1998).

Actual agreement. For each participant, we calculated the actual level of agreement for each individual for each dilemma by computing the percentage of others in that individual's class or department who made the same choice as the focal participant. In other words, if a participant classified a decision as unethical, actual agreement was defined as the percentage of others in the class or department who also classified that decision as unethical.

Perhaps participants' estimates of agreement did not accurately reflect the actual percentage of others in their referent group (i.e., class or department) who agreed with their ethical judgments but *did* reflect the extent to which others in their network agreed with their ethical judgments. To test for this possibility, we created a second measure of actual agreement that pertained to each individual's advice network. Specifically, we calculated the percentage of people within a participant's advice network (this measure is described below) who classified a particular decision the same way as he or she did (ethical or unethical).

Network centrality. Network centrality has been measured in several different ways. We calculated three specific measures: degree centrality, closeness centrality, and betweenness centrality. Degree centrality was the sum of the number of ties directed to a focal individual (i.e., the number of other individuals from whom she or he received advice) and emanating from the focal individual (i.e., the number of other individuals to which she or he gave advice). Closeness centrality was a measure of the shortness of paths between a focal individual and all other members of a network. Finally, betweenness centrality was the fraction of shortest paths between dyads that passed through a focal individual. Although we considered all three measures of centrality in our analysis, we expected betweenness centrality to have the most direct connection to false consensus because betweenness centrality captures the potential influence that an individual has over the spread of information through a network. In line with our research question, we investigated whether individuals who had higher levels of power based on informational influence overestimated the overlap between their own and others' ethical views.

To calculate these measures of centrality, we collected ego (self) and alter (peer) reports of network ties, particularly those ties that refer to the exchange of help and advice (Krackhardt, 1987). Par-

ticipants in each of the three samples were presented with a complete list of colleagues (classmates for the business school students and executive students, coworkers for the marketing department employees) and asked, "To whom would you go for help or advice if you had a question or a problem?" Participants checked off the names of colleagues who met this criterion (for the members of the MBA student sample, the names were limited to the other students enrolled in their particular class); there was no limit on the number of names participants could select. On the next page of the questionnaire, participants were asked to repeat the exercise, but in this case they indicated which individuals might "come to them for help or advice." Thus, participants were asked to describe both sides of each dyadic relation.

To reduce the influence of egocentric bias, we focused on confirmed ties (Carley & Krackhardt, 1996) as the basis for our measures of centrality. In a confirmed advice-seeking tie, a focal participant reports that he/she receives advice from the listed alter and the listed alter reports that he/she gives advice to the ego. We calculated a "directed" measure of betweenness centrality following the steps outlined by White and Borgatti (1994). We also calculated a measure of closeness centrality based on directed graphs (Freeman, 1979). Finally, we calculated degree centrality by summing the number of confirmed ties for each participant. Degree centrality represented not only the number of intragroup ties an individual possessed, but also the proportion of the referent group to which the individual was connected in this manner.

Hierarchical status. To account for the possibility that employees in high-status positions estimate higher levels of agreement than employees in low-status positions (cf. Flynn, 2003), participants in

the marketing department sample were asked, "How would you describe your position in the organization?" They responded using a seven-point Likert scale (1 = "entry level," 7 = "top level").

Demographic variables. Given that sex differences have appeared in measures of network centrality (Ibarra, 1992) and false consensus bias (Krueger & Zeiger, 1993), we controlled for participant sex in each of our analyses. We also controlled for age, which varied widely in the marketing department sample and, to a lesser extent, in the executive student sample. We used dummy variables to control for the regions of participants' home countries in the MBA student sample and the executive student sample (an Asian country, a Latin-American country, or another country outside of the United States). Because only three people in the marketing department sample had a home country that was not the U.S., we did not control for region in that sample.

RESULTS

Tables 1, 2, and 3 report means, standard deviations, and correlations for all variables in the marketing department sample, the MBA student sample, and the executive student sample, respectively. We analyzed each of these samples separately, including the three separate sections of the MBA student sample. Preliminary graphical and statistical analyses of the MBA student sample revealed that two outliers whose responses were three standard deviations away from the mean were strongly influencing our results. We excluded these two outliers from the final data set. No outliers were found in the other samples.

TABLE 1
Descriptive Statistics and Correlations, Marketing Department Sample

| Variable | Mean | s.d. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------------------------|-------|-------|------------------|------|------|-------|-------|-------|------|-------|-------|
| 1. Estimated consensus | 63.22 | 13.31 | | | | | | | | | |
| 2. Actual consensus | 61.96 | 8.09 | .24 | | | | | | | | |
| 3. Actual network consensus | 0.50 | 0.08 | -.09 | .23 | | | | | | | |
| 4. In-degree centrality | 1.36 | 1.50 | .33 [†] | .26 | -.14 | | | | | | |
| 5. Degree centrality | 2.71 | 2.69 | .46 | .48 | .07 | .84** | | | | | |
| 6. Betweenness centrality | 0.11 | 0.02 | .37* | .35* | .06 | .75** | .84** | | | | |
| 7. Closeness centrality | 0.25 | 0.17 | .41 | .34 | -.13 | .69** | .78** | .50** | | | |
| 8. Status | 2.58 | 1.17 | .26 | -.05 | .19 | -.26 | .02 | -.02 | .05 | | |
| 9. Gender | 1.74 | 0.45 | .14 | -.15 | -.16 | .32 | .27 | .27 | .08 | -.11 | |
| 10. Age | 34.25 | 7.36 | .32 | .22 | .13 | -.37 | -.26 | -.23 | -.11 | .56** | -.41* |

