

## **SOCIAL NETWORKS AND ORGANIZATIONAL WRONGDOING IN CONTEXT**

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Theory and research on social networks has a long tradition in sociology, social psychology, and anthropology and an increasing presence in organizational studies. In this chapter, we critically review the embryonic but growing body of social network theory and research on misconduct in and by organizations. We structure our review around the three main areas of prior research: the role of social networks in the initiation, evolution, and consequences of wrongdoing. We use Brass, Butterfield, and Skaggs' (1998) seminal theoretical analysis of the role that social networks play in unethical behavior as the starting point for our review, which reaffirms, extends, and in some cases suggests modifications to their arguments. We tap a range of empirical studies on social networks and organizational misconduct, most importantly a series of investigations by Baker, Faulkner and associates (Baker and Faulkner 1993, 2003, 2004; Faulkner and Cheney 2014; Faulkner et al. 2003) to flesh out our discussion. We conclude that a comprehensive understanding of the role of social networks in wrongdoing in and by organizations hinges on several contextual factors that social network analyses sometimes overlook in the drive to use the patterns of relationships among wrongdoers and their victims as the dominant explanatory device. We end by suggesting several lines of inquiry that social network analysts might explore in connection with organizational wrongdoing in the future.

### **The Nature of Wrongdoing in and by Organizations**

One can conceptualize wrongdoing narrowly, to include only behaviors that violate a society's laws, or broadly, to include any behavior considered deviant from the standpoint of social norms and ethical principles. We conceptualize wrongdoing broadly, including behaviors ranging from the unethical to the illegal, so as to allow consideration of the full range of management theory and research on topics related to misconduct. This conception of wrongdoing does not eliminate ambiguity, as classifying behavior as unethical or even illegal is contingent on an audience's judgment. Judging a behavior as unethical depends on the subjective assessments of researchers and perhaps their subjects. Judging a behavior as illegal depends on the actions of formally established social control agents (e.g., law enforcement officers, government prosecutors, etc.). However, for the purposes of this chapter, we take researchers' definitions of behavior as either unethical or illegal for granted.

One can also conceive of organizations narrowly, to include only formally organized private sector businesses, or broadly, to include any informally organized group of mutually interacting individuals. Here we focus on business organizations, because this is the principle interest of management scholars. But in the conclusion we point to recent research on the role social networks play in the misconduct within other kinds of

organizations, including drug distribution rings, organized crime families, and terrorist groups.

Finally, one can distinguish between two ideal types of organizational wrongdoing. Some wrongdoing is perpetrated by individuals to advance their parochial interests at the expense of the organizations with which they are affiliated (sometimes referred to as occupational or white collar wrongdoing). Other wrongdoing is perpetrated by individuals to advance the interests of the organizations to which they are affiliated (sometimes referred to as organizational or corporate misconduct) (Clinard and Quinney 1973; Finney and Lesieur 1982). When social network researchers study prototypical occupational misconduct, they tend to focus on individuals and interpersonal relations. When they study prototypical organizational misconduct, they focus on organizations and inter-organizational relationships. The ideal types of occupational and organizational misconduct, though, are often difficult to distinguish in concrete cases of wrongdoing, which frequently benefit both organizational participants and their organizations. In this chapter we focus on individuals and interpersonal relations, regardless of the apparent beneficiaries and victims of the misconduct they perpetrate, because these relations are the focus of most social network analyses of misconduct in and by organizations. And for simplicity, we refer to the misconduct they perpetrate as organizational wrongdoing. In the conclusion we briefly consider the smaller body of social network analyses that focuses on organizations and inter-organizational relationships.

### **Types of Social Network Analysis**

Social network analysis focuses on the structure of relations among actors, how the structures arise, and how an actor's position in those structures shapes their outlook and behavior (Everton 2012). As such, it contrasts with modes of analysis that focus on the attributes of actors, ascribed (e.g., race and gender) and acquired (e.g., attitudes), as independent and dependent variables. Social network analysis is guided by both methodological and theoretical concerns. And while there is general agreement on the nature of network methods, which consist of well-accepted measures that describe network ties and structure (e.g., centrality, density, tie strength) and increasingly sophisticated mathematical algorithms that calculate these conceptually-based measures (e.g., clique detection methods and block models), there is divergence on the nature of network theory.

Some researchers strive to develop new social network theory; others strive to tease out the network implications of existing social theory. Burt's theory of structural holes (1992), which has its roots in the fundamental insights of Simmel (1950), represents the former theoretical enterprise. Papachristos's (2013) analyses of street crime, which operationalizes existing criminological theory on differential association, represents the latter. More fundamentally, some believe that social networks provide the micro foundations of social structure, while others understand networks as one type of social structure embedded in more encompassing structures such as market systems. Everton's (2012) analysis of terrorist networks, which derives its inspiration from Granovetter's (1973) classic work on labor markets, represents the former point of view. Orru, Biggart, and Hamilton's (1996) analysis of three Asian economies represents the latter. The research on organizational wrongdoing that we consider in this chapter

exhibits a relentless focus on social relationships among actors, the use of widely accepted sophisticated network measures and statistical algorithms to capture these relationships, and the full diversity of orientations to theorizing them.

## **The Initiation of Wrongdoing**

Scholars have explored how social networks influence the initiation of wrongdoing at two levels of analysis: the commencement of misconduct by individuals and the emergence of misconduct in groups.

### *Individual misconduct*

Brass and associates (1998) theoretical analysis of social networks and unethical behavior focuses primarily on individuals' social network relationships and the initiation of misconduct. They argue that social ties both offer actors opportunities to engage in unethical behavior vis a vis their tie partners and constrain actors' pursuits of such behavior. They then draw on this argument to develop seven formal propositions about the association between an individual's network ties and his/her propensity to embark on unethical behavior.

Brass and associates contend that three aspects of social ties create *opportunities* to engage in unethical behavior towards others. First, opportunities for a focal actor to behave unethically towards his/her tie partners increase when the actor's relationships with them become **asymmetrical** (i.e., when a focal actor perceives the relationship to be weaker than the tie partner perceives it to be). When ties are asymmetrical, the focal actor is less encumbered by the empathy and psychological proximity s/he might otherwise feel for his/her tie partner, who is then less likely to closely monitor the focal actor's behavior. Second, opportunities for a focal actor to behave unethically towards his/her tie partners also increase when the actor's relationships with them become **status imbalanced** (i.e., when the focal actor has power over his/her tie partners). When ties are status imbalanced, the focal actor is able to impose his/her unethical will on his/her tie partners. Finally, opportunities for a focal actor to victimize his/her tie partners also grow when the actor's local network contains numerous **structural holes**. When a focal actor's network contains structural holes, s/he is subject to less scrutiny by his/her tie partners and is thus less fearful of reputation loss if scrutinized (because his/her tie partners do not exchange information about the focal actor's behavior with each other).

