Not All Types of Social Networks Are Good
The Dual Effects of Social Networks on Courtesy Stigma

Tian, Longwei; Li, Peter Ping; Xie, En; Li, Yuan

Not All Types of Social Networks Are Good: The Dual Effects of Social Networks on Courtesy Stigma

ABSTRACT

When a firm is accused of serious misconduct, its executives, even those who are nonculpable, are stigmatized by the firm's stakeholders, a phenomenon known as *courtesy stigma*. One research stream explores how executives' social networks mitigate courtesy stigma, with an emphasis on the positive effect of social networks. From the perspective of a social network as an information pipe, we suggest that social networks are a double-edged sword in the context of courtesy stigma because of their distinctive *insulation* and *exposure* mechanisms. Our proposed hypotheses are supported via event history analysis (EHA) using data collected from a Chinese sample of listed firms that demonstrated financial misconduct in the period 2007-2016. Our study contributes to the literature on social networks and courtesy stigma by revealing their complex links.

Keywords: Courtesy stigma, closed-loop tie, open-loop tie, financial misconduct

I am shocked by the events of the past few days. I am stunned that misconduct on such a scale was possible in the Volkswagen Group. As CEO, I accept responsibility for the irregularities. I am doing this in the interest of the company, even though I was not aware of any wrongdoing on my part.

Former Volkswagen AG CEO Martin Winterkorn's resignation statement after emissions misconduct in March 2015

In recent years, many firms around the world have been involved in various cases of misconduct. For example, the American International Group in the US committed financial fraud in 2004; Sanlu in China was found to have allowed melamine in infant formula in 2008; Volkswagen in Germany admitted that it manipulated its emissions data in 2015; and JBS in Brazil was reported to have used rotten meat for food in 2017. Top executives at these firms were deeply stigmatized, even though some, such as Martin Winterkorn at Volkswagen, denied any wrongdoing. Being stigmatized by any face-value association with misconduct is referred to as *courtesy stigma* (Goffman, 1963; Semadeni, Cannella, Fraser, & Lee, 2008). Courtesy stigma jeopardizes the career development of these executives, especially when they try to get hired at a new firm, because potential employers might show negative emotions toward executives related to a firm accused of misconduct or fear having that stigma transferred to them (Cowen & Marcel, 2011; Wiesenfeld, Wurthmann, & Hambrick, 2008).

Courtesy stigma can have critical consequences for organizations and individuals, such as discrimination, prejudice, and illegitimacy, so scholars in sociology and management have focused on the issue of stigma mitigation (Hudson & Okhuysen, 2009; Kulik, Bainbridge, & Cregan, 2008; Pescosolido & Martin, 2015; Wiesenfeld, Wurthmann, & Hambrick, 2008). A management research stream has started to investigate the mitigation mechanism for courtesy stigma from the perspective of social networks (Kulik, Bainbridge, & Cregan, 2008; Schepker & Barker, 2018; Wiesenfeld, Wurthmann, & Hambrick, 2008). This research stream has emphasized the bright side of social networks in mitigating courtesy stigma for executives. It has been argued that executives at firms accused of misconduct have close ties to members of the press, regulatory officials, and corporate leaders at other firms, therefore, they can gain trust from, and exchange favors with, others to mitigate the courtesy stigma effect because those with whom they share these social ties are reluctant to view the executives at firms charged with misconduct as inept, careless, or self-serving, thus helping to mitigate the effect of courtesy stigma.

Even though this research stream frames the mitigation mechanism for courtesy stigma from an interactive and relational perspective, knowledge about the role of a social network in courtesy stigma mitigation is still limited. In particular, a social network can serve as a particular *information pipe* between individuals as network nodes to shape the information that can be accessed (Burt, 1992; Paruchuri, 2010; Podolny, 2001; Zaheer, Gözübüyük, & Milanov, 2010). This function is relevant to courtesy stigma because it is characterized by information exchange concerning the ongoing elements of misconduct, including rumors and gossip (Kulik, Bainbridge, & Cregan, 2008; Sutton & Callahan, 1987). Zhang, Wang, Toubiana, and Greenwood (2021) have suggested that one key way for individuals to manage stigma is information

management tactics and called for more efforts to study this issue. Although social networks and courtesy stigma are interrelated and interdependent in terms of information access, the question of how the social networks of executives at firms accused of misconduct shape information pipes to remedy or neutralize courtesy stigma is largely underexplored. Hence, we know little about whether such social networks with different structures consistently mitigate courtesy stigma from the information pipe perspective or about whether these functions have a dark side.

Information regarding any ongoing misconduct, such as how it occurred and who should take responsibility, affects external audiences' judgment about the executives. Executives may withhold critical information about the misconduct from external audiences (Elsbach & Sutton, 1992; Sutton & Callahan, 1987). The ability of an external audience to access information from different sources or different executives might shape its interpretation of an incidence of misconduct when they judge the executives. From this perspective, we divide the social network of the executive with an external audience into two different types of social ties: open-loop ties and closed-loop ties. An *open-loop tie* is an executive's social tie with an external node if the node has no network path to connect with other executives at the same firm. The open-loop tie of an executive provides a single source of information about the incidence of misconduct, thus giving the executive an informational advantage based on the ability to spin the information about the misconduct. In contrast, a *closed-loop tie* is a social tie of an executive with an external node if the node has at least one network path to connect with other executives at the same firm, so the external node can have multiple sources of information from multiple executives. This external node tends to have access to diverse information, reducing the executive's informational advantage about the misconduct. Hence, the external nodes for the two types of social ties differ in their information access function; they lead to differences in the external perception and judgment about any executives at firms facing charges of misconduct.

Our goal is to explore whether and how open-loop and closed-loop ties shape access to information so as to either insulate or expose the negative effect of courtesy stigma on these executives to be hired by a new firm. In terms of social networks, we focus on interlock networks, which connect top corporate leaders at different firms, including top executives and board directors (Markóczy, Sun, Peng, & Ren, 2013). Interlock ties are relevant to courtesy stigma mitigation because they consist of high-ranking corporate leaders at other firms, representing potential employers, who are responsible for dismissing or hiring executives from firms accused of misconduct (Cowen & Marcel, 2011). Further, interlock networks are critical channels for information flow regarding the misconduct because they are part of the same network and might focus on these events (Paxton & Moody, 2003). To gauge the effect of courtesy stigma on executives' future careers, we focus on the individual-level likelihood that the executives will be hired or appointed at a new firm after a firm-level incidence of misconduct. In other words, after a firm is charged with misconduct, the applications of its executives to join new firms may be rejected because the employers may show negative emotion toward them or fear a stigma transfer (Cowen & Marcel, 2011; Wiesenfeld, Wurthmann, & Hambrick, 2008).

We contribute to the current literature in two major areas. First, we contribute to the literature on stigma mitigation by raising doubt about the prevailing perspective that social networks tend to mitigate courtesy stigma by reducing the negative link between firm-level misconduct and individual-level career development

(Kulik, Bainbridge, & Cregan, 2008; Wiesenfeld, Wurthmann, & Hambrick, 2008). The extant research stream has focused on the bright side of social networks, underestimating their dark side in the context of courtesy stigma mitigation. By adopting the information pipe perspective, we complement the extant research by theoretically and empirically revealing the complex, often conflicting effects of social networks, given their different types with different functions, on courtesy stigma mitigation.

Second, we contribute to the theory on structural holes. The theory on structural holes argues that an individual as a broker bridging two disconnected others has an informational advantage over the other two (Burt, 1992; Zaheer & Bell, 2005). In our research setting, we propose that structural holes may not the only way to provide individuals with an informational advantage. Hence, we enrich the research stream on structural holes by identifying a new source of informational advantage in the context of courtesy stigma mitigation.

THEORY AND HYPOTHESES

Executives' Career after Firm-level Misconduct: A Courtesy Stigma Process

Stigma, broadly defined, is anything that detrimentally segregates individuals (Devers, Dewett, Mishina, & Belsito, 2009; Goffma, 1963; Kurzban & Leary, 2001; Link & Phelan, 2001). Courtesy stigma is known as stigma-by-association or event stigma. Courtesy stigma is not triggered by the distinctive behaviors or qualities of individuals but by an association from an external audience between individuals and negative events, such as misconduct, bankruptcy, performance decline, and lawsuits (Hamori, 2007; McKinley, Ponemon, & Schick, 1996; Semadeni, Cannella, Fraser, & Lee, 2008). Hence, if a firm commits a certain type of misconduct, its executives might suffer from the negative effect of courtesy stigma, such as negative reactions (e.g., rejection) by potential employers.

Although executives at firms facing charges of misconduct might anticipate rejection and exclusion, these effects are actualized only when these executives experience specific rejection and exclusion in social interactions, especially when applying for new jobs (Pescosolido & Martin, 2015). In this situation, the severity of firm-level misconduct jeopardizes the opportunities of a firm's executives to be hired at a new firm because the new firm's corporate leaders, who represent the employer at the hiring firm, make the decision to hire or reject these executives largely based on their current firm's misconduct (Wiesenfeld, Wurthmann, & Hambrick, 2008). Further, moral and ethical standards may have been deeply entrenched in the minds of hiring employers. When they perceive that the executives might have transgressed or violated those standards by being associated with severe misconduct, they might treat the executives in a punitive and even vindictive manner, such as rejecting their job applications (Cowen & Marcel, 2011; Telock, 2002). Finally, corporate leaders at the hiring firm might have negative emotions toward executives at firms accused of severe misconduct, including outrage, anger, hatred, and a sense of inappropriateness (Cooper, Doucet, & Pratt, 2007). These emotions have a negative impact on the judgment of the hiring corporate leaders about the reputation, capability, and ethics of executives associated with firms facing charges of misconduct, thus harming the odds of an offer of employment to those executives.