[†] $p < .10$

* $p < .05$

** $p < .01$

TABLE 2
Descriptive Statistics and Correlations, MBA Student Sample

| Variables | Mean | s.d. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|-----------------------------|-------|-------|-------|------|------|-------|-------|-------------------|------|------|------|--------|-------------------|
| 1. Estimated consensus | 64.66 | 10.18 | | | | | | | | | | | |
| 2. Actual consensus | 57.70 | 7.39 | .14 | | | | | | | | | | |
| 3. Actual network consensus | 0.53 | 0.09 | .00 | -.04 | | | | | | | | | |
| 4. In-degree centrality | 2.34 | 2.06 | .19* | .03 | .11 | | | | | | | | |
| 5. Degree centrality | 4.65 | 3.55 | .21 | .09 | .11 | .85** | | | | | | | |
| 6. Betweenness centrality | 0.04 | 0.06 | .23* | .02 | -.08 | .55** | .57** | | | | | | |
| 7. Closeness centrality | 0.27 | 0.14 | .10 | .08 | .05 | .60** | .61** | .49** | | | | | |
| 8. Gender | 1.20 | 0.40 | -.20* | -.11 | .00 | -.02 | -.04 | -.02 | .03 | | | | |
| 9. Age | 29.39 | 5.43 | .13 | -.03 | -.10 | .07 | .04 | .07 | .03 | -.15 | | | |
| 10. Asian | 0.23 | 0.42 | .05 | .07 | .06 | -.12 | -.09 | -.14 [†] | -.10 | -.01 | .04 | | |
| 11. Latin | 0.06 | 0.24 | .02 | .09 | .05 | .06 | .10 | .12 | .07 | -.13 | -.05 | -.14 | |
| 12. Other non-U.S. | 0.23 | 0.42 | -.07 | -.10 | -.01 | .10 | .02 | -.06 | .19* | .10 | .06 | -.30** | -.14 [†] |

[†] $p < .10$

* $p < .05$

** $p < .01$

False Consensus Bias

Measures of false consensus. We posit in Hypothesis 1 that participants who were asked to judge the ethicality of a decision would demonstrate false consensus by assuming that others made choices similar to their own. In keeping with the false consensus effect (Ross et al., 1977), people holding one view of the ethicality of a decision estimated the popularity of that view (i.e., the proportion of others who made the same choice) to be higher than did those not holding that view. This effect appeared for each of the six dilemmas in the marketing department (all p 's $< .01$), MBA students (all p 's = .01), and executive students (all p 's $< .01$) samples.

Dawes (1989) pointed out that existence of the traditional false consensus effect does not necessarily

provide evidence of a judgmental bias. Noting this, we examined whether our participants demonstrated Krueger and Clement's (1994) "truly false consensus effect" (TFCE) by examining within-individual correlations between item endorsements and estimation errors. If participants exhibited these within-individual correlations, we could infer that they were not merely engaging in the statistically appropriate Bayesian reasoning process of generalizing their own views to the population at large. We would know instead that there was a nonrational component to their social projection (see Krueger and Clement [1994: 596–597] for a full discussion of this point). We found strong evidence across samples that participants did demonstrate this bias. The average TFCE within-subject correlation was positive and differed significantly from

TABLE 3
Descriptive Statistics and Correlations, Executive Student Sample

| Variables | Mean | s.d. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|-----------------------------|-------|-------|------------------|------|------|-------|-------------------|-------|-------------------|------|-----|-------|------|
| 1. Estimated consensus | 68.60 | 13.24 | | | | | | | | | | | |
| 2. Actual consensus | 57.95 | 7.12 | .02 | | | | | | | | | | |
| 3. Actual network consensus | 0.44 | 0.12 | .16 | -.04 | | | | | | | | | |
| 4. In-degree centrality | 3.55 | 3.41 | .25 [†] | -.05 | -.04 | | | | | | | | |
| 5. Degree centrality | 7.08 | 5.94 | .31 | -.02 | -.15 | .88** | | | | | | | |
| 6. Betweenness centrality | 0.03 | 0.04 | .46** | -.06 | -.11 | .73** | .82** | | | | | | |
| 7. Closeness centrality | 0.41 | 0.07 | .36 | -.06 | -.08 | .74** | .90** | .76** | | | | | |
| 8. Gender | 1.25 | 0.43 | -.07 | -.21 | .04 | -.21 | -.26 [†] | -.12 | -.27 [†] | | | | |
| 9. Age | 35.58 | 3.95 | -.14 | -.03 | .01 | -.15 | -.08 | -.16 | .08 | -.21 | | | |
| 10. Asian | 0.28 | 0.45 | -.07 | -.19 | .02 | .17 | .11 | .06 | .15 | -.07 | .22 | | |
| 11. Latin | 0.21 | 0.41 | .05 | .11 | .08 | -.10 | -.15 | -.03 | -.14 | .03 | .08 | -.31* | |
| 12. Other non-U.S. | 0.12 | 0.32 | -.10 | -.03 | .04 | .07 | .06 | -.02 | -.02 | -.07 | .18 | -.22 | -.17 |