In addition, Brass and colleagues maintain that four aspects of social ties *constrain* an individual's proclivity to engage in unethical behavior towards others. Constraints on a focal actor's proclivity to behave unethically towards his/her tie partners increase when the actor's relationships with them are **strong** (i.e., when they are characterized by frequent and intense interaction) and **multiplex** (i.e., when they facilitate many different types of relationships). When ties are strong and multiplex, a focal actor is more empathetic and psychologically close to his/her tie partners and has more to lose if they treat their tie partners unethically and are discovered to have done so. Consistent with this proposition, the inhibiting effects that social ties can have on an actor's proclivity to engage in unethical behavior vis a vis a tie partner also grow as the focal actor's **centrality** in their global network grows and the **density** of his/her global

network increases. Central actors embedded in dense networks are subject to greater scrutiny and increased reputation loss if scrutinized and found to have behaved unethically.

On the basis of these arguments, Brass and associates develop propositions that have three important features. First, the propositions pertain to the magnitude of the *enabling or inhibiting effects* that social ties can have in regards to unethical behavior. Second, they stipulate that the magnitude of the enabling or inhibiting effects that social ties can have regarding unethical behavior depends on an individual's general propensity to engage in such behavior. Third, they assume that an individual's general propensity to engage in unethical behavior is a function of individual factors (e.g., moral development), organizational factors (e.g., incentive systems and culture), and issue-related factors (e.g., the seriousness of the potential ethical breach). For example, Brass and associates' first proposition states that "the effects of the constraints of strong relationships on unethical behavior will increase as the constraints of characteristics of individuals, organizations, and issues decrease and vice versa."

Brass and associates' propositions do not lead to hypotheses that are easy to test. First, they specify that social ties affect *opportunities* or *constraints* to engage in unethical behavior towards tied others, which are not directly observable. Second, they specify that the impact of social network ties on opportunities and constraints hinges on an individual's multidimensional general disposition to engage in unethical behavior, which means that the hypotheses derived from their propositions specify complex interaction effects that are difficult to estimate. As a result, direct tests of most of Brass and colleagues' propositions are absent from the literature. Nonetheless, their theoretical arguments are extremely important because, as will be shown below, they inform much extant social network research on the initiation, evolution, and consequences of organizational misconduct.

### *Group misconduct*

Much wrongdoing in organizations is collective in nature, involving multiple interacting individuals in pursuit of a common malevolent objective. Brass and associates also consider how wrongdoing of this sort might arise. They contend that as organizations grow in size, informal groups consisting of similar interacting organizational participants emerge. As the strength and density of the ties among group members increase, the likelihood that groups will treat other similar emergent groups unethically also increases. Brass and associates maintain in-group and out-group biases underpin this tendency. Though their proposition hasn't been tested directly, recent work in social psychology attests to the role that in-group/out-group bias plays in unethical behavior. In a series of experiments, Waytz and Epley (2012) documented how merely thinking about the social connections one has with others increases one's likelihood of dehumanizing others. They argue that when one's need to be connected to others feels met, one can more easily treat outsiders harshly. Their findings support the notion that in-group biases—activated through thinking about one's social connections—may increase the likelihood that group members will behave unethically towards out-group members.

Brass and colleagues' proposition about the ethical dangers of cohesive (tightly connected) groups also echoes Janis' work on "groupthink" (1983). Janis maintained that cohesive groups, strongly and densely connected by definition, lead members to see themselves as morally superior and outsiders as morally inferior, and, as a result, deserving of harsh treatment. Further, he argued that these tendencies were particularly likely to manifest in contexts where group members perceived themselves to be under attack by a common enemy. Consistent with this formulation, Gerald Mars documented how subgroups of hotel employees (1973) and dock workers (1974) organized as subgroups to pilfer from their organizations. Similarly, Raven (1974) showed that the Nixon administration's insular inner circle stressed the need to hit hard against all enemies of the administration, which contributed to the relaxation of moral restraints that characterized the Watergate scandal.

### **The Evolution of Wrongdoing**

Scholars have also explored two ways in which social networks influence the evolution of organizational wrongdoing: via the entrapment of new victims and the recruitment of additional perpetrators.

#### *The extension of wrongdoing to increasing numbers of victims*

Several studies examine the extent to which the owners and managers of fraudulent business (hereafter, "principals") extend their illegitimate activities to increasing numbers of victims. Brass and associates' (1998) propositions about the initiation of misconduct imply that the principals of illegitimate businesses will make less use of their strong ties to potential victims when expanding the scope of their illegitimate activities, because strong ties are associated with affective bonds that inhibit people from taking advantage of tie partners. Their propositions also imply that the principals of illegitimate businesses will make less extensive use of their victims' social ties when recruiting additional victims, because expanding in this way tends to result in dense networks of duped victims, which increase the likelihood that the suspicions that arise among victims of fraudulent enterprises will diffuse quickly and amplify, increasing the likelihood that the enterprise's fraudulent character will be unearthed and broadcast.

Baker and Faulkner analyzed the extension of wrongdoing to an increasing number of victims in connection with a fraudulent oil and gas exploration investment scheme (2003, 2004). Fountain Oil and Gas began as a legitimate company, but its principals progressively engaged in two related frauds: they misrepresented the firm's success to investors and obscured investors' losses by transferring funds from some investors' accounts to others. Baker and Faulkner found, contrary to the implications of Brass and associates' arguments, that Fountain's principals expanded their firm's reach through their direct contacts and through their existing investors' ties at roughly the same rate as the principals of legitimate enterprises have been shown to do (see Dimaggio and Louch 1998). They also found that Fountain's principals actively encouraged their investors to refer their friends to the firm, although their investors tended to resist such entreaties.