Several empirical studies offer some support for these arguments (Arthaud-Day, Certo, Dalton, & Dalton, 2006; Fee & Hadlock, 2004; Gilson, 1990; Hamori, 2007; Kaplan & Reishus, 1990). Hamori (2007) found that because of courtesy stigma, negative events at a firm impair employees' future careers when they move to other employers. Hence, we propose our baseline hypothesis as follows.

Hypothesis 1: The severity of a firm's misconduct is negatively related to the likelihood of its top executives being hired at a new firm.

Mitigating Courtesy Stigma by Providing Information

Goffman (1963) originally noted that stigmatization can be enacted or mitigated only through social interaction with an external audience. After a firm commits misconduct, its top executives will try to mitigate or avoid courtesy stigma by providing positive information about themselves to external audiences, especially to corporate leaders at other firms who might be potential new employers (Elsbach & Sutton, 1992; Sutton & Callahan, 1987). For example, after misconduct by their firm, the executives can explain to a potential new employer that, even though that firm committed misconduct, it was facing unusual conditions, so the misconduct was accidental, rather than an inherent problem. They might also explain that external audiences have a general misunderstanding of the nature or cause of the misconduct. Moreover, an executive can offer information to an external audience by acknowledging the occurrence of the misconduct while denying direct responsibility for it. For example, after the emissions misconduct by Volkswagen, the CEO, Martin Winterkorn, claimed in his resignation statement that he was "not aware of any wrongdoing on my part." Executives might not only deny responsibility for the misconduct but also find scapegoats or point a finger at their colleagues. Again, Winterkorn attributed the wrongdoing to "the terrible mistakes of a few people," but not to himself.

Information exchange and social interaction between the executives at firms facing charges of misconduct and the corporate leaders of other firms that might be their new employers is essential for courtesy stigma mitigation (Goffman, 1963; Pescosolido & Martin, 2015). Zhang, Wang, Toubiana, and Greenwood (2021) have suggested that one key way for individuals to manage stigma is information management tactics, referring as actors who manage the information they share or disclose about their stigmatized attribute. However, we know little about how social networks function as information pipes shape which nodes of information are available for external audiences to access, thus affecting their specific judgments about the executives (Podolny, 2001). For example, current studies focus exclusively on social networks' positive side in terms of mitigating courtesy stigma (Kulik, Bainbridge, & Cregan, 2008; Wiesenfeld, Wurthmann, & Hambrick, 2008), often at the expense of the negative side. In this sense, we need to determine whether social networks with different structures consistently mitigate courtesy stigma and whether there is any negative side, taking the information pipe perspective.

Social Networks and Courtesy Stigma Mitigation: An Information Pipe Perspective

The information pipe perspective suggests that social networks are channels or conduits through which

information flows, including information about exchange opportunities, goods, services, and resources (Podolny, 2001). Researchers have employed the information pipe perspective to study various management and strategy issues, ranging from firm opportunity recognition (Ma, Huang, & Shenkar, 2011) and innovation (Owen-Smith & Powell, 2004; Paruchuri, 2010) to executives' career development (Seibert, Kraimer, & Liden, 2001). Seibert, Kraimer, and Liden (2001) argued that executive' social ties with top executives at other firms can be evoked to provide information, thus boosting their career prospects.

Information exchange within the interlock networks between executives at firms accused of misconduct and corporate leaders at other firms is relevant to courtesy stigma. When a firm commits misconduct, its executives may spread favorable information about themselves through interlock networks to protect their career opportunities (Sutton & Callahan, 1987). Interlock networks consist of corporate leaders from diverse firms, who might be the executives' potential new employers. The information affects the judgment of potential new employers about the executives in terms of questions such as the following: *Should this executive take responsibility for the misconduct? Did this executive violate the rules on purpose?* Answers to these questions trigger courtesy stigma concerning the executives at firms charged with misconduct. In addition, corporate leaders at other firms can decide whether they will engage in future economic exchange with the executives, such as rejecting job applications from them (Wiesenfeld, Wurthmann, & Hambrick, 2008). Hence, how corporate leaders at other firms, as potential new employers, interpret the information from executives at firms accused of misconduct affects the perception and judgment of courtesy stigma.

Two Types of Information Pipes

Given the critical effect of information disclosed about executives' roles in a case of ongoing misconduct, they have the discretion to disclose different information about the misconduct to potential new employers; some conceal the information, some deny responsibility, some point fingers at others, and some accept responsibility (Sutton & Callahan, 1987). Whether these potential new employers can access information from multiple executives at firms charged with misconduct affects how they perceive and judge the misconduct, thus affecting their judgment of the executives applying for jobs. From this perspective, we divide executives' interlock ties into two types: (1) open-loop ties and (2) closed-loop ties.

An open-loop tie is an executive's social tie with an external node if the node has no network path to connect with other executives at the same firm accused of misconduct. The open-loop tie of executives provides a single source of information about the misconduct, thus often giving the executives an informational advantage because these executives can put a positive spin on the information about the misconduct. In contrast, a closed-loop tie is the social tie of an executive with an external node if the node has at least one network path to connect with other executives at the same firm accused of misconduct, so the external node can have multiple sources of information from multiple executives. This node can access diverse information, reducing the executive's informational advantage about the misconduct. Hence, the external nodes for the two types of social ties differ in their information access functions, so they shape the differences in external perception and judgment about any concerned executives at firms charged with misconduct.

As Figure 1 shows, A, B, C, and D represent executives at a firm accused of misconduct, and all are connected to one another; the others represent corporate leaders at other firms or their potential new employers. We use A as an example to show an open-loop tie and a closed-loop tie. The focal executive A has three external direct ties with corporate leaders at other firms, A-F, A-H, and A-K. A-F and A-H are the only ties that connect F and H with A's firm, so F and H have only one information source. These two ties are A's open-loop ties. Further, corporate leaders at other firms connected with A's open-loop ties, such as G, I, and J, have only one source of information about the misconduct. In contrast, K has more than one tie with A's firm, so K has more than one information source, thus being A's closed-loop tie. Corporate leaders at other firms connected with A's closed-loop tie, such as L, K, M, and N, have multiple (two in this example) information sources about the misconduct. In summary, in this case, A has two open-loop ties, but only one closed-loop tie.

---------------------------Insert Figure 1 about here------------------------

A's potential new employers connected with A's open-loop ties (i.e., F, G, H, I, and L) have only one information source and thus only one side of the story from A, so A has an informational advantage over F, G, H, I, and L about the misconduct. A's potential new employers with open-loop ties can only judge A's role in the misconduct based upon A's version of events. In contrast, A's potential new employers with closed-loop ties (i.e., K, L, M, and N) can have two versions of events: one from A and the other from D, who also knows about the misconduct. Because D may offer information to M about the misconduct, A's potential new employers with closed-loop ties have a relatively equal informational advantage about the misconduct. Hence, potential new employers with A's closed-loop ties can judge A's role in the misconduct based upon multiple versions of events. In summary, open-loop ties generate an informational advantage for executives about the misconduct, but closed-loop ties do not have such advantages.

Open-loop Ties and Courtesy Stigma Mitigation: Insulation Mechanism

The primary negative effect of courtesy stigma is that executives at firms accused of misconduct can be perceived and judged as responsible for it by corporate leaders at other firms. Those corporate leaders at other firms are the executives' potential new employers, so the careers of the executives at firms charged with misconduct can be negatively affected (Goffman, 1963; Semadeni, Cannella, Fraser, & Lee, 2008; Wiesenfeld, Wurthmann, & Hambrick, 2008). Executive A's open-loop ties can mitigate the effect of courtesy stigma because A can insulate himself from the misconduct by only disclosing favorable information about himself to his potential new employers. First, because A's potential new employers (i.e., F, G, H, I, and J) linked with open-loop ties can obtain information about the misconduct only from A, the positive information from A about himself might insulate or shelter A from courtesy stigma because A has the informational advantage of open-loop ties (Sutton & Callahan, 1987).

Second, A might deny any responsibility for the misconduct by pointing a finger at executives B, C, and D at the same firm (Sutton & Callahan, 1987). For example, in responding to the emissions misconduct at Volkswagen, Winterkorn denied any wrongdoing on his part but attributed wrongdoing to "the terrible

mistakes of a few people" other than himself. A's explanation about the misconduct may weaken the potential new employers' negative emotional reaction to the misconduct, such as outrage, anger, hatred, and assessments of inappropriateness, from those connected with A in open-loop ties (Cooper, Doucet, & Pratt, 2007). Again, for lack of any further information, A's potential new employers with open-loop ties (i.e., F, G, H, J, and I) have no other information sources to confirm whether A is lying, so A can effectively protect himself from their negative judgment. In summary, because open-loop ties can provide focal executives with an informational advantage over potential employers about misconduct, the more open-loop ties they have to disclose only positive information about themselves and only negative information about other executives at the same firm, the more likely they are to insulate themselves from courtesy stigma.

Hypothesis 2: In the event of firm-level misconduct, the firm executives' open-loop ties can mitigate the negative effect of courtesy stigma on their careers. In other words, executives' open-loop ties will attenuate the negative link between the severity of firm misconduct and the likelihood of being hired by a new firm.