[†] $p < .10$

* $p < .05$

** $p < .01$

zero ($r = .26, p < .001$). Further, for 161 of the 239 participants in our samples, the correlation between endorsement and the difference between estimated and actual consensus was positive. The binomial probability of obtaining 161 or more positive correlations out of 239 total correlations is less than .001.

We chose to follow the suggestion of de la Haye (2000), who argued that the partial correlation between endorsement and estimated consensus with actual consensus controlled for better captures the existence of false consensus than does Krueger and Clement's (1994) truly false consensus effect metric. As she pointed out, both the error and endorsement component of the correlation used to calculate the TFCE also correlate with the actual popularity of a given belief or behavior. To create an unbiased, within-individual measure of false consensus, it is therefore necessary to partial out the popularity of the belief from the correlation between endorsement and estimated consensus (see de la Haye [2000: 572–573] for a full discussion). We conducted this test in each of our three samples. In keeping with our expectations, the average within-individual partial correlation was positive and significantly different from zero ($r = .68, p < .001$). Further, 85 percent of the partial correlations were positive. The binomial probability of obtaining this frequency of positive correlations by chance alone is less than .001. Taken together, these results provide strong evidence of false consensus.

Overestimation. One might read these results and wonder if they apply to those individuals whose ethical judgments were inconsistent with the majority view (i.e., less than 50 percent of their colleagues or classmates agreed with their choice), given that the potentially negative consequences of false consensus bias in ethical decision making pertain mainly to those who hold the minority opinion. In keeping with Hypothesis 1, people holding the minority view for each of the six dilemmas significantly overestimated the popularity of their viewpoints in the MBA (all p 's $< .01$) and executive (all p 's $< .05$) student samples. In the marketing department sample, the effect was significant for four dilemmas (all p 's $< .05$) and marginally significant in the remaining two. Table 4 is a comparison of actual with estimated consensus.

The presence of the false consensus effect or even the truly false consensus effect (Dawes, 1989; Krueger & Clement, 1994) does not necessarily indicate that an individual believes he or she is in the majority. Nevertheless, it is worth noting that for all six dilemmas in each of the three samples (including all three MBA subsamples), participants who

were in the minority camp estimated that the majority of their peers (i.e., greater than 50 percent) held the same view as they did.

We did not expect that people whose ethical judgments were in line with the majority view would overestimate the degree to which others held their beliefs (this effect has not been shown in previous work, such as the original studies conducted by Ross et al. [1977]). Indeed, people who held the majority view did not consistently overestimate consensus. As seen in Table 4, people holding the majority view overestimated the popularity of their response in only two of six dilemmas in each of our samples. For some dilemmas, those holding the majority view showed evidence of underestimation (this finding is consistent with those of other research on the false consensus bias).

Network Centrality Hypothesis

We tested Hypothesis 2, which posits a positive link between network centrality and false consensus bias, by examining the impact of multiple forms of network centrality. To understand the true individual effects of degree, betweenness, and closeness centrality, Kilduff and Tsai (2003) recommended that researchers simultaneously control for the other two centrality measures. Unfortunately, including the three measures of centrality simultaneously in the same regression equations in our samples revealed unacceptable levels of multicollinearity (a variance inflation factor [VIF] > 2.5 , tolerance $< .40$) (see Allison, 1999). We therefore entered data from all samples into one three-level hierarchical linear modeling (HLM) analysis that controlled for sample to determine the relative impacts of these different measures of network centrality.¹ Once we had done so, the level of multicollinearity became acceptable (VIF < 2.0 , tolerance $> .50$).

To test our main hypothesis regarding the link between network centrality and false consensus

¹ We also tested whether degree centrality (number of ties), when entered on its own, predicted the extent to which people believed more of their colleagues agreed with their decisions. Indeed, the more confirmed ties an individual had, the higher the estimated level of agreement in the marketing department, MBA student, and executive student samples. We then controlled for actual levels of agreement to test whether people with higher levels of degree centrality were more likely to demonstrate false consensus. Individuals' degree centrality scores positively predicted estimated levels of agreement even given control for the actual level. This effect was significant in all three samples.