Baker and Faulkner attribute these unanticipated results to two characteristics of the misconduct in question. First, Fountain's misconduct was an intermediate fraud, in

which the principals began their efforts as a legitimate enterprise and only later redirected their efforts in an illegitimate direction. Thus, Fountain's recruitment of investors followed a pattern typical of legitimate enterprises. The authors speculate that their results might look different had they studied a pre-planned fraud such as a classic Ponzi scheme. Second, Fountain's misconduct involved recruiting individuals to take advantage of presumably limited investment opportunities, a feature of both classic and evolved Ponzi schemes such as the one orchestrated by Bernie Madoff (Henriques 2011). Thus, Fountain's investors' were disinclined to cave in to the company's (apparently self-defeating) entreaties to recruit new investors. The more new investors recruited to Fountain, the fewer investment opportunities would remain for current investors.

Another study analyzing the extension of fraud to increasing numbers of victims appears to contradict both the implications of Brass and colleagues' arguments and Baker and Faulkner's results. Nash and colleagues (2013) investigated the ERON Mortgage Corporation fraud, in which investors were recruited for bogus investment opportunities and paid off with prior investors' outlays. They found that ERON's principals recruited victims from their strong tie networks and actively stimulated the spread of the fraud through their initial victims' family and friends, generating exponential growth in the fraud's size typical of legitimate innovations' patterns of diffusion. Perhaps ERON's principals were able to grow their illegitimate business through strong ties, contrary to the implications of Brass and associates' argument about strong ties, because ERON's victims more strongly tied to the firm's principals than the firm's principals were to them. If so, this would dovetail with Granovetter's implicit observation that strong ties enhance opportunities for malfeasance *when they are asymmetrical* (1985, p. 491). Perhaps ERON's principals were able to spread their fraud at an exponential rate through the victim's family and friends, whereas Fountain's principals were not, because ERON's victims did not think the investment opportunities of which they were availing themselves were limited in nature.

#### *The diffusion of wrongdoing to increasing numbers of perpetrators*

Brass et al. (1998) consider two ways in which network relationships can shape the spread of unethical behavior to increasing numbers of perpetrators. First, they maintain that unethical behavior tends to spread from those already engaged in unethical behavior to others with whom the unethical actor is tied, especially when the tie is strong. The mechanism they contend underpins this "cohesion" effect is social influence, the tendency of actors who interact directly, frequently, and empathetically to develop similar attitudes and behaviors. A raft of psychological studies suggest that being directly tied to others engaged in unethical behavior increases a person's propensity to engage in unethical behavior (Gino et al. 2009a; Gino et al. 2009b; Robinson et al. 2014; Zey-Ferrell and Ferrell 1982; Zey-Ferrell et al. 1979)

Brass and associates' cohesion argument follows the lead of Edwin Sutherland's classic differential association theory of white-collar crime (1949/1983). But it makes incomplete use of Sutherland's theory, which holds that direct ties with white-collar criminals also transmit motives, techniques (including techniques of neutralizing guilt), and resources for engaging in crime (Ashforth and Anand 2003; Caravita et al. 2014; Sykes and Matza 1957). Moreover, Brass and associates' argument fails to take into

account learning theorists' argument that organizational participants who are tied to others engaged in wrongdoing receive information about the costs and benefits of engaging in wrongdoing (Manz and Sims 1981; O'fallon and Butterfield 2012). These additional mechanisms set in motion by ties to deviant others imply more complex empirical associations between network position on the one hand and the propensity to engage in wrongdoing on the other. Specifically, insofar as ties can transmit information about the costs of engaging in wrongdoing and insofar as information can be transmitted through indirect as well as direct ties, they imply that ties to deviant peers, both direct and indirect, can suppress the likelihood of engaging in wrongdoing.

Palmer and Yenkey's (2015) analysis of the use of banned performance enhancing drugs (PEDs) in professional cycling indicates that this learning mechanism was at work in advance of the 2010 Tour de France. They show that competitors who had direct and indirect ties (operationalized as common team memberships) to peers who had known prior involvement with PEDs and received *no* sanctions for their involvements were *more* likely to have used PEDs in advance of the 2010 Tour. But competitors who had direct and indirect ties to peers who had known prior involvement with PEDs and received *severe* sanctions for their involvements were *less* likely to have used PEDs in advance of the Tour. Palmer and Yenkey's analysis also suggests that the institutional context in which the wrongdoing is situated can moderate the impact of other mechanisms of diffusion. They found little evidence that ties to peers who had known prior involvement with PEDs, undifferentiated by sanction, influenced rider PED use in advance of the 2010 Tour. They speculate that this reflects the fact that almost all of the riders competing in the 2010 Tour de France (the sports' penultimate race) had been active in the professional ranks in the early years of the new decade (2000-2008) and that PED use was pervasive in that period. Thus, all riders competing in the 2010 Tour were likely well acquainted with the logic and techniques of PED use at this time, irrespective of their teammates' known prior involvement with PEDs.

Second, Brass and associates maintain that unethical behavior spreads from unethical actors to other actors that maintain the same types of relationships as the unethical actor. The mechanism underpinning this "structural equivalence" relationship is social comparison. They contend that actors who maintain similar relationships with others tend to look to one another to determine how to think and behave. To the best of our knowledge, no one has examined how structural equivalence influences the diffusion of misconduct, perhaps because it is difficult to distinguish structural equivalence based mimicry from role pressures.

Stuart and Moore's (2015) study of the enforcer role in professional ice hockey illustrates how mimicry based on structural equivalence and role pressures might be confounded in the spread of misconduct. It is common for professional hockey teams to allocate one player, known as the enforcer, to a role dedicated to breaking the rules that govern acceptable physical contact between competitors. Stuart and Moore found that teams with a designated enforcer suffer performance declines when he is injured. In fact, team performance is more negatively affected when an enforcer is injured than when other players are injured, suggesting that this dedicated rule-breaking role is valuable to teams, and its value is one reason why the role has diffused throughout hockey. This argument is consistent with Pinto, Leana and Pil (2008), who argue that role equivalence can be a mechanism for the diffusion of corruption in that, when it

becomes apparent that a corrupt role (such as an enforcer in a hockey team, or a sales agent offering kickbacks) is valuable, similar organizations will adopt the practice, so as not to lose out on the competitive advantage it brings.

## **The Consequences of Wrongdoing**

Finally, scholars have examined how social networks impact three consequences of wrongdoing: perpetrators' payoffs, victims' exposure to harm, and perpetrators' susceptibility to detection and punishment.