Closed-loop Ties and Courtesy Stigma: Exposure Mechanism

A's closed-loop ties amplify the courtesy stigma effect for executives at firms accused of misconduct because A's potential new employers with closed-loop ties can more easily expose A to courtesy stigma. Because A's potential new employers with closed-loop ties have multiple information sources, his informational advantages over K, L, M, and N are neutralized. Figure 1 shows that A's potential new employers with closed-loop ties (i.e., K, L, M, and N) can access information pertaining to the misconduct from both A and D, so they may have more complete and accurate information about the misconduct, such as how the misconduct happened and who should take most of the responsibility for it, thus more likely exposing A to courtesy stigma.

First, A might argue to his potential employers (K, L, M, and N) that the misconduct was a one-time inadvertent event, not an inherent problem, whereas D might admit to A's potential employers (K, L, M, and N) that the firm committed the misconduct on purpose and that it would be difficult to address the problem (Sutton & Callahan, 1987). A's potential employers might obtain inconsistent information about the misconduct from A and D. This information inconsistency might lead A's potential employers with closed-loop ties to conclude that A is lying about the misconduct or withholding negative information. This conclusion will impair trust and trigger negative emotions from potential employers with closed-loop ties that amplify the negative effect of courtesy stigma for A.

Second, to protect his reputation and career from being affected by the misconduct, A might also accuse D of being responsible for it or spread rumors about D to A's potential employers (K, L, M, and N). D might do the same, accusing A or spreading rumors about A to A's potential employers (K, L, M, and N). As a result, A's potential employers with closed-loop ties might obtain both positive and negative information about A. The asymmetry between positive and negative information suggests that negative information tends to have a larger impact on the perception and judgment of an external audience than does positive information simply

because bad information has a greater effect than good information (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Gable & Haidt, 2005; Peeters & Czapinski, 1990; Taylor, 1991). Baumeister and colleagues (2001) found that information about negative things is often processed more thoroughly than information about positive things. Skowronski and Carlston (1992) found that the effect of morally positive behavior on the impression one conveys is easily overridden by new information about immoral behavior. Yzerbyt and Leyens (1991) found that negative information leads to quick exclusionary judgment. Some researchers have studied the conditions of the positive-negative information asymmetry effect, including culture, gender, and nationality (Singapore and China), and their findings still mainly support this effect (Crisp & Hewstone, 2001). Hence, based upon the asymmetry effect, we argue that negative information about A from D will have a stronger effect on the judgment of A's potential employers with closed-loop ties than will positive information from A. In summary, the more closed-loop ties an executive has, the more likely A's potential employers are to associate the executive with the misconduct because of informational inconsistency, so the stronger the courtesy stigma effect will be.

Hypothesis 3: In the event of firm-level misconduct, the firm executives' closed-loop ties can strengthen the negative effect of courtesy stigma on their careers. In other words, executives' closed-loop ties amplify the negative link between the severity of misconduct and the likelihood of being hired at a new firm.

METHOD

To test our theory, we used Chinese listed firms that were subject to China Securities Regulatory Commission (CSRC) enforcement actions from 2008 to 2016. The CSRC, which is similar to the Securities and Exchange Commission (SEC) in the United States, was established in 1998 to monitor and regulate the capital markets, including the Shanghai Stock Exchange and the Shenzhen Stock Exchange. The CSRC is responsible for developing regulations, regulating and overseeing financial activities, and levying sanctions to protect investor interests. Thus, the CSRC plays an oversight role in improving corporate governance by ensuring that accurate corporate information is conveyed to the market on a timely basis. The CSRC also actively promotes governance principles by monitoring listed firms.

CSRC punishment of financial misconduct by a listed firm generates stigmatization and serious negative consequences for firms and top executives as well. First, prior research has found that when firms have restatement events stemming from financial misconduct, such as accounting fraud, the reputation and image of the firms' top executives are damaged and their careers are jeopardized (Cowen & Marcel, 2011; Arthaud-Day, Certo, Dalton, & Dalton, 2006). Second, punishment by the CSRC affects the price of stock for the misbehaving firm and sometimes even leads to dismissal of the CEO and CFO, enabling the CSRC to establish its credibility and show it is not a "toothless tiger" (Yiu, Xu, & Wan, 2014). For instance, in 2001, the CSRC punished Yin Guang Xia for engaging in fraud, including inflating its profit and overstating its assets. Its CFO and CEO were dismissed, and their reputation and image were damaged and stigmatized.

We collected data on Chinese firms that committed financial misconduct from the China Stock Market and Accounting Research (CSMAR) and financial performance data from WIND, which are widely used

databases on publicly listed firms in China (Jiang, Cannella, Xia, & Semadeni, 2017; Yiu, Xu, & Wan, 2014). Table 1 provides detailed information about firm financial misconduct in our dataset. In some cases of firm financial misconduct, executives were singled out by the CSRC for punishment. The negative effect on those executives' careers might be not due to courtesy stigma but, rather, personal penalties by the CSRC. Therefore, we excluded those executives. After eliminating missing values, we obtained a total dataset of 891 firms that committed financial misconduct (about 9% of all listed firms in China) and 5,090 executive-year observations. Those executives include CEOs, general managers, vice presidents, general secretaries, department managers (CFOs, COOs, and so on), and assistant department managers of these firms. The executives are responsible for firm decisions and are more likely to suffer courtesy stigma.

---------------------Insert Table 1 about here------------

Measures

Executives hired at a new firm. To capture the hiring of executives by a new firm after their firms were penalized by the CSRC for engaging in financial misconduct, we followed an approach inspired by prior research (Cowen & Marcel, 2011; Jiang, Cannella, Xia, & Semadeni, 2017). If a firm is penalized by the CSRC in year t, we tracked whether its executives were hired at a new firm at the end of years $t+1$, $t+2$, or $t+3$. If the executive is hired at a new firm, we assign a value of 1. To ensure that we have a three-year observation window for executive hiring at new firms, we ended the data on firm financial misconduct in 2014 and executive hiring at new firms in 2017. For example, firm A was punished by the CSRC in 2009, and one of its executives worked at the misbehaving firm in 2009. Afterward, the executive worked at firm A in 2010 and in 2011 and at firm B in 2012. The executive hiring at the new firm equals 1 and the duration is 3. All time-variant predictor variables below are lagged by one year (Xiao & Tsui, 2007). Figure 2 shows the distribution of executives being hired by a new firm after their firms committing financial misconducts.

----------------------------Insert Figure 2 about here------------------------

Severity of financial misconduct. Wiesenfeld, Wurthmann, and Hambrick (2008) suggested that measurement of the magnitude of stigmatization should take authority settlements into account. To gauge the severity of financial misconduct, we used CSRC fines (Bao, Tian, & Li, 2018). Firms that commit financial misconduct, in some sense, are criminals that violated laws for the purpose of illegal economic benefit. The different levels of CSRC fines represent different levels of severity in financial misconduct. To correct the highly skewed nature of the CSRC fines on firms that had committed financial misconduct, we measured this variable using the logged value (Beckman, Haunschild, & Phillips, 2004).

Network construction. To calculate the number of executives' closed-loop ties and open-loop ties after firms were penalized by the CSRC for being involved in financial misconduct, we first constructed a global interlock network among all corporate leaders of Chinese listed firms for each year, including executives and board directors. If two top corporate leaders worked at the same firm, they had a connection or an interlock tie (Markóczy, Sun, Peng, Shi, & Ren, 2013; Shipilov, Greve, & Rowley, 2010; Tian et al., 2021).

Based on the global network and open and closed-loop tie definitions, we calculated the number of

executives' closed-loop ties and open-loop ties. Specifically, we employed a three-year window to calculate the executives' social networks because when an incidence of misconduct occurred, the information transfer between the executives and corporate leaders at other firms should be based on social ties that were established years ago.

Figure 3 shows the open-loop ties and closed-loop ties of an executive coded as P42456 in a firm that committed financial misconduct. Each circle represents an executive. Red circles represent executives at the same firm as P42456. Green circles represent corporate leaders at other firms who have connections with executive P42456 but have a limited number of ties and thus cannot connect with the colleagues of P42456, meaning they are P42456's open-loop ties. Blue circles represent corporate leaders who have connections with the colleagues of P42456, meaning they are P42456's closed-loop ties. The red line represents the path of one of P42456's closed-loop ties.