TABLE 4
Actual Versus Estimated Consensus by Classification of Decision Means

| Sample and Dilemma | People Classifying Decision as Ethical | | | People Classifying Decision as Unethical | | | | | | | |
|-----------------------------|---|---|--|--|-----------|----------|---|--|----------|-----------|----------|
| | Actual Percentage Classifying Decision as Ethical | Estimated Percentage Classifying Decision as Ethical (s.d.) | | <i>t</i> | <i>df</i> | <i>p</i> | Actual Percentage Classifying Decision as Unethical | Estimated Percentage Classifying Decision as Unethical | <i>t</i> | <i>df</i> | <i>p</i> |
| <i>Marketing department</i> | | | | | | | | | | | |
| 1. Shifts | 52.9 | 65.3 (21.0) | | 2.5 | 17 | 0.02 | 47.1 | 58.4 (22.4) | 2 | 15 | 0.06 |
| 2. Supplies | 81.8 | 75.6 (15.5) | | -2.1 | 26 | 0.05 | 18.2 | 52.0 (27.0) | 3.1 | 5 | 0.03 |
| 3. Hire | 60.6 | 61.3 (16.6) | | 0.2 | 19 | 0.86 | 39.4 | 56.7 (21.8) | 2.9 | 12 | 0.01 |
| 4. Side business | 20.6 | 57.9 (9.1) | | 10.9 | 6 | <.001 | 79.4 | 57.5 (19.4) | -5.9 | 26 | <.001 |
| 5. Leave start-up | 57.6 | 69.8 (20.2) | | 2.7 | 18 | 0.02 | 42.4 | 50.0 (16.2) | 1.8 | 13 | 0.10 |
| 6. Layoffs | 12.1 | 60.0 (8.2) | | 11.7 | 3 | <.001 | 87.9 | 66.4 (18.7) | -6.16 | 28 | <.001 |
| <i>MBA students</i> | | | | | | | | | | | |
| <i>Section 1</i> | | | | | | | | | | | |
| 1. Shifts | 71.2 | 67.4 (16.3) | | -1.4 | 36 | 0.17 | 28.8 | 67.0 (17.0) | 8.7 | 14 | <.001 |
| 2. Supplies | 78.8 | 67.3 (16.6) | | -4.4 | 40 | <.001 | 21.2 | 51.4 (23.7) | 4.2 | 10 | <.01 |
| 3. Hire | 48.1 | 64.4 (15.2) | | 5.4 | 24 | <.001 | 51.9 | 65.2 (20.5) | 3.4 | 26 | <.01 |
| 4. Side business | 36.5 | 60.3 (18.7) | | 5.5 | 18 | <.001 | 63.5 | 62.0 (20.7) | -0.4 | 32 | .670 |
| 5. Leave start-up | 63.5 | 67.1 (14.6) | | 1.4 | 32 | 0.16 | 36.5 | 60.5 (18.8) | 5.6 | 18 | <.001 |
| 6. Layoffs | 21.2 | 56.4 (15.2) | | 7.7 | 10 | <.001 | 78.8 | 65.4 (17.2) | -5 | 40 | <.001 |
| <i>Section 2</i> | | | | | | | | | | | |
| 1. Shifts | 68.1 | 73.4 (19.4) | | 1.6 | 31 | 0.13 | 31.9 | 52.0 (18.1) | 4.3 | 14 | <.001 |
| 2. Supplies | 76.6 | 73.4 (17.2) | | -1.1 | 35 | 0.27 | 23.4 | 66.8 (25.6) | 5.6 | 10 | <.001 |
| 3. Hire | 48.9 | 61.6 (18.1) | | 4.2 | 22 | <.001 | 51.1 | 67.3 (17.2) | 4.6 | 23 | <.001 |
| 4. Side business | 31.9 | 54.0 (13.8) | | 6.2 | 14 | <.001 | 68.1 | 63.0 (16.8) | -1.7 | 31 | 0.10 |
| 5. Leave start-up | 67.4 | 73.5 (15.0) | | 2.3 | 30 | 0.03 | 32.6 | 59.0 (13.3) | 7.7 | 14 | <.001 |
| 6. Layoffs | 14.9 | 51.4 (17.7) | | 5.5 | 6 | <.001 | 85.1 | 55.5 (16.7) | -7.0 | 39 | <.001 |
| <i>Section 3</i> | | | | | | | | | | | |
| 1. Shifts | 67.9 | 75.6 (17.8) | | 2.7 | 37 | 0.01 | 32.1 | 51.4 (17.9) | 4.6 | 17 | <.001 |
| 2. Supplies | 73.7 | 69.1 (19.9) | | -1.5 | 41 | 0.15 | 26.3 | 51.7 (22.1) | 4.5 | 14 | <.01 |
| 3. Hire | 50.9 | 61.6 (18.1) | | 3.2 | 28 | <.01 | 49.1 | 60.2 (19.6) | 3.0 | 27 | <.01 |
| 4. Side business | 41.8 | 57.6 (19.9) | | 3.8 | 22 | <.01 | 58.2 | 63.9 (19.3) | 1.7 | 31 | 0.11 |
| 5. Leave start-up | 66.1 | 69.1 (15.9) | | 1.2 | 36 | 0.25 | 33.9 | 60.0 (12.5) | 9.1 | 18 | <.01 |
| 6. Layoffs | 30.9 | 62.6 (24.4) | | 5.4 | 16 | <.001 | 69.1 | 63.3 (18.6) | -1.9 | 37 | 0.06 |
| <i>Executive students</i> | | | | | | | | | | | |
| 1. Shifts | 54.7 | 77.6 (15.8) | | 7.8 | 28 | <.001 | 45.3 | 57.1 (23.1) | 2.5 | 23 | 0.02 |
| 2. Supplies | 69.8 | 71.3 (17.9) | | 0.5 | 36 | 0.61 | 30.2 | 63.1 (26.5) | 5 | 15 | <.001 |
| 3. Hire | 43.4 | 63.0 (18.4) | | 5.1 | 22 | <.001 | 56.6 | 68.8 (17.5) | 0.7 | 29 | 0.49 |
| 4. Side business | 20.8 | 59.2 (21.2) | | 5.8 | 10 | <.001 | 79.2 | 72.7 (22.5) | -1.9 | 41 | 0.07 |
| 5. Leave start-up | 60.4 | 70.1 (16.1) | | 3.4 | 31 | <.01 | 39.6 | 64.0 (20.2) | 5.6 | 20 | <.001 |
| 6. Layoffs | 17.3 | 57.2 (10.3) | | 11.5 | 8 | <.001 | 82.7 | 73.8 (20.9) | -2.8 | 42 | <.01 |