### *Perpetrators' payoffs*

Brass and associates' (1998) theoretical analysis of how individuals' social ties influence their propensity to engage in misconduct has implications for the study of individuals' capacity to reap benefits from the wrongdoing they perpetrate. If ties create opportunities to engage in misconduct as well as impose constraints on wrongdoing, then ties should also influence wrongdoers' capacity to reap benefits from their misconduct. To the best of our knowledge, only one study has attempted to explore this line of inquiry. Jancsics (2015) analyzed the illegal transfer of resources via brokers from private citizens to state and private sector organizations in Hungary. His analysis suggests that brokers who know the greatest number of willing agents and in-need clients are in the best position to sustain a profitable corrupt brokerage business, as they are in the best position to develop and maintain a steady stream of successful corrupt transactions.

The bulk of research on the payoffs of wrongdoing, though, focuses on collective wrongdoing; in particular, misconduct that takes the form of conspiracies in which multiple actors intentionally orchestrate their behavior to accomplish an illegitimate objective. For example, Ahern (2015) has studied insider-trading rings in which persons with access to private information pertaining to a firm's likely future stock price share that information with others who buy or sell the firm's stock to reap illegal profits. Using data from the Securities and Exchange Commission (SEC) and Department of Justice (DOJ) to identify the players in 183 insider trading networks, he found that insider traders share strong social connections—23% of the sample are family members, 74% met before college, and 19% met during college—suggesting that individuals share potentially profitable insider tips to close others. He also finds that insiders earn returns of 35% over 21 days, an average of \$1.3 million average per tip. Traders farther from the original source earn lower percentage returns, but higher dollar gains, due to larger investments.

Most research on the payoffs of collective wrongdoing focuses on the tradeoff between the secrecy and efficacy benefits of different types of ties and network structures. This work tends to assume that the need for secrecy limits and even dominates the need for efficacy in the construction of conspiracies (Baccara and Bar-Isaac 2008; Baker and Faulkner 1993; Lehman and Ramanujam 2009; Morselli et al. 2007). Brass and associates (1998) theorize that conspiracies will “leak” less information to those who seek to control them when they are small, sparsely connected, and composed of weak ties. For this reason, they predict that the organizers of conspiracies will typically recruit only the minimum number of co-conspirators necessary to achieve the



conspirators' goals and, importantly, will recruit co-conspirators to whom they are only weakly tied and who have no relationships with existing co-conspirators. This prediction contrasts with their argument about the way in which wrongdoing diffuses between perpetrators operating in parallel (as opposed to in tandem), which they contend diffuses via strong ties.

Aven's (2015) study of corrupt networks at Enron tests Brass and associates' predictions about the strength and density of social ties linking conspiratorial wrongdoers. She analyzed email communications between Enron employees involved in six projects, three of which were legal endeavors and three of which were corrupt. She found that the employees involved in the corrupt projects tended to engage in less frequent and fewer reciprocal communications with their co-conspirators during the initial phase of the projects. However, reciprocal communication and local network density increased over the life of the conspiracies, presumably because conspirators came to trust that their co-conspirators would not defect and rat them out. If her findings generalize, they suggest that co-conspirators' subjectively perceived need to employ secrecy protecting network structures declines over the life course of a conspiracy.

Although conspiracies must organize with secrecy in mind, they also must take into account efficacy considerations. Baker and Faulkner (1993) explored this tension in their study of corruption in the heavy electrical equipment industry in the 1950s, which involved the rigging of bids for turbines, switchgear, and transformers sold to state and municipal governments in the US. They theorized that secrecy considerations would dictate that the conspiracies would be organized in a sparsely connected and decentralized fashion, but efficacy considerations would dictate that they be organized according to variable task requirements. In Baker and Faulkner's assessment, the bid rigging of switchgear and transformer contracts was relatively straightforward, which small group research suggests would be most efficiently accomplished in a sparsely connected and centralized fashion. However, in their judgment, the bid rigging of turbine contracts was more complex, which small group research suggests would be most efficiently accomplished in a densely connected and decentralized fashion. Baker and Faulkner found that the switchgear and transformer conspiracies were relatively sparsely connected and *decentralized*, which suggested that secrecy imperatives dominated efficacy considerations in these conspiracies. However, the turbines conspiracy was densely connected and *centralized*, which suggested that efficacy imperatives tempered secrecy considerations in this conspiracy. That is the relative importance of secrecy and efficacy imperatives were contingent on the complexity of the conspiracy in question. Further, they concluded from supplemental qualitative analysis that this intermediate result reflected the turbine conspirators' need to resolve numerous conflicts in secret, which required extensive communication between the conspiracy's leaders and the multitude of rank and file co-conspirators.

In a follow up study that focused solely on the turbines conspiracy, Faulkner and associates (2003) examined the relationship between conspiracy structure and efficacy more directly. In this study, they theorized and found that the conspiracy generated the most collusive (above market) prices for transformers in fiscal quarters when co-conspirators engaged in more continuous interactions (i.e., were densely connected via strong ties). Yet the relationship between the continuity of interaction among co-

conspirators and the efficacy of the conspiracy was complex. Up to moderate levels of interaction continuity, conflict among co-conspirators decreased. But beyond moderate levels of interaction continuity, conflict intensified, because (the authors presume) the opportunities for conflict multiplied, leading to contradictory effects. On one hand, conflict dampened rates of interaction, undermining the conspiracy's efficacy. On the other hand, conflict increased direct involvement from high-level corporate officials, which increased the conspiracy's efficacy. Qualitative analysis of detailed descriptions of bi-weekly co-conspirator meetings suggests the conspiracy followed a cyclical pattern. Meetings were called, co-conspirator ties became dense and strong, and the conspiracy produced intended results. After a time, though, the continuity of interaction among co-conspirators and/or exogenous shocks (such as co-conspirator defections and market downturns) generated conflicts that eroded continuity of interaction and conspiracy efficacy. These problems precipitated the involvement of high-level corporate officials who then got the conspiracy back on track.