-----------------------------*Insert Figure 3 about here*-----------------------

Control Variables

Several control variables were included to account for factors other than the severity of firm financial misconduct and social networks that may influence the hiring of executives by new firms. First, the gender bias perspective suggests that gender bias arises from, and gives rise to, the distribution of men and women into social roles and that males and females are treated differently based on audience perception (Brands & Kilduff, 2013; Cumming, Leung, & Rui, 2015; Eagly & Steffen 1984; Perrewe & Nelson, 2004; Zhang & Qu, 2016). The new firm may treat job applications from male and female executives differently. Therefore, we controlled for *executives' gender* (male = 0, female = 1). Second, to measure the market value of the executives, we used the *executives' salary* from the firm accused of misconduct, using the logged value. Third, executives' capability, knowledge, skill, and human capital affect the likelihood of being appointed at a new firm, and learning experience can help executives to acquire these resources (Cowen & Marcel, 2011). Therefore, we controlled for three factors that can affect their career development: *executives' age*, *overseas experience* (if executives worked in foreign countries, overseas experience = 1; otherwise, overseas experience = 0), and *academic experience* (if executives worked at academic institutions, such as universities and research centers, academic experience = 1; otherwise, academic experience = 0) (Maurer, 2001; Peltonen, 1998; Sallop & Kirby, 2007). Also, to control for executives' social capital, social status, and informational advantage, we controlled for executives' interlock network *degree centrality*, *eigenvector centrality*, and *structural hole* (Jiang et al., 2017; Markóczy, Li Sun, Peng, Shi, & Ren, 2013; Xiao & Tsui, 2007). Fourth, the firm charged with misconduct might attract attention from a new firm, and attention paid to firms accused of misconduct might affect the courtesy stigma process (McDonnell & King, 2013; Ozmel, Reuer, & Gulati, 2013). Therefore, we controlled for characteristics of the firm accused of misconduct that represent attention, including *firm size*, *top management size*, *board size*, *institutional share rate*, *state share rate*, *board share rate*, *firm performance, media attention,* and *analyst attention* (Seibert, Crant, & Kraimer, 1999; Semadeni, Cannella, Fraser, & Lee, 2008). Firm size is measured by the logged value of total assets (Beckman, Haunschild, & Phillips, 2004; Kelly & Ambugery, 1991; Thornhill & Amit, 2003). Firm performance is measured by the return on assets

(ROA) (Harris & Bromiley, 2007; Marquis & Bird, 2018). Media attention is measured by the logged number of news reports by newspapers, and analyst attention is measured by the logged number of analyst reports by the financial brokerage house that targets the firm (Chen, Cumming, Hou, & Lee, 2016). Finally, we also control for the external environment of the firm accused of financial misconduct. Industry membership can systematically affect executives' appointment at a new firm. To address problems from unobserved heterogeneity, we generated industry dummy variables for each firm facing charges of misconduct and added them to our models. Similarly, we also generated and added a series of year dummies.

Analytical Method

One way to model whether executives will be hired at a new firm after their firms are punished by the CSRC for committing financial misconduct is ordinary least squares (OLS) or logistic regression. OLS and logistic regression cannot deal with right-censored cases (Staw & Hoang, 1995). Because the observation window is three years, no hire at a new firm may be observed during the observation window (or right-censored). Event history analysis (EHA) can address this problem by modeling the likelihood that an event is observed at time t, because no event happened before time t (Staw & Hoang, 1995; Yu & Cannella, 2007).

Given the advantages of EHA, we used continuous-time EHA to model the likelihood of executives' hire at a new firm after their firms were punished for committing financial misconduct. The Cox proportional hazard regression model can be shown in the following equation (Cox, 1972; Katila & Shane, 2005; Ozmel & Guler, 2015):

$$ln[h_i(t)] = ln[h_0(t)] + \sum \beta_k \times [X_{ik}(t)],$$

where $h_0(t)$ is the baseline hazard function, and $X_{ik}(t)$ is the value of the kth covariate (independent variable) for executive i at time t, when the firm is penalized by the CSRC for engaging in financial misconduct. Figure 4 shows that hazard function for executives in firms with low and high misconduct severity.

----------------------Insert Figure 4 about here-----------------

Addressing Reverse Causality and Autocorrelation

Endogeneity is a major concern in empirical research, especially reverse causality (Castellucci & Ertug, 2010; Chizema, Liu, Lu, & Gao, 2015; Luo, Wang, Raithel, & Zheng, 2015; Xiao & Tsui, 2007). Reverse causality bias occurs when the variance in X gives rise to the variance in Y; we can also raise arguments in which the direction is from Y to X (Paruchuri, 2010; Xiao & Tsui, 2007). Reverse causality may not be a concern in our research. The executives' hiring at a new firm is lagged three years from time the financial misconduct is committed, and the network is constructed is three years before the financial misconduct occurs. This approach can mitigate the risk of reverse causality bias (Xiao & Tsui, 2007).

We considered two types of model dependence in which observations are not independent: time and firm (Liang & Zeger, 1986; Marquis & Qian, 2013). First, because we used data from 2005 to 2017, executives in

the same year may have similar external environments, such as government policies, industry dynamics, and even global competition. Hence, executives in the same year may be dependent. Second, firm dependence emerges because executives are at the same firms, and one closed-loop tie may connect at least two executives. To control for these two types of autocorrelation, we ran EHA models with clustering of robust standard errors at the firm and year level and then compared their effects. The results show that the two approaches produce similar results. Thus, we have appropriately addressed autocorrelation in the model.

RESULTS

Table 2 lists the means, standard deviations, and pairwise correlations for all the variables. The number of executives' open-loop ties and closed-loop ties are correlated at a low level ($r = 0.030$), meaning that the two concepts measure different dimensions of social networks. The highest correlation is between the number of executives' closed-loop ties and degree centrality ($r = 0.618$). We tested the VIFs for all models; the mean VIF is 1.39, and the maximum VIF is 3.52, which are below the proposed threshold value of 10 (Marquis & Qian, 2013). This test shows that multicollinearity is not a concern in our study.

----------------------Insert Table 2 about here------------

Table 3 presents the results of the Cox regressions. Hazard ratios are interpreted as the proportional change in the hazard rate with a one-unit increase in the independent variable. Values of 1 indicate no change, values smaller than 1 indicates that increases in the independent variable will decrease the likelihood of executives being hired at a new firm, and those larger than 1 suggest that increases in the independent variable will increase the likelihood of executive's hire at a new firm (Staw & Hoang, 1995; Yu & Cannella, 2007). For instance, a hazard ratio scoring 1.5 suggests that a one-unit increase in the independent variable will increase the hazard 0.5 times. We report coefficients, hazard ratios, and *p* values in all models. Model 1 is the base model, including control variables only. Models 2, 3, 4, and 5 add the key independent variables and interaction variables.

The results of Model 1 shows that the direct effect between closed-loop ties and the chance that top executives will be hired at a new firm is positive (coef. = 0.047, hazard ratio = 1.049, *p* = .000). Two reasons may account for this result: information and social capital (*guanxi*). First, closed-loop ties will bring diverse information about the top executives to the job market, which will give the top executives more opportunity to be noticed by potential employers. Also, in the hiring process, because of multiple sources of information, closed-loop ties can help employers to confirm the executives' capability. Therefore, from the information perspective, closed-loop ties will reduce the search time and cost, thereby increasing top executives' chance to be hired at a new firm. Second, *guanxi*, defined as particularistic social ties in the Chinese context (Li, 2007), is deeply rooted in the cultural context of our research setting (Li, Zhou, Zhou & Zhang, 2019; Xiao & Tsui, 2007). Closed-loop ties will make it easier to prioritize exchanges between the top executives and their connected alters via closed *guanxi* network, which will help such top executives enjoy goodwill from alters. This will also help these top executives make a positive impression on potential employers.

Hypothesis 1 states that the severity of a firm's misconduct is negatively related to the hazard of its executives' being hired at a new firm. In Model 2, the coefficient of the CSRC fine on firms is negatively related to the chance of its top executives' being hired at a new firm, and the hazard ratio of a CSRC fine on firms is less than 1 for its top executives' being hired at a new firm (coef. = -0.126, hazard ratio = 0.882, p = .063). The hazard ratio results indicate that increasing the CSRC fine on firms by one unit will make its executives (exp(-0.126)-1=0.118) 0.118 times less likely to be hired at a new firm. Therefore, Hypothesis 1 is supported.

Hypothesis 2 states that executives' open-loop ties will attenuate the negative link between the severity of their firms' misconduct and the hazard from these executives' being hired at a new firm. In Model 3, the coefficient for the interaction term between the CSRC fine on a firm and executives' open-loop ties is positively related with the opportunity for its executives to be hired at a new firm, and the hazard ratio for the interaction term is larger than 1 for its executives hired at a new firm (coef. = 0.032, hazard ratio = 1.032, p = .000). To interpret this result, when an executive without open-loop ties, the CSRC fine on firm will yield a hazard ratio of exp (-0.266) = 0.766 (0.234 times lower than the base hazard ratio of being hired in a new firm). In contrast, when an executive with one open-loop tie, the CSRC fine on firm yields a hazard ratio of exp (-0.266 + 0.032*1 -0.014*1) = 0.780 (0.220 times lower than the base hazard ratio of being hired in a new firm). Therefore, Hypothesis 2 is supported.

Hypothesis 3 states that executives' closed-loop ties will strengthen the negative link between the severity of their firms' misconduct and the hazard of these executives' being hired at a new firm. In Model 4, the coefficient for the interaction term between the CSRC fine on firms and top executives' closed-loop ties is negatively related with the chance of their executives' being hired at a new firm, and the hazard ratio for the interaction term is less than 1 for their executives' being hired at a new firm (coef. = -0.217, hazard ratio = 0.805, p = .000). To interpret this result, when an executive without closed-loop ties, the CSRC fine on firm will yield a hazard ratio of exp (-0.117) = 0.890 (0.110 times lower than the base hazard ratio of being hired in a new firm). In contrast, when an executive with one closed-loop tie, the CSRC fine on firm yields a hazard ratio of exp (-0.117 -0.217*1 +0.046*1) = 0.750 (0.250 times lower than the base hazard ratio of being hired in a new firm). Therefore, Hypothesis 3 is supported. All results are consistent in Model 5.

-----------------------*Insert Table 3 about here*-------------------

Although our hypotheses were supported in Cox models, we are cautious about the whole model's explained and unexplained variance. Since Cox model will not provide a statistic index for explained (or unexplained) variance, we used Logit to rerun our model and got the Pseudo R^2 check of explained variance in full model (Pseudo R^2 = 0.16). This result shows about 80% unexplained variance in our model, thus possible alternative explanations about executives being hired by a new firm. We will discuss this possibility in the section of limitations and future research directions.