bias, we used three-level hierarchical linear random intercept models with estimated consensus as the dependent variable (Raudenbush & Bryk, 2002). This analysis allowed us to predict the degree of consensus each participant estimated for each dilemma (level 1) using characteristics of the individual (level 2) while controlling for each sample (level 3). Because the MBA student data were collected from three different sections of the same

course, we included separate dummy variables to capture whether the assigned section influenced the impact of network centrality on false consensus.

Following the suggestion of de la Haye (2000), we determined whether an individual-level variable influenced the size of the false consensus effect by testing whether the estimated levels of agreement were affected by the individual-level variables (i.e.

in-degree centrality, betweenness centrality, closeness centrality, and demographic variables) after controlling for the actual level of agreement. To facilitate interpretation of these results, we centered all continuous predictors (Cohen, Cohen, West, & Aiken, 2003). In addition to controlling for age and gender, we ran exploratory analyses within HLM to identify whether our measure of hierarchical status in the marketing department sample predicted estimated or actual levels of consensus. Given that status did not predict either estimated or actual consensus and given that we did not have such status differences in the other samples, we did not include it in the final models.

Table 5 presents the random intercept models for the combined samples. As shown in model 1 of Table 5, when all three measures of network centrality were included simultaneously in the same regression equation (e.g., Oh & Kilduff, 2008), betweenness centrality positively predicted estimated levels of consensus, whereas the effects of degree centrality and closeness centrality were not significant. The results of model 2, which regressed actual levels of consensus on the three measures of

centrality, indicated that no measure of centrality affected actual levels of consensus. Most importantly, model 3 showed that individuals' betweenness centrality scores positively predicted estimated levels of agreement even after we controlled for the actual level of consensus. In contrast, degree centrality and closeness centrality did not significantly predict estimated consensus when actual consensus was included in the HLM equation. Although not conclusive, these results suggest that the link between false consensus bias and network centrality may be driven by betweenness (being a broker who can control the flow of information in a network), rather than by network size or closeness centrality.

Supplementary Analyses

One alternative explanation for our results could be that people with higher levels of betweenness accurately estimate agreement among those individuals with whom they have ties, but not among the entire group. To test this possibility, we calcu-

TABLE 5
Results of Random Intercept Analysis of Combined Samples

| Dependent Variables | Model 1: Estimated Consensus | Model 2: Actual Consensus | Model 3: Estimated Consensus | Model 4: Estimated Consensus |
|--|------------------------------|---------------------------|------------------------------|------------------------------|
| <i>Fixed effects</i> | | | | |
| Intercept | 66.48*** | 61.91*** | 65.64*** | 66.11*** |
| MBA sample 2 | 1.17 | 0.59 | 1.03 | 1.17 |
| MBA sample 3 | -0.52 | -3.16 | 0.24 | -0.36 |
| Executive student sample | 3.07 | 2.34 | 1.95 | 2.42 |
| Marketing department sample | 2.52 | -1.39 | 3.39 | 3.99 |
| Degree centrality ^a | 0.16 | -0.11 | 0.19 | 0.16 |
| Betweenness centrality | 50.99** | -1.63 | 51.35** | 51.87** |
| Closeness centrality | 5.49 | 6.73 | 3.89 | 4.66 |
| Age | -0.09 | 0.14 | -0.12 | -0.09 |
| Gender | -2.36 | -1.81 | -1.93 | -2.29 |
| Asian | 0.83 | -1.08 | 1.08 | 0.90 |
| Latin | 0.51 | -0.93 | 0.73 | 0.71 |
| Other non-U.S. | 1.49 | -1.57 | 1.86 | 1.63 |
| Actual consensus in class | | | 0.24*** | |
| Actual consensus in help/advice network | | | | 0.05** |
| Variance Component (R^2) | | | | |
| <i>Random effects</i> | | | | |
| Level 1 | 288.96 (.01) | 344.18 (.02) | 268.80 (.08) | 287.11 (.02) |
| Level 2 | 58.94 (.18) | 0.25 (.06) | 59.47 (.17) | 57.82 (.20) |
| Deviance | 11,453 | 11,509 | 11,368 | 11,443 |
| χ^2 | 492.79*** | 186.50*** | 515.72*** | 489.37*** |
| Intraclass correlation | 0.17 | 0.00 | 0.18 | 0.17 |