Taken together, Aven's study of illegitimate deals at Enron (2015) and Baker, Faulkner, and associates' two studies of bid rigging in the heavy electrical equipment industry (Baker and Faulkner 1993; Faulkner et al. 2003) suggest that the heterogeneity of co-conspirator interests and thus the level of co-conspirator conflict influence which social network structures will be most efficacious for conspiracies. In the conspiracies studied by Aven, all of the conspirators were employees of Enron and thus had common organizational interests. In the conspiracies studied by Baker and Faulkner, the conspirators represented different firms and thus had divergent interests. The commonality of interests in the former case gave rise to sparsely connected conspiracy networks, whereas the divergence of interests (and resultant conflicts) in the later case made centralized and densely connected networks more effective.

#### *Victims' exposure to harm*

Brass and associates' (1998) analysis of how individuals' social ties influence their propensity to engage in misconduct also has implications for the study of potential victims' exposure to harm. Most obviously, their argument that strong ties constrain potential wrongdoers from treating their tie partners unethically implies that persons who maintain strong ties to persons engaged in misconduct will be insulated from victimization.

Baker and Faulkner's (2003) study of the Fountain Oil and Gas intermediate fraud explored the potentially insulating effect that strong ties to the firm's principals might have on the likelihood that investors were victimized, as measured by investors' total loss of their outlay. They found that investors who had strong ties to the company's principals simultaneously benefited and suffered from their relationships to the principals, relative to investors who maintained only arms length ties to the company's principals. Having strong ties to Fountain's principals reduced the likelihood that investors lost all of their money, even controlling for the extent to which investors conducted due diligence in connection with their investments, presumably because Fountain's principals felt empathy for their strong tie partners or because they feared the reputational damage that might result from victimizing them. But having strong ties to Fountain's principals reduced the likelihood that investors conducted due diligence,

presumably because strong tie investors trusted the principals. And failure to conduct due diligence increased the probability that investors lost their entire outlay.

Coupled with Baker and Faulkner's findings about how Fountain's principals recruited investors, this suggests that the principals recruited investors from their strong tie network, and as the firm's legitimate enterprise evolved into a criminal one, they took advantage of the fact that these strong tie investors were less inclined to conduct due diligence on their investments. In a sense, Fountain's principals were of "two minds" in their pursuit of fraud. Thus, the effect of strong ties on the likelihood of victimization was complex. In fact, Baker and Faulkner found qualitative evidence that demands for high returns voiced by investors with whom Fountain's principals were strongly tied might have been one of the forces compelling the principles to move funds from weakly tied investors' better performing wells to the strongly tied investors' underperforming wells.

Several studies of pre-planned frauds contradict more thoroughly Brass and associates' (1998) implicit contention that strong ties to wrongdoers insulate individuals from victimization. Anecdotal evidence on classic Ponzi schemes suggests that the first victims of such schemes tend to be members of the initiator's family (Lowry 1988), professional community (Iowa Securities Bureau 2001), or ethnic community (Kirby and Hanna 1994). Nash and colleagues' analysis of the ERON Mortgage Corporation fraud suggests the same (2013). This is consistent with the results of research on the *expansion* of pre-planned frauds as well as Granovetter's (1985) observation that strong ties may create enhanced opportunity for malfeasance when they are asymmetrical (i.e., when the Ponzi schemer or mature intermediate fraudster is less attached to his/her victims than vice versa).

#### *Perpetrators' susceptibility to detection and punishment*

Brass and associates (1998) also offer arguments related to the detection and punishment of wrongdoers involved in conspiratorial misconduct, contending that if a conspiracy is uncovered, the most central conspirators will be at greatest risk of being fingered and punished. Baker and Faulkner (1993) tested this prediction in their study of price-fixing in the heavy electrical equipment industry. They found that occupying a central position in a conspiracy was associated with increased risk of being fingered and punished, but only in the case of the turbines conspiracy, which was organized in a centralized and densely connected fashion. Thus, the impact of centrality on risk of detection and punishment depended on the structure of the network in which a perpetrator was embedded. Further, Baker and Faulkner found that even in the turbines case, centrality only increased a perpetrator's risk of indictment, conviction, and punishment when it was characterized by "degree centrality" (the number of ties individuals have to others in the network). Individuals' "betweenness centrality" (the number of ties an individual has to actors who are not tied to each other), one measure of brokerage, was not predictive of punishment.

Faulkner and Cheney (2014) offer the opposite argument in their analysis of the Watergate conspiracy. They proposed that persons who occupied brokerage positions in that conspiracy enjoyed privileged status during the illicit enterprise, but were subject to greater risk of conviction and punishment once their illicit activities were

brought to light. Consistent with this prediction, they found that individuals were more likely to be testified against, to be found guilty, and to be sentenced to long prison sentences if they were tied both to the tightly connected core of the conspiracy (President Nixon and his inner circle) and to the multiple tightly connected cabals that carried out the core's illicit objectives (e.g., the group known as the "plumbers" that installed the illegal wiretap in the Democratic National Committee's headquarters), compared to those occupying other positions in the conspiracy's network. They speculated that serving as a broker increased conspirators' risk of detection and prosecution in the Watergate conspiracy because they were engaged in a political as opposed to an economic conspiracy.

Finally, there is a growing body of research that explores how social network position influences the extent to which actors *associated* with wrongdoers are punished for that tie, an effect known as "stigma by association." Both Pozner (2008, and Pozner & Harris, this volume) and Wurthmann (2014) have found that the directors of corporations discovered to have engaged in misconduct are penalized in the market for corporate board appointments, losing more and obtaining fewer board positions in the years following the detected fraud. However, directors' social networks provide a buffer that can mitigate these penalties. Pozner (2008) demonstrates that this penalty is diminished in the case of high status directors, where status is measured partly by a director's centrality in the corporate interlock network, and Wurthmann (2014) shows that this penalty is mitigated for directors with upper class origins and presumably upper class social network connections.

## **Paths Forward**

### *Taking greater account of context*

Our review of existing network theory and research on organizational wrongdoing indicates that the role social networks play in the initiation, evolution, and consequences of wrongdoing depends on contextual factors, in a way that has not been acknowledged by prior theorizing and empirical research. We discuss four primary contextual factors surfaced by our review below.