To illustrate the interactive effects of the severity of a firm's financial misconduct and its executives' social networks on their hiring by a new firm, we plotted the results in Figure 5. Figure 5 shows that as the number of executives' open-loop ties increases, the negative effect of the severity of financial misconduct on

the hazard of being hired by a new firm is less negative. In contrast, Figure 6 shows that, as the number of executives' closed-loop ties increases, the negative effect of the severity of the firm's financial misconduct on the hazard of being hired by a new firm is more negative.

-----------------------*Insert Figures 5 and 6 about here*-----------------

Robustness Test

Subsample test. After firms are punished for financial misconduct by the CSRC, CEOs and CFOs are more likely to be singled out, thereby suffering more negative consequences from courtesy stigma (Wiesenfeld, Wurthmann, & Hambrick, 2008). To retest our main findings, we selected CEOs and CFOs of firms that committed financial misconduct. The EHA models in Table 4 have similar findings: the coefficient of the CSRC fine on firms is negatively related to the chance that these two top executives will be hired by a new firm, and the hazard ratio of a CSRC fine on firms is less than 1 for these two top executives' hiring by a new firm (coef. = -0.058, hazard ratio = 0.944, p = 0.169); the coefficient for the interaction term between the CSRC fine on a firm and these top executives' open-loop ties is positively related to the opportunity of their hiring by a new firm, and the hazard ratio for the interaction term is larger than 1 (coef. = 0.019, hazard ratio = 1.019, p = .000); the coefficient for the interaction term between the CSRC fine on firms and these top executives' closed-loop ties is negatively related to the chance of these two executives hiring by a new firm, and the hazard ratio for the interaction term is less than 1 (coef. = -0.135, hazard ratio = 0.874, p = .000). Therefore, our main findings are supported. All results are consistent in Model 10.

-----------------------*Insert Table 4 about here*-------------------

Alternative measurements. We also measured the severity of firm misconduct with the fine adjusted by a firm's total assets. The EHA models in Table 5 have similar findings: the coefficient of the CSRC fine on firms is negatively related to the chance of top executives hiring by a new firm, and the hazard ratio of a CSRC fine on firms is less than 1 for these two top executives' being hired at a new firm (coef. = -0.293, hazard ratio = 0.746, p = 0.088); the coefficient for the interaction term between the CSRC fine on a firm and its executives' open-loop ties is positively related to the opportunity of their hiring by a new firm, and the hazard ratio for the interaction term is larger than 1 (coef. = 0.087, hazard ratio = 1.090, p = .000); the coefficient for the interaction term between the CSRC fine on firms and top executives' closed-loop ties is negatively related to the chance of top executives' being hired by a new firm, and the hazard ratio for the interaction term is less than 1 (coef. = -1.045, hazard ratio = 0.325, p = .000). Therefore, our main findings are supported. All results are consistent in Model 15.

-----------------------*Insert Table 5 about here*-------------------

Alternative empirical tools. Firm financial misconduct may not only jeopardize the hiring of executives by a new firm but also increase the potential for dismissal from interlocked firms. This result could lead to a reduction in the total number of jobs held by the executives after their firms commit financial misconduct. Therefore, to gauge the executives' career development after the firms commit misconduct, we employed the number of jobs they held in other listed firms one year after the misconduct occurred.

In addition to the CSRC fine on firms, Chinese law specifies eight levels of punishment for financial misconduct: (1) public criticism; (2) a public accusation; (3) an administrative penalty; (4) entry of the misconduct into the legal record; (5) a warning to the firm; (6) a fine; (7) withdrawal of the stock market license and closing of the firm; and (8) all of the above. We use the level of government punishment to gauge the severity of each instance of financial misconduct.

The Poisson results show that the interaction term between the severity of a firm's financial misconduct and the number of its executives' open-loop ties is positively related to the number of jobs held by the firm's executives at other listed firms (β = 0.012, p = 0.029). The interaction term between firm the severity of a firm's financial misconduct and the number of its executives' closed-loop ties is negatively related to the number of their jobs at other listed firms (β = –0.007, p = 0.018). Thus, our hypotheses are robustly supported.

Alternative mechanism test. In addition to the information pipe perspective, prior research has proposed using social capital as another key mechanism, through which social networks (or *gaunxi* in the Chinese setting) affect courtesy stigma (Kulik, Bainbridge, & Cregan, 2008; Wiesenfeld, Wurthmann, & Hambrick, 2008). Two key features of network centrality demonstrate the social capital of top executives: degree centrality and eigenvector centrality (Bao et al., 2019; Jiang et al., 2017; Markóczy, Li Sun, Peng, Shi, & Ren, 2013). Table 6 shows that the coefficient of the interaction term between the CSRC fine on a firm and these top executives' degree centrality is positively related to their opportunity of being hired at a new firm, and the hazard ratio for the interaction term is larger than 1 (coef. = 0.005, hazard ratio = 1.005, p = .034). The interaction term between the severity of a firm's financial misconduct and its executives' eigenvector centrality is not significantly related to the opportunity for hiring by a new firm (coef. = -0.224, hazard ratio = 0.799, p = .817). Therefore, our results partially support the social capital mechanism of social network regarding courtesy stigma mitigation.

----------------------*Insert Table 6 about here*-------------------

DISCUSSION

Theoretical Contributions

This paper makes two major contributions to the literature. First, we contribute to the research stream exploring the function or role of social networks in mitigating courtesy stigma for executives and others in the workplace (Kulik, Bainbridge, & Cregan, 2008; Pontikes, Negro, & Rao, 2010; Schepker & Barker III, 2018; Sutton & Callahan, 1987; Wiesenfeld, Wurthmann, & Hambrick, 2008). The stream emphasizes the positive side of social networks in courtesy stigma mitigation but largely neglected the negative side or hazards of social networks. In addition, this stream's findings about social networks and courtesy stigma mitigation are primarily based upon theoretical arguments and case studies, thus lacking generalizable empirical findings (Kulik, Bainbridge, & Cregan, 2008; Sutton & Callahan, 1987; Wiesenfeld, Wurthmann, & Hambrick, 2008). Taking the information pipe perspective, we divided executives' social networks into open-loop and closed-loop ties. Using longitudinal data from China, we found that after a firm commits financial misconduct, its

executives' open-loop ties could mitigate courtesy stigma because of the insulation mechanism. Surprisingly, executives' closed-loop ties amplify courtesy stigma because of the exposure mechanism. Hence, from the information pipe perspective, we identified the dual effects of social networks in mitigating courtesy stigma. Our new findings complement prior research that focuses only on the positive side of social networks for courtesy stigma mitigation by providing stronger theoretical and empirical support for the complex roles or functions of social networks in mitigating courtesy stigma.

Second, we also contribute to the research stream on structural holes (Burt, 1992; Ma, Huang, & Shenkar, 2011; Zaheer & Bell, 2005; Tsui & Xiao, 2007). Structural hole theory proposes that an individual as a broker interconnecting two disconnected individuals has an informational advantage over the other two individuals. However, when the informational advantage is based upon information access in the case of a complex event, a structural hole may not always offer brokers an informational advantage, and an informational advantage may not require a structural hole. In our research setting, the fundamental reason that a focal actor has an informational advantage over others is not whether two actors are connected but whether the two can access another information source regarding the event. For instance, according to structural hole theory, network structure F-A-H will give A an informational advantage over F and H, and the closure of F and H will remove the informational advantage of A. However, in our case, even if F and H are connected, A still has an informational advantage over F and H because F and H have no other information sources. In terms of network structure K-A-D, A has an informational advantage over K based on structural hole theory. However, in our case, because K has another source of information, A has no informational advantage over K. In this sense, we find that when an informational advantage derives from knowledge about certain complex events, those who have open-loop ties will enjoy an informational advantage, in contrast to brokers of structural holes. Our empirical findings support our argument by showing that executives with open-loop ties suffer less from firm-level misconduct because of an informational advantage over potential employers, and executives with closed-loop ties suffer more because of losing an informational advantage. Hence, we enrich understanding about structural hole theory by specifying its theoretical boundaries, and we reveal a new network structure for informational advantage.

Limitations and Future Research Directions

Our study has some limitations. First, we only studied open-loop and closed-loop ties between executives at one firm and corporate leaders at other firms after a firm engages in misconduct. However, we do not know whether open-loop and closed-loop ties should be expanded to include other external audiences, such as government officials and public media. Future research is needed to study executives' open-loop and closed-loop ties with government officials and public media and investigate how they affect courtesy stigma. In addition, several characteristics of open-loop and closed-loop ties need further investigation, such as the distance between closed-loop and open-loop ties in a network. How the distance between these two types of social ties shape the effect of courtesy stigma is still unclear.

Second, one possibility for only 20% unexplained variance of executives' chance to be hired by a new

firm is that there could be alternative explanations about the information mechanism of social networks. One of the alternative explanations is favor exchange related to social networks. Especially regarding to the bright side of social networks in mitigating courtesy stigma, favor exchange may also work the same way as information exchange because social networks (or *guanxi*) in China can help executives to gain some biased attitudes, such as forgiveness, from stakeholders (Haveman et al., 2017; Li, 2007; Li et al., 2019; Xiao & Tsui, 2007). In this case, they may still have a good chance to be hired by a new firm. Our robust in the alternative mechanism test as well as prior research has partially supported this argument (e.g., Wiesenfeld, Wurthmann, & Hambrick, 2008). One reason for us not to emphasize favor exchange theoretically and empirically is that prior research has discussed this issue, thus no longer novel (e.g., Wiesenfeld et al., 2008). Another reason is that favor exchange via *guanxi* is sensitive and personal, thereby hard to obtain accurate data. Future research could use survey and interview methods to obtain first-hand data on the favor exchange of top executives in those firms involved in financial misconduct, which we believe is promising as well as challenging issue to tackle.