^a Network size; a standardized measure of degree centrality was used in the analysis.

** $p < .01$

*** $p < .001$

lated another measure of actual agreement using only the responses from a participant's set of confirmed ties. We then ran a separate model using this alternative measure of actual consensus. As shown in model 4 in Table 5, only betweenness centrality remained a significant predictor of social projection when degree, betweenness, and closeness centrality were all included in the equation.

Having inflated estimates of agreement may be most problematic for people whose ethical judgments differ from the prevailing view. Noting this, we examined whether network centrality correlated with estimates of consensus for participants in the minority (less than 50 percent of respondents). These results can be seen in Table 6. When we examined only those cases in which an individual held the minority view, we found once again that betweenness centrality positively correlated with estimated consensus when actual consensus was controlled for. Neither degree centrality nor closeness centrality significantly predicted estimated consensus when under control for actual consensus.

DISCUSSION

We must not say that an action shocks the *conscience collective* because it is criminal, but rather that it is criminal because it shocks the *conscience collective*. We do not condemn it because it is a crime, but it is a crime because we condemn it (Durkheim, 1972: 123–124).

Ethical standards are derived from socially agreed upon principles and values (Turiel, 2002) that can change over time (McConahay, 1986) and vary among institutions (Weaver, Treviño, & Cochran, 1999) and national cultures (Haidt et al., 1993). Given that ethical standards often are clandestine, ethical decision making in organizations can be described as a problem of social judgment—determining where the majority of others stand on issues of moral concern. Individuals are motivated to consider the attitudes and opinions of their peers in order to assess where they stand relative to the norm and to help gauge others' reactions to their decisions. However, we found strong evidence in each of our samples that people are not very good at

TABLE 6
Results of Random Intercept Analysis of Projection of Minority Views in Combined Samples

| Dependent Variables | Model 1: Estimated Consensus | Model 2: Actual Consensus | Model 3: Estimated Consensus | Model 4: Estimated Consensus |
|--|------------------------------|---------------------------|------------------------------|------------------------------|
| <i>Fixed effects</i> | | | | |
| Intercept | 56.55*** | 37.93*** | 55.91*** | 56.94*** |
| MBA sample 2 | -2.01 | -4.07 | -0.90 | -2.49 |
| MBA sample 3 | -4.27 | -0.78 | -3.91 | -5.35 |
| Executive student sample | -5.50 | -3.79 | -4.43 | -3.71 |
| Marketing department sample | -2.38 | -0.88 | -1.95 | -0.76 |
| Degree centrality ^a | 0.09 | -0.21 | 0.13 | 0.07 |
| Betweenness centrality | 67.81** | 6.99 | 66.00** | 72.74** |
| Closeness centrality | 0.67 | 3.42 | -0.04 | -0.03 |
| Age | 0.04 | 0.13 | 0.00 | -0.14 |
| Gender | 2.96 | -0.29 | 3.11 | 2.79 |
| Asian | 0.36 | 0.14 | 0.32 | 0.55 |
| Latin | 5.43 | 0.53 | 5.17 | 3.16 |
| Other non-U.S. | 2.32 | 0.47 | 2.04 | 1.94 |
| Actual consensus in class | | | 0.24** | |
| Actual consensus in help/advice network | | | | 0.00 |
| Variance Component (R^2) | | | | |
| <i>Random effects</i> | | | | |
| Level 1 | 282.02 (.00) | 96.89 (.02) | 270.34 (.04) | 278.73 (.01) |
| Level 2 | 62.39 (.26) | 0.05 (.11) | 69.87 (.17) | 59.22 (.29) |
| Deviance | 4,068 | 3,484 | 4,060 | 3,897 |
| χ^2 | 317.63*** | 143.93*** | 234.71*** | 148.60*** |
| Intraclass correlation | 0.18 | 0.00 | 0.21 | 0.18 |

^a Network size; a standardized measure of degree centrality was used in the analysis.

** $p < .01$

*** $p < .05$

estimating the percentage of others who agree with their moral choices. Instead, they fall victim to a false consensus bias, wanting to believe that others are more like them than not.