*Individual propensities to engage in misconduct.* Arguably the most important contextual factor that moderates how social network ties and structure influence misconduct is the extent to which potential wrongdoers are predisposed to engage in misconduct. Most of Brass and associates' (1998) propositions are based on the assumption that an individual's social ties do not directly influence his/her propensity to treat his/her tie partners unethically. Rather, they stipulate that an individual's social ties only influence his/her propensity to treat his/her tie partners unethically when s/he has a general inclination to engage in unethical behavior, which itself is a function of individual factors (e.g., moral development), organizational factors (e.g., organizational culture), and issue-related factors (e.g., moral intensity). We agree with the general thrust of Brass and associates' propositions, but think the relationship between potential wrongdoers' predisposition to treat others unethically, their social network ties, and their propensity to engage in misconduct towards their tie partners might be even more complex than Brass and associates theorize.

First, theory suggests that the opportunity to engage in a behavior and reap the rewards that flow from it influences one's motivation to engage in the behavior (Nadler and Lawler 1977). Thus, any aspect of a person's social network position that might create opportunities for him/her to engage in misconduct should increase the person's propensity to treat his/her tie partners unethically. As an example, research indicates that actors who possess power and exert influence over others become predisposed to treating these others unethically (Keltner et al. 2003). Thus, the degree to which a focal actor's social ties to others are status (power) unbalanced should also increase his/her propensity (not just his/her opportunities) to treat his/her tie partners unethically. Similarly, the extent to which a focal actor occupies a brokerage position should increase his/her propensity (again, not just his/her opportunities) to treat his/her tie partners unethically, because brokers tend to have power over their tie partners.

Second, logic suggests that individuals' predispositions to engage in misconduct will influence the network ties they develop. Brass and associates' propositions pertain to the tendency of organizational participants to behave unethically towards people to whom they are *already* tied. But their arguments can be extended logically to situations in which the predisposition to engage in wrongdoing *precedes* the formation of social ties. Specifically, Brass and associates imply that individuals predisposed to treat others unethically may create social ties and social tie configurations with others that create opportunities for and relax constraints against unethical behavior towards others. Thus, fraudsters seeking to take advantage of investors will strive to create asymmetrical and status-imbalanced relationships with their intended marks.

*The nature of the wrongdoing.* Another contextual factor moderating the role that social networks play in misconduct is the nature of the wrongdoing in question. The importance of this contextual factor has remained largely hidden in extant research, because most studies focus on one type of wrongdoing. For example, our review suggests that the effectiveness of different types of network structures and the consequences of different network positions for individuals in conspiracies vary between "intermediate fraud," such as the Fountain Oil and Gas fraud, and pre-planned wrongdoing, such as the ERON Mortgage Corporation fraud. Similarly, our review suggests that the network structure of misconduct varies depending on whether misconduct is contained in a single organization, as was the case at Enron, or spans multiple organizations, as was the case with the bid rigging conspiracy in the heavy electrical equipment industry.

We think the nature of misconduct in which perpetrators are engaged might be differentiated in a more refined fashion. For example, not all intermediate frauds are alike. While all begin with actors pursuing legitimate business opportunities, some result in actors pursuing piecemeal illegitimate behaviors (the case of Fountain Oil and Gas) and others result in actors pursuing comprehensively illegitimate business models (the case of evolved Ponzi schemes). Further, we think the nature of misconduct might be differentiated along other dimensions. For example, in the case of large organizations, misconduct may be contained in relatively delimited parts of the firm (the case of insider trading conspiracies) or may permeate the entire organization (such as "boiler room" stock brokerages). We suspect the role that social networks play in the initiation, evolution, and consequences of misconduct will vary across these additional types of organizational wrongdoing as well.

*The institutional context.* The institutional context in which misconduct is embedded also moderates the role that social networks play in misconduct. Our review indicates that institutional contexts vary across organizational fields in ways that influence the relationships between social networks and misconduct. For example, Baker, Faulkner, and associates' several studies on organizational conspiracies suggest that the effect of a co-conspirators' network location on his/her risk of detection and punishment varies depending on whether the conspiracy unfolds in a political as opposed to an economic environment. Additionally, our review suggests that institutional contexts vary within organizational fields over time in ways that influence the relationships between social networks and misconduct. For example, Palmer and Yenkey's study of PED use in professional cycling suggests that the impact of a cyclist's peer relationships on his/her propensity to use PEDs was relatively limited in the latter part of the 20<sup>th</sup> century when PED use was normative and thus ubiquitous, but became increasingly important in the current period when PED use is increasingly counter-normative and more constrained.

We think other dimensions along which institutional contexts vary might also have a profound impact on the role that social networks play in the initiation, evolution, and consequences of organizational misconduct. Most obviously, institutional contexts vary significantly across geopolitical space. Comparative economic sociologists have demonstrated that nations differ with regard to the role social networks play in economic behavior (Orri et al. 1996). It is thus likely that the relationship between social networks and misconduct also varies across national environments. For example, different nations are characterized by unique legal and cultural environments that practical knowledge and some research indicate exhibit noticeable differences in the level of misconduct (Fisman and Miguel 2007).

*Temporal dynamics.* Finally, temporal dynamics also moderate the role that social networks play in misconduct. For example, in the illegitimate Enron deals studied by Aven (2015), the ties among conspirators became increasingly reciprocal and dense over time, reflecting the increased trust and thus ease of coordination among participants. Further, evidence of the network structure of the turbines bid-rigging conspiracy studied by (Faulkner et al. 2003) reveals that temporal dynamics can be non-monotonic. In that conspiracy, the density of interaction among co-conspirators oscillated between sparse and dense connections, depending on the level of conflict among conspiracy participants that itself was partly a function of exogenous factors.

We suspect that more comprehensive attempts to study the moderating role of temporal dynamics will have to take into account one or more of the other three contextual factors surfaced by our review. For example, temporal dynamics likely vary across types of misconduct. This is evident in Baker and Faulkner's analysis of the Fountain Oil and Gas intermediate fraud. They found that when Fountain's principals were growing their legitimate business, they tapped their strong tie network for investors, presumably because they believed that persons with whom they maintained strong ties were more likely to support their business. But when Fountain's principals began to engage in illegitimate practices, they protected those with whom they had strong ties, presumably because they had affective bonds with those investors or feared the disapproval and perhaps reputation loss that might follow harming them. Clearly contextual factors can have multifarious and interrelated effects on the relationships

between social networks and misconduct. Researchers might do well to explore these effects in greater depth and breadth in the future.