Third, we studied executives' interlock networks after a firm committed misconduct but overlooked other types of networks, including education networks, informal social networks, and networks of prior firm employees. Future research is encouraged to pay more attention to these types of networks so as to test the generalizability of our findings to other settings.

Fourth, in this paper, we did not consider the characteristics of new firms that hire those top executives. Future research could study several important characteristics of the new employers, including board social capital, human capital, and CEO features. This type of study would broaden our research from the top executive's perspective to the employer's perspective. Also, future research could examine whether or not the executives were hired by directly connected new firm.

Finally, we studied only open-loop and closed-loop ties in the particular context of firm-level misconduct. More research is needed to study these two types of social networks in other contexts. For instance, the creativity literature argues that the exchange of knowledge between heterogeneous social networks can drive creativity. Do open-loop and closed-loop ties help boost employee creativity? We encourage researchers to study the role of open-loop and closed-loop ties in diverse contexts, such as creativity, innovation, entrepreneurship, strategy management, and cross-cultural alliance, and mergers and acquisitions (M&As).

Conclusion

Do executives' social networks always mitigate courtesy stigma after firms have committed misconduct? Based upon the information pipe perspective, we specify the dual effects of social networks as a double-edged sword in courtesy stigma mitigation. We found that, after a firm commits financial misconduct, its executives' open-loop ties mitigate courtesy stigma because of the insulation mechanism, whereas their closed-loop ties amplify courtesy stigma because of the exposure mechanism. These findings enrich our knowledge about a social network's complex role in courtesy stigma mitigation above and beyond the two prevailing assumptions: that a social network is always positive for courtesy stigma mitigation, and brokers for structural holes always enjoy an informational advantage. Further research is needed to enrich and extend this line of inquiry.

References

Arthaud-Day, M.L., Certo, S.T., Dalton, C.M., & Dalton, D.R. 2006. A changing of the guard: Executive and director turnover following corporate financial restatements. *Academy of Management Journal*, 49(6):1119-1136.

Bao, F., Tian, L., & Li, P. P. 2018. Will social networks always work in mitigating courtesy stigma. *Academy of Management(AOM)*.

Baumeister, R.F., Bratslavsky, E., Finkenauer, C., & Vohs, K.D. 2001. Bad is stronger than good. *Review of General Psychology*, 5(4): 323-370.

Beckman, C. M., Haunschild, P. R., & Phillips, D. J. 2004. Friends or strangers? Firm-specific uncertainty, market uncertainty, and network partner selection. *Organization Science*, 15(3): 259-275.

Brands, R. A., & Kilduff, M. 2013. Just like a woman? Effects of gender-biased perceptions of friendship network brokerage on attributions and performance. *Organization Science*, 25(5): 1530-1548.

Burt, R.S. 1992. *Structural holes: The social structure of competition*. Cambridge, Mass: Harvard University Press.

Castellucci, F., & Ertug, G. 2010. What's in it for them? Advantages of higher-status partners in exchange relationships. *Academy of Management Journal*, 53(1):149-166.

Chen, G., Firth, M., Gao, D. N., & Rui, O. M. 2006. Ownership structure, corporate governance, and fraud: Evidence from China. *Journal of Corporate Finance*, 12(3): 424-448.

Chen, J., Cumming, D., Hou, W., & Lee, E. 2016. Does the external monitoring effect of financial analysts deter corporate fraud in China. *Journal of Business Ethics,* 134(4): 727-742.

Chizema, A., Liu, X., Lu, J., & Gao, L. 2015. Politically connected boards and top executive pay in Chinese listed firms. *Strategic Management Journal*, 36(6): 890-906.

Cooper, D., Doucet, L., & Pratt, M. 2007. Understanding 'appropriateness' in multinational organizations. *Journal of Organizational Behavior*, 28(3):303-325.

Cowen, A. P., & Marcel, J. J. 2011. Damaged goods: Board decisions to dismiss reputationally compromised directors. *Academy of Management Journal*, 54(3): 509-527.

Cox, D. R. 1972. Regression models and life-tables. *Journal of the Royal Statistical Society: Series B (Methodological)*, 34(2): 187-202.

Crisp, R. J., & Hewstone, M. 2001. Multiple categorization and implicit intergroup bias: Differential category dominance and the positive–negative asymmetry effect. *European Journal of Social Psychology,* 31(1): 45-62.

Cumming, D., Leung, T. Y., & Rui, O. 2015. Gender diversity and securities fraud. *Academy of management Journal*, 58(5):572-1593.

Devers, C.E., Dewett, T., Mishina, Y., & Belsito, C.A. 2009. A general theory of organizational stigma. *Organization Science*, 20(1):154-171.

Eagly, A. H., & Steffen, V. J. 1984. Gender stereotypes stem from the distribution of women and men into social roles. *Journal of Personality and Social Psychology*, 46(4): 735.

Elsbach, K. D., & Sutton, R. I. 1992. Acquiring organizational legitimacy through illegitimate actions: A marriage of institutional and impression management theories. *Academy of management Journal*, 35(4): 699-738.

Fee, C.E., & Hadlock, C.J. 2004. Management turnover across the corporate hierarchy. *Journal of Accounting and Economics*, 37: 3-38.

Gable, S.L., & Haidt, J. 2005. What (and why) is positive psychology. *Review of General Psychology*, 9(2):103-110.

Gilson, S. C. 1990. Bankruptcy, boards, banks and blockholders: Evidence on changes in corporate ownership and control when firms default. *Journal of Financial Economics*, 27: 355-388.

Goffman, E. 1963. *Stigma: Notes on the management of spoiled identity.* Englewood Cliffs, NJ: Prentice-Hall.

Hamori, M. 2007. Career success after stigmatizing organizational events. *Human Resource Management*, 46(4):493-511.

Harris, J., & Bromiley, P. 2007. Incentives to cheat: The influence of executive compensation and firm performance on financial misrepresentation. *Organization Science*, 18(3):350-367.

Haveman, H. A., Jia, N., Shi, J., & Wang, Y. 2017. The dynamics of political embeddedness in China. *Administrative Science Quarterly,* 62(1): 67-104.

Hudson, B. A., & Okhuysen, G. A. 2009. Not with a ten-foot pole: Core stigma, stigma transfer, and improbable persistence of men's bathhouses. *Organization Science*, 20(1): 134-153.

Jiang, H., Cannella Jr, A. A., Xia, J., & Semadeni, M. 2017. Choose to fight or choose to flee? A network embeddedness perspective of executive ship jumping in declining firms. *Strategic Management Journal*, 38(10): 2061-2079.

Kaplan, S., & Reishus, D. 1990. Outside directorships and corporate performance. *Journal of Financial Economics*, 27: 389-410.

Katila, R., & Shane, S. 2005. When does lack of resources make new firms innovative. *Academy of Management Journal*, 48(5): 814-829.

Kelly, D., & Amburgey, T. L. 1991. Organizational inertia and momentum: A dynamic model of strategic change. *Academy of Management Journal*, 34(3): 591-612.

Kulik, C.T., Bainbridge, H.T.J., & Cregan, C. 2008. Known by the company we keep: Stigma-by-association effects in the workplace. *Academy of Management Review*, 33(1): 216-230.

Kurzban, R., & Leary, M.R. 2001. Evolutionary origins of stigmatization: The functions of social exclusion. *Psychological Bulletin*, 127(2): 187-208.

Li, P.P., 2007. Social tie, social capital, and social behavior: toward an integrative model of informal exchange. *Asia Pacific Journal of Management*, 24 (2): 227-246.

Li, P. P., Zhou, S.S., Zhou, A.J., & Yang, Z. 2019. Reconceptualizing and redirecting research on guanxi: 'guan-xi' interaction to form a multicolored Chinese knot. *Management and Organization Review*, 15(3): 643–677.

Liang, K.Y., & Zeger, S.L. 1986. Longitudinal data analysis for discrete and continuous outcomes. *Biometrics*, 42(1):121-130.

Link, B.G., & Phelan, J. C. 2001. Conceptualizing stigma. *Annual Review of Sociology*, 27: 3603-385.

Luo, X., Wang, H., Raithel, S., & Zheng, Q. 2015. Corporate social performance, analyst stock recommendations, and firm future returns. *Strategic Management Journal,* 36(1): 123-136.

Ma, R., Huang,Y.-C., & Shenkar, O. 2011.Social networks and opportunity recognition: A cultural comparison between Taiwan and the United States. *Strategic Management Journal*, 32(11): 1183-1205.

Markóczy, L., Sun, S.L., Peng, M.W., Shi, W., & Ren, B. 2013. Social network contingency, symbolic management, and boundary stretching. *Strategic Management Journal*, 34(11):1367-1387.

Marquis, C., & Bird, Y. 2018. The paradox of responsive authoritarianism: How civic activism spurs environmental penalties in China. *Organization Science*, 29(5):948-968.

Marquis, C., & Qian, C. 2013. Corporate social responsibility reporting in China: Symbol or substance. *Organization Science*, 25(1):127-148.

Maurer, T.J. 2001. Career-relevant learning and development, worker age, and beliefs about self-efficacy for development. *Journal of Management*, 27:123-140.