Our findings challenge the idea that more central individuals in a social network tend to be more in line with shared ethical standards (Brass et al., 1998). Instead, we found that having higher levels of betweenness in an advice network (i.e., acting as a broker) may put people in a dangerous position when determining what they should do and whether their actions are in line with the prevailing moral view. When responding to an ethical dilemma, these individuals increased their estimates of agreement with their colleagues on ethical decisions, going significantly above and beyond any actual increase in agreement. In short, individuals who were positioned as brokers (i.e., had control over information flow in the network), including those who held the minority view, showed greater evidence of false consensus, wrongly assuming that their ethical judgments were in line with the majority of their colleagues.

Theoretical Implications

Research on ethical decision making in organizations has become increasingly focused on the psychological drivers of ethical judgment (Tenbrunsel & Messick, 2004). We add to this growing field of research by highlighting the influence of false consensus bias and suggesting that social projection might play a critical role in employees' judgments of ethical standards. We note the depth of existing research on false consensus (for a review, see Gross and Miller [1997]), which has identified situational and cognitive factors that reduce the magnitude of the bias, including differential construal (e.g., Gilovich, 1990), issue objectivity (e.g., Biernat, Manis, & Kobryniewicz, 1997), and attitude importance (e.g., Fabrigar & Krosnick, 1995). These moderating variables may be of interest to organizational ethics scholars, especially those attempting to identify potentially effective interventions.

A second, and relatively more noteworthy, contribution of the present research is the link between false consensus bias and social networks. Part of what shapes individuals' understanding of social norms, or consensus views, is their set of social relations. One might reasonably expect individuals with greater betweenness centrality to be less vulnerable to false consensus bias because they are more closely connected to other members of their referent group and enjoy an information-based advantage. By being well-connected, these actors appear to be in a better position to acquire infor-

mation that may be useful in formulating social judgments.

However, contrary to this straightforward assumption and some findings from previous research (e.g., Krackhardt, 1987), our results suggest that those individuals who have more advantageous positions in an advice network, specifically in terms of betweenness, are not necessarily more accurate in their judgments of others' views.

We suggest that part of what drives the connection between betweenness centrality and false consensus in ethical decision making is an underlying link between power and social judgment. However, we recognize that this link may not apply to other domains of decision making. Although ethical standards are socially shared, they often remain implicit. Brokers may be prone to overestimate their ability to diagnose ethical standards because personal moral values are not often shared; the same individuals may be much more accurate in diagnosing other social standards (e.g., dress code, speaking order at meetings) that are evident and perhaps explicit. Noting this, theorizing about the influence of network centrality on decision making in organizations should account for the type of decision being made and the availability of the data needed to make an informed decision.

Practical Implications

Overestimating support for one's ethical judgments may lead to costly decision making errors in organizations. Theories of moral reasoning emphasize the notion of consensus (Haidt, 2008), which Kohlberg (1969) described as the conventional approach to ethical decision making. According to Treviño, most managers adopt this conventional approach, looking "to others and to the situation to help define what is right and wrong, and how they should behave in a particular situation" (1986: 608). But what if their views of others are mistaken? Our results suggest an intriguing possibility: that some people who perform unethical acts could be confident that their actions are ethical because they hold a false expectation that others share their ethical views.

An intuitive solution to the problem of faulty social projection is developing more expansive advice networks (Ickes, 1997; Ickes & Aronson, 2003). However, our findings suggest that this solution might have the opposite effect—worsening individuals' social judgments. If having an advantageous position in an advice network actually predisposes people to be *more* susceptible to false consensus, ethics scholars need to account for this problem in offering useful advice to practitioners. Specifically,

greater insight into peers' ethical attitudes may be gained from having more meaningful interpersonal conversations rather than a more influential network location. Though acting as a broker can undoubtedly provide insight, such insight is likely limited to what people discuss or what they can easily observe. Moral attitudes often are unspoken and therefore require further investigation and interrogation.

Limitations and Directions for Future Research

In operationalizing ethical dilemmas, we chose to focus on right versus right decisions, rather than on unambiguously immoral acts. But perhaps false consensus bias is mitigated when an act in question is clearly unscrupulous. In a separate study, we attempted to investigate this possibility by using a set of ten "moral temptations," ranging from stealing office supplies to downloading files illegally at work. Following the same procedure described in the present study (but with this alternative operationalization), we found strong evidence of the false consensus bias once again. In each case, people overestimated the percentage of others who behaved similarly to them. Although this result is reassuring, additional research is needed to test whether our operationalization of ethical dilemmas influenced our results.

Additional research is also needed to clarify the psychological mechanisms that help explain our findings. Recent research by social psychologists offers compelling evidence that powerful actors tend to be poor perspective takers and that they tend to assume that others have views that are similar to their own—more similar than is actually the case (Galinsky et al., 2006; Gruenfeld, Inesi, Magee, & Galinsky, 2008). Future research might test whether this connection between power and perspective taking can help explain the link between network centrality and false consensus bias by measuring a focal individual's sense of power and examining whether it mediates between network centrality and false consensus bias or by manipulating the individual's sense of power (e.g., Gruenfeld et al., 2008) and examining whether it strengthens false consensus bias in ethical decision making.