#### *Other avenues for exploration*

*Adopting a more fine-grained conceptualization of tie type.* Social network theorists and researchers tend to focus on the distinction between two broad classes of ties; strong ties (typified by frequent and reciprocal relationships) and weak ties (typified by infrequent nonreciprocal relationships). While this basic distinction is useful, it does not tap the wide range of relationships that social ties can facilitate. We think that a more fine-grained approach to characterizing the types of ties between perpetrators, co-conspirators, and victims might lead to a more comprehensive and in some instances different understanding of the role social networks play in the initiation, evolution, and consequences of organizational misconduct. For example, Jancsics' (2015) qualitative study of low level corruption in Hungary identified several types of brokerage, defined by whether the broker was an insider or outsider to the organization granting the illegitimate service in the corrupt exchange, whether the benefits received by the broker were social or financial, and whether the broker merely introduced the agent and the client or actually managed the transaction. The richness he captured by analyzing the fine-grained quality of ties adds richness to our understanding of how social networks facilitate wrongdoing.

Even more fundamentally, all of the social network theorists and researchers reviewed here implicitly assume that social ties and the networks they compose are objective realities. But there is much anecdotal evidence that people embarking on unethical behavior often work to create impressions about the relationships they maintain, in an attempt to benefit from the enabling effects that social ties can generate. For example, Barry Minkow attracted investors for his non-existent building restoration business by cultivating the impression that he was linked to his investors in a reciprocal strong relationship, when in fact he was linked to them in an asymmetrical one in which they felt emotionally close to him but he felt little affection for them (Domanick 1991). This work suggests that researchers need to pay attention not only to the existence of ties between actors, but also to the perceptions of ties from both actors' and their tie partners' perspectives.

*Embracing a wider range of data and methods.* Social network methodologists have developed an impressive array of sophisticated mathematical techniques to analyze important features of social networks (e.g., density and centralization) and network locations, (e.g., centrality and brokerage). But, the mathematical algorithms currently available to analyze social networks have so far failed to capture the richness of the social ties linking co-conspirators to one another and with their victims (e.g., the extent to which ties are multiplex and symmetrical). This leaves network methodologists with more work to do. Further, researchers have demonstrated considerable creativity in extracting social network information from archival data, using email logs (Aven 2015), court records and SEC documents (Ahern 2015), as well as congressional testimony (Baker and Faulkner 1993). But when it comes to mining archival data sources for network relationships, the surface has only been scratched. Other potential archival data sources, such as social network websites like LinkedIn, await investigation.

With this said, even the most sophisticated and creative quantitative empirical analyses of social networks have limitations. Many of the fine-grained features of social networks considered above, such as the institutional context and temporal unfolding of networks, remain outside the purview of quantitative empirical social network research. Thus, we believe researchers who seek a deep understanding of the role that social networks play in the initiation, evolution, and consequences of organizational misconduct would do well to make greater use of qualitative methods. Indeed, some of the most interesting insights provided by Baker, Faulkner, and associates are derived from supplemental post hoc qualitative analyses of their data (Baker and Faulkner 1993, 2003, 2004; Faulkner and Cheney 2014; Faulkner et al. 2003). In addition, some of the most novel insights about how wrongdoing is initiated and spreads within and across organizations comes from qualitative analyses of wrongdoing, including Maclean's study of churning in the life insurance industry (2001), Mars' ethnographies of employee pilferage (1973, 1974), and Neu and colleagues' analysis of the scandal surrounding the Canadian government's Sponsorship program (2013).

*Drawing on work conducted by criminologists.* A new wave of criminologists is embracing social network theory and methodologies to develop an enhanced understanding of a range of non-organizational crimes. We think this "networked criminology" (Kappen et al. 2010; Papachristos et al. 2012; Papachristos 2009; Papachristos 2011; Papachristos et al. 2013; Papachristos et al. 2012) speaks to several of the topics we considered and issues we raised in our review and might be mined by future researchers on the topic.

Papachristos, Braga, and Hureau's (Papachristos et al. 2012; Papachristos et al. 2013) analysis of gun violence in an urban community examines how a person's social ties can influence his/her exposure to harm from wrongdoing. These authors use co-arrest records to identify a social network of individuals who were known gang members or who had encounters with law enforcement in a neighborhood of Boston in 2008. They show that a person's proximity to prior gun shot victims within this network increased his/her risk of being shot by a handgun; each network association removed from a gunshot victim reduced the odds of gunshot victimization by 25%.

Several studies of non-organizational crime suggest how the limits that secrecy imperatives impose on a conspiracy's size, noted by Brass and associates, can be relaxed. Morselli and Roy (2008) found that the large stolen vehicle exportation rings they examined were managed by small groups of criminals linked via brokers, as small groups allow for the structural flexibility necessary for wrongdoing to persist, while brokers provide avenues to flexibly adapt to changed circumstances. Likewise, Natarajan (2006) found that a large heroin distribution network was constituted by small groups of individuals loosely linked by brokers, because this structure provided the secrecy and flexible coordination benefits of small size, while at the same time allowing for the expansion of the enterprise and its illicit payoffs. Perrow (2007) argues that terrorist groups employ much the same type of structure for similar reasons.

Morselli, Giguère, and Petit's (2007) comparative analysis of the 9/11 terrorist conspiracy and a Montreal drug dealing network explores how misconduct type and temporal dynamics can jointly shape how conspiracies manage the secrecy/efficiency tradeoff. They show that the length of time between initiating and fulfilling plans to act,



which they refer to as “time-to-task,” influences the manner in which conspiracies manage the tradeoff between efficiency and secrecy as they enact their wrongdoing. When conspiracies enjoy long “time-to-task” intervals, as is the case with terrorist networks, they can afford to organize as sparse and decentralized networks. Such networks do not allow for extensive and efficient communication, but they do reduce the chance that individual members will be detected (because the more a group’s members communicate, the more opportunities social control agents have to detect a group’s members in action). In addition, individual members will be less likely to compromise the group’s integrity in sparse and decentralized networks, because, if a member is detected, there are no leaders to “give up.” However, when conspiracies face short “time to task” intervals, as is the case in drug dealing conspiracies, they must organize in dense and centralized networks. Such networks leave the conspiracy at heightened risk of detection and, if detected, increased risk of compromise, but allow for higher levels and more efficient communication necessary to get the group’s work done.