McDonnell, M.-H., & King, B. 2013. Keeping up appearances: Reputational threat and impression management after social movement boycotts. *Administrative Science Quarterly*, 58(3): 387-419.

McKinley, W., Ponemon, L.A., & Schick, A.G.1996. Auditors' perceptions of client firms: The stigma of decline and the stigma of growth. *Accounting, Organizations and Society*, 21(2–3):193-213.

Owen-Smith, J., & Powell, W.W. 2004. Knowledge networks as channels and conduits: The effects of spillovers in the Boston biotechnology community. *Organization Science*,15(1): 5-21.

Ozmel, U., & Guler, I. 2015. Small fish, big fish: The performance effects of the relative standing in partners' affiliate portfolios. *Strategic Management Journal*, 36(13): 2039-2057.

Paruchuri, S. 2010. Intraorganizational networks, interorganizational networks, and the impact of central inventors: A longitudinal study of pharmaceutical firms. *Organization Science*, 21(1): 63-80.

Paxton, P., & Moody, J. 2003. Structure and sentiment: Explaining emotional attachment to group. *Social*

Psychology Quarterly, 34-47.

Peeters, G., & Czapinski, J. 1990. Positive-negative asymmetry in evaluations: The distinction between affective and informational negativity effects. *European Review of Social Psychology*, 1: 33-60.

Peltonen, T. 1998. Narrative construction of expatriate experience and career cycle: Discursive patterns in Finnish stories of international. *International Journal of Human Resource Management*, 9(5): 875-892.

Pescosolido, B. A., & Martin, J. K. 2015. The stigma complex. *Annual Review of Sociology*, 41: 87-116.

Podolny, J.M. 2001.Networks as the pipes and prisms of the market. *American Journal of Sociology*, 107(1):33-60.

Pontikes, E., Negro, G., & Rao, H. 2010. Stained red: A study of stigma by association to blacklisted artists during the "red scare" in Hollywood, 1945 to 1960. *American Sociological Review*, 75(3): 456-478.

Sallop, L.J., & Kirby, S.L. 2007. The role of gender and work experience on career and work force diversity expectations. *Journal of Behavioral & Applied Management*, 8(2):122-140.

Schepker, D. J., & Barker III, V. L. 2018. How stigmatized are dismissed chief executives? The role of character questioning causal accounts and executive capital in dismissed CEO reemployment. *Strategic Management Journal*, 39(9):2566-2586.

Seibert, S.E., Crant, J.M., & Kraimer, M.L.1999. Proactive personality and career success. *Journal of Applied Psychology*, 84(3):416-427.

Seibert, S.E., Kraimer, M.L., & Liden, R.C. 2001. A social capital theory of career success. *Academy of Management Journal*, 44(2):219-237.

Semadeni, M., Cannella,A.A., Fraser, D.R., & Lee, D.S. 2008. Fight or flight: Managing stigma in executive careers. *Strategic Management Journal*, 29(5): 557-567.

Shipilov, A.V., Greve, H.R., & Rowley, T.J. 2010. When do interlocks matter? Institutional logics and the diffusion of multiple corporate governance practices. *Academy of Management Journal*, 53(4):846-864.

Skowronski, J. J., & Carlston, D. E. 1992. Caught in the act: When impressions based on highly diagnostic behaviours are resistant to contradiction. *European Journal of Social Psychology*, 22: 435-452.

Staw, B. M., & Hoang, H. 1995. Sunk costs in the NBA: Why draft order affects playing time and survival in professional basketball. *Administrative Science Quarterly*, 474-494.

Sutton, R.I., & Callahan, A.L.1987.The stigma of bankruptcy: Spoiled organizational image and its management. *Academy of Management Journal*, 30(3):405-436.

Taylor, S.E. 1991. Asymmetrical effects of positive and negative events: The mobilization-minimization hypothesis. *Psychological Bulletin,* 110(l):67-85.

Tetlock, P. E. 2002. Social functionalist frameworks for judgment and choice: Intuitive politicians, theologians and prosecutors. *Psychological Review*, 109: 451-471.

Thornhill, S., & Amit, R. 2003. Learning about failure: Bankruptcy, firm age, and the resource-based view. *Organization Science,* 14(5):497-509.

Tian, L., Tse, C.H., Xiang, X., Li, Y., & Pan, Y. 2021. Social movements and international business activities of firms. *Journal of International Business Studies,* online.

Wiesenfeld, B.M., Wurthmann,K.A., & Hambrick, D.C. 2008. The stigmatization and devaluation of elites associated with corporate failures: A process model. *Academy of Management Review,* 33(1):231-251.

Wilson, R.J.1995. *Introduction to graph theory (forth edition)*. Longman Group.

Xiao, Z., & Tsui. A.S. 2007.When brokers may not work: The cultural contingency of social capital in Chinese high-tech firms. *Administrative Science Quarterly,* 52: 1-31.

Yiu, D. W., Xu, Y., & Wan, W. P. 2014. The deterrence effects of vicarious punishments on corporate financial fraud. *Organization Science,* 25(5): 1549-1571.

Yu, T., & Cannella Jr, A. A. 2007. Rivalry between multinational enterprises: An event history approach. *Academy of Management Journal,* 50(3):665-686.

Yzerbyt, V.Y., & Leyens, J.P. 1991. Requesting information to form an impression: The influence of valence and confirmatory status. *Journal of Experimental Social Psychology,* 27:337-356.

Zaheer, A., & Bell, G. G. 2005. Benefiting from network position: firm capabilities, structural holes, and performance. *Strategic Management Journal,* 26(9): 809-825.

Zaheer, A., Gözübüyük, R., & Milanov, H. 2010. It's the connections: The network perspective in interorganizational research. *Academy of Management Perspectives,* 24(1):62-77.

Zhang, J. 2018. Public governance and corporate fraud: Evidence from the recent anti-corruption campaign in China. *Journal of Business Ethics,* 148(2): 375-396.

Zhang, Y., & Qu, H. 2016. The impact of CEO succession with gender change on firm performance and successor early departure: Evidence from China's publicly listed companies in 1997–2010. *Academy of Management Journal,* 59(5):1845-1868.

Zhang, R., Wang, M. S., Toubiana, M., & Greenwood, R. 2021. Stigma beyond levels: Advancing research on stigmatization. *Academy of Management Annals,* 15(1): 188-222.
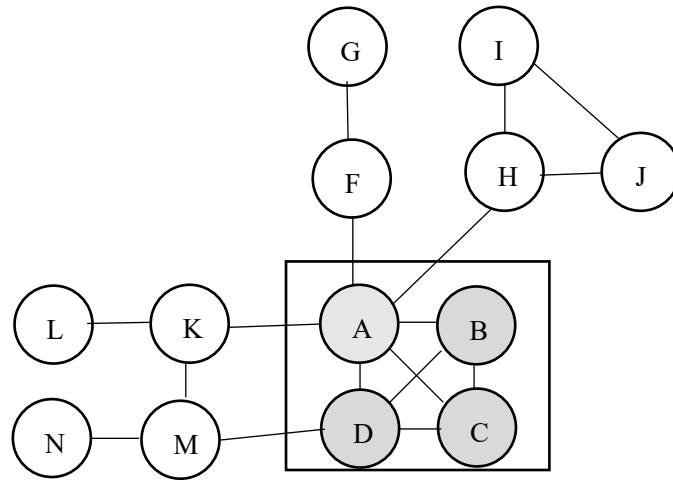
Figure 1. Open-loop ties and closed-loop ties of executives in firms accused of misconduct. Note: 1. A has three external ties, A-F, A-H, and A-K. A-F and A-H are A's open-loop ties, and A-K is A's closed-loop tie.