We also proposed that members of organizations are susceptible to false consensus bias in making ethical judgments because people generally refrain from conversations about morality. A future study could test this idea directly by asking participants to estimate agreement on some topics they rarely discuss with others (ethics, sex) and some they regularly discuss (sports, kids). If our logic holds, we would expect to find less evidence of false consensus in estimates of the popularity of opin-

ions that are readily disclosed than in estimates of the popularity of those that are often withheld. One could also conduct an intervention in which coworkers are asked to meet and discuss ethical issues on a routine basis. Such an intervention might be effective in undermining false consensus bias if the content of the coworkers' conversations is relevant to their ethical decision making.

Finally, in our study design, we did not leave it up to the participants to select their referent groups. Instead, we identified a group for each participant to consider. As a consequence, we know that participants made their estimates with the same group of peers in mind. We chose to have people focus on the opinions of other members of their department or class because initial interviews indicated that the participants worked with these individuals closely and cared about their opinions deeply. However, if people were left to their own devices, would they consider a different referent group, and could this affect our results? We think it might. In a tight-knit circle of close colleagues, the exchange of moral opinions may be relatively more common because the sense of psychological safety is elevated, and this, in turn, may undermine any false consensus effect. In future research, this issue of referent group selection certainly deserves closer scrutiny.

Conclusion

Ethical decisions in organizations are calibrated according to what people believe to be the majority view, but having a more central position in the social structure seems to do little to help employees accurately calibrate their ethical judgments. Ethical pundits predict that "loners" are more likely to violate ethical standards because they lack insight into others' attitudes and opinions and have fewer colleagues to whom they can turn for help and advice. But is this true? Our research suggests that the social butterfly, rather than the social outcast, may be the more likely to misjudge whether an ethical judgment is in line with the normative view. The potential danger here is that employees who act in unethical ways could, in some cases, erroneously assume that their actions are in line with the socially shared ethical standard and only learn of their misjudgment when it is too late to avert the consequences.

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APPENDIX

Ethical Dilemma Scenarios

Dilemma 1: Shifts

You are in charge of testing a new software package that your company has recently developed. It will be

launched in a week, which means you will need to set up round-the-clock testing before then. You have to assign people to two teams—one daytime shift and one graveyard shift. You decide to let your married employees off of the graveyard shift because many of them have kids.

Dilemma 2: Supplies

You notice one of your best employees taking printer paper, highlighters, and post-it notes home in her laptop bag. This employee has worked at the firm for many years, but there is a rule against this and clear procedures for providing employees with supplies if they choose to work at home. According to company policy, you are required to fire this employee on the spot. You decide not to fire her.

Dilemma 3: Hire

Your colleague, who you consider to be a friend, is looking to hire a new manager in her department. She has identified an external candidate she would like to hire, but company rules require her to consider internal candidates first. She has asked you not to disclose to people within the company that she has already picked out an external candidate for the position. However, you know two employees in your area who would like to have this job, and each has asked you directly if your colleague has already picked someone for this position. You decide to tell them that she has not picked anyone yet.

Dilemma 4: Side Business

You work in a small division of a large company. Two of your colleagues, whom you are friends with outside of work, have been working on a new business venture together. Although it is against company policy, you notice that they have been spending a significant amount of time at work making plans for this new business. Despite their involvement in this side business, these colleagues have always made time to help you with the

issues you encounter at work. Your boss, who is concerned by the declining performance of your group, asks you if these colleagues are using company time to pursue interests not related to the company. You decide to cover for your colleagues and tell your boss that they are not using company time to pursue their own interests.

Dilemma 5: Leave Start-up

You manage a small company that is trying to secure an additional round of venture-capital financing. The firm employs five people, each of whom has an irreplaceable set of skills. If any of the five were to leave, the company would struggle to secure additional financing. One of the principal employees, whom you consider a friend, has recently informed you that he has received an extremely appealing offer from another company that is much more likely to succeed. The employee must make a decision in the next two days. Out of respect for you, this employee has told you that he will go to the other company only if you offer your blessing. You decide to discourage this employee from leaving out of concern for the group.

Dilemma 6: Layoffs

You manage a medium-sized company that is located in a small town. Unfortunately, you are forced to lay off a third of your workforce in six months time. You know that as soon as you announce the layoffs property prices in the small town will fall off considerably, as will the effort of the company's employees. One of your favorite employees, whom you admire very much, has been going through some hard times financially. You would like to give this employee some advance notice so that he could sell his house for a reasonable price. However, you know that if you tell him to sell the house there is a chance the rest of the company would read the sale as a sign that layoffs are imminent long before the planned announcement date. If this were to happen, not only would property prices drop, so too would firm productivity. Nonetheless, you decide to tell this employee to sell his house.

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