Morselli’s (2010) analysis of a drug distribution enterprise organized by the Hell’s Angel’s motor cycle gang underscores the importance of differentiating between types of centrality when analyzing perpetrators’ risk of being punished. He found that actors with high degree centrality were more likely to be arrested, while individuals with high betweenness centrality were less so. At least in this context, it was how many implicated parties one knew, and not how many co-conspirators one indirectly connected to each other (i.e., the extent to which one served as a broker) that led to an increased risk of punishment.

Finally, Campana and Varese’s (2013) analysis of wiretapped phone conversations between members of two organized crime groups indicates the benefits of a more fine-grained approach to dimensionalizing social ties. They argue that in order for two Mafioso to work together, each must trust that the other will follow through on their promise to engage in behaviors crucial for the conspiracy and not defect from the conspiracy and rat out their co-conspirator. Further, they contend that strong ties most credibly insure these “commitments,” because they subject tie partners to greater constraint with respect to the shirking of obligations and recourse to defection. Consistent with this assertion, they found that ties linking mafia co-conspirators tended to be overlaid with kinship relationships and to entail the exchange of information about violence perpetrated. They argue that by working with kin, tie-partners can both enjoy greater trust in their co-conspirators and count on common third parties (other family members) to monitor and control their co-conspirators. By sharing information about violence perpetrated, tie partners become hostage to each other and thus have a stake in keeping their criminal involvements secret from outsiders.

The overwhelming majority of wrongdoing in and by organizations does not involve physical violence. But much wrongdoing in and by organizations entails the perpetration of acts that, if exposed, place the perpetrators at risk of sanction. Thus, one would expect that ties that entail the sharing of such information would increase the effectiveness of the conspiracies. It is noteworthy that Campana and Varese’s arguments and results, which make use of fine grained distinctions between types of ties, contradict Brass and associate’s contention that conspirators will tend to enact weak

ties with their co-conspirators in order to reduce the likelihood that their joint activities will leak information that will be detected by social control agents.

*Exploring the organizational level of analysis.* We have restricted our attention to social network research on misconduct that focuses on individuals, either acting alone or in conjunction with others as members of conspiracies. We have not focused on social network research that focuses on organizations, which in many cases can be considered actors with their own interests and capacities. There is some social network research on misconduct that adopts the organizational level of analysis, but it remains in embryonic form. The few studies that take this approach primarily focus on the diffusion of misconduct between organizations and translate Brass and associates' argument about how misconduct spreads among individuals to the organizational level of analysis.

For example, Westphal and Zajac (2001) examined the diffusion of the announcement but incomplete fulfillment of stock buy-back programs, which can be considered an act of deception. Consistent with the cohesion version of Brass and associates' arguments about the diffusion of misconduct, they find that firms are more likely to engage in this practice when they are linked via interlocking directorates to other firms that have previously done so, suggesting that this unethical behavior diffused through corporate directors' social networks. Similarly, Mohliver (2012) examined the diffusion of stock option backdating, a process that was originally considered deceptive and later was labeled illegal. Consistent with the structural equivalence version of Brass and associates' arguments about the diffusion of misconduct, he found that firms more frequently backdated stock options when other clients of their local accounting office, a crucial intermediary, backdated as well. Braithwaite's (2005) qualitative analysis of the proliferation of legally questionable tax shelters in the U.S. and Australia helps explain why intermediaries may become diffusers of misconduct. He found that clients' demand for legally questionable tax shelters compel accounting firms to develop this expertise, in the process creating a market for questionable tax consultancy.

There is one social network analysis of misconduct at the organizational level of analysis that focuses on the consequences of misconduct. It examines the impact that misconduct has on an organization's inter-organizational relationships. Sullivan and associates (2007) explored the effect that a corporation's unethical and illegal acts had on its position in the network of interlocking directorates. They found that firms discovered to have engaged in misconduct experienced a decline in the average reputation of the firms to which they were interlocked. They also found that interlock partners who disassociated from the wrongdoer were on average more respected than the interlock partners who remained. This suggests that firms lose high quality interlock partners in the wake of misconduct, presumably because the revelation of their misconduct undercuts their legitimacy. Sullivan and associates also found that corporations that engaged in misconduct experienced a decline in local network closure (although not in the average network prominence of their interlock partners). This suggests that firms that engaged in misconduct replaced lost interlock partners with new interlock partners who were socially distant from current partners, presumably because their local network was disenchanted with them. In addition, firms that engaged in misconduct experienced a decline in the average size and profitability of the firms to which they were interlocked, but that the departing interlock partners were no larger and more profitable than those who remained. They suggest that being an

interlock partner with a firm exposed for engaging in wrongdoing can damage a firm economically. If they are correct, it suggests that stigma by association can have concrete economic consequences for organizations.

## **Conclusion**

Brass and associates' seminal theoretical analysis of social networks and unethical behavior offered an important theoretical advancement in our understanding of the role that social networks play in misconduct within organizations. A growing number of empirical analyses, most importantly those conducted by Baker, Faulkner, and associates, validate, extend, and in some cases call into question Brass and associates' path-breaking ideas.

Our review of work in this area indicates that the role that social networks play in the initiation, evolution, and consequences of organizational wrongdoing depends on four contextual factors: potential wrongdoers' predispositions, the institutional context, temporal dynamics, and the particular type of wrongdoing considered. Clearly, much work remains to be done. We have considered the four factors moderating the impact of social networks on misconduct on a case-by-case basis. Researchers might benefit from a more systematic understanding of how these factors affect the relationships between social networks and the initiation, evolution, and consequences of wrongdoing. We think that theoretical advances along these lines are most likely to emerge from interdisciplinary thinking, applying insights from research on terrorist networks (Raab and Milward 2003), drug distribution networks (Morselli 2010; Natarajan 2006), urban street gangs (Papachristos 2009; Papachristos et al. 2013; Papachristos et al. 2012), organized criminal syndicates (Campana and Varese 2013; Varese 2013), and political conspiracies (Faulkner and Cheney 2014; Neu et al. 2013) to traditional business contexts.

Wrongdoing is seldom undertaken in isolation. Even apparently independent perpetrators are located within networks of other relationships, and are socially tied to victims, colleagues with whom they might be colluding, and colleagues from whom they need to hide their activity. The social structures within which we are embedded play an important and to date underexplored role in the likelihood that individuals, groups, or organizations will engage in wrongdoing, how that wrongdoing will spread, and what the consequences of such wrongdoing will be. We hope this chapter provides a worthwhile overview of the existing research on the topic, and can help inspire future work in this compelling vein.

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