Ratio of executives being hired by a new firm
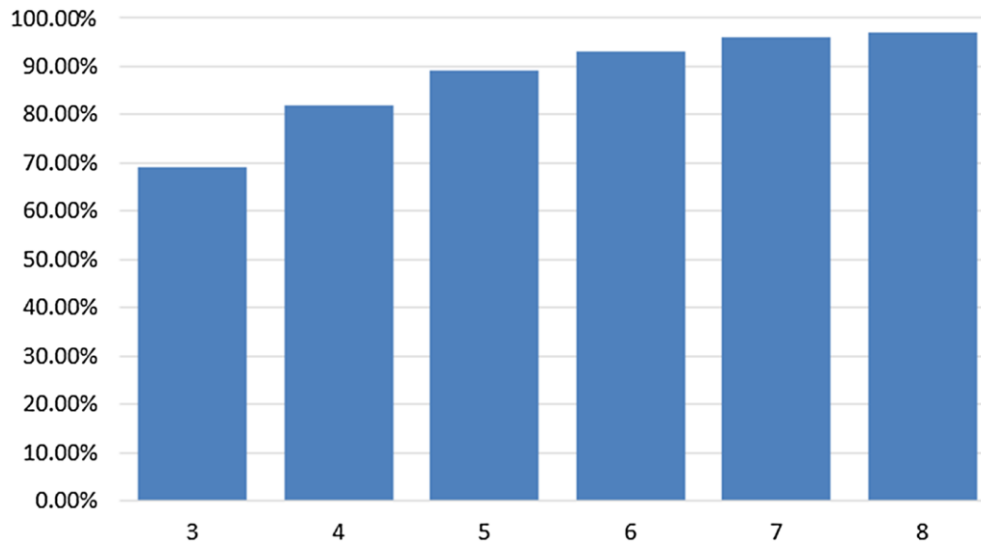
Figure 2. Cumulated distribution of executives being hired by a new firm after their firms being punished by the CSRC
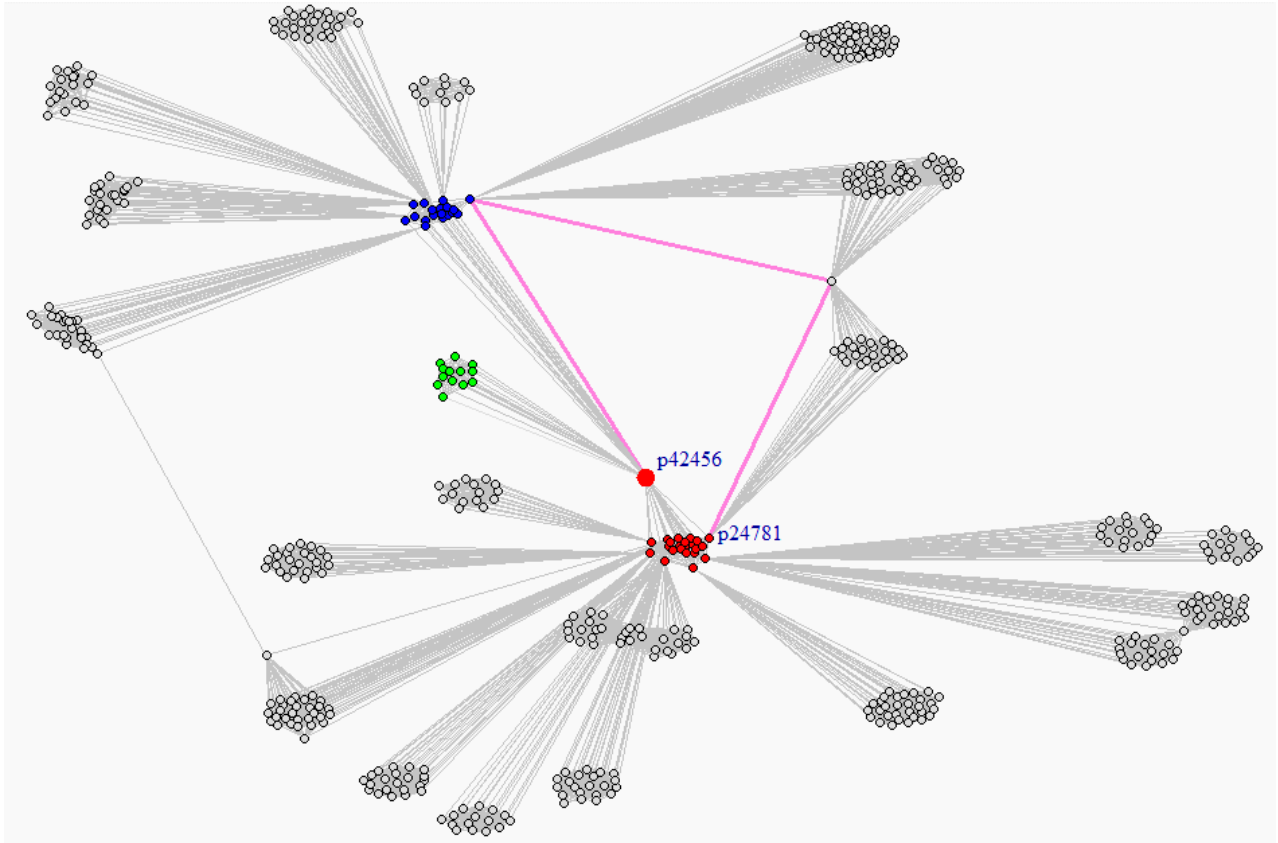
Figure 3. Open-loop ties and closed-loop ties in our sample.

Hazard of being hired by a new firm
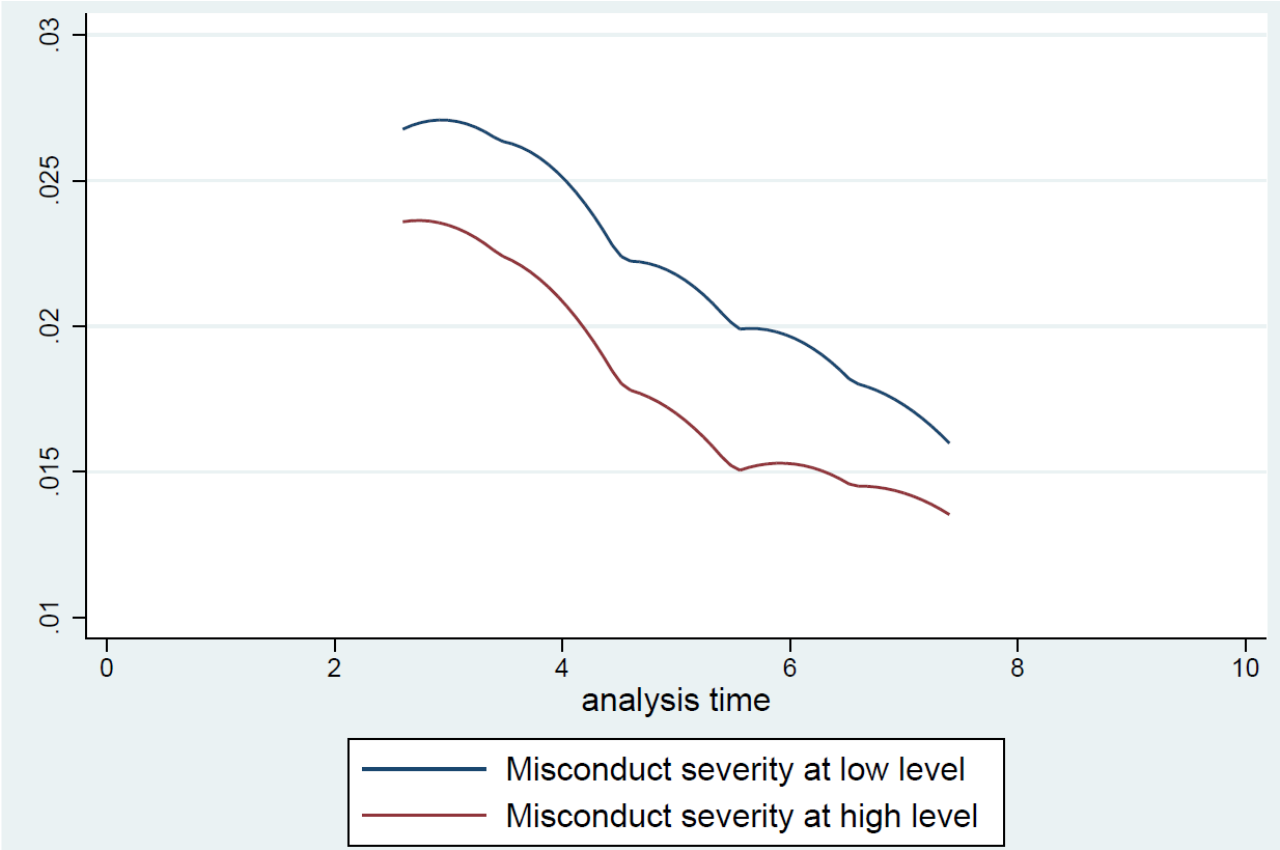
Figure 4. Hazard function for executives in firms committing financial misconducts.

Table 1. Firm financial misconduct description.

Financial misconduct type	Frequency of firms involved
Delay in disclosure information	17.40%
Major information omission	15.35%
False statements	12.67%
Illegal share buybacks	11.86%
Mishandling the general accounting	6.35%
Firm's asset occupation	2.99%
Insider trading	2.30%
Illegal loan guarantee	1.71%
Fabrication of profit	1.62%
Unauthorized change in use of funds	1.54%
Major failure to disclose information	1.02%
Fabrication of assets	0.55%
Fraudulent listing	0.04%
Stock price manipulation	0.04%
Others	24.56%

Note. One CSRC punishment could be put on more than one type of financial misconduct type.

Table 2. Descriptive statistics.

Variable	Mean	S.D.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
1.Executive hire in a new firm	0.024	0.153																				
2. *ln* (Misconduct severity)	0.663	2.832	-0.031																			
3.Executives' open loop tie	0.111	1.826	0.012	0.001																		
4.Executives' closed loop tie $_l$	0.959	5.389	0.140	-0.024	0.030																	
5.Executives' gender	0.142	0.350	-0.005	-0.003	-0.015	-0.025																
6.Executives' eigenvector centrality	0.0003	0.002	0.028	-0.022	-0.003	0.004	-0.013															
7.Executives' degree centrality	23.35	9.024	0.112	-0.009	0.206	0.618	-0.054	0.087														
8.Executives' structural hole	0.806	0.049	0.083	-0.025	-0.001	0.125	-0.051	0.080	0.589													
9. *ln* (Executives' salary)	12.11	2.435	-0.001	-0.081	0.007	0.012	-0.018	0.037	0.032	0.002												
10.Executives' age	45.54	6.998	-0.031	-0.011	-0.007	-0.005	-0.152	0.035	0.084	0.093	0.052											
11.Executives' overseas experience	0.029	0.169	0.003	-0.029	0.010	0.015	-0.004	-0.010	-0.004	-0.001	-0.006	-0.013										
12.Executives' academic experience	0.057	0.233	0.006	-0.032	0.022	0.023	-0.038	-0.006	0.009	-0.013	0.048	0.079	0.012									
13. *ln* (Firm size)	21.60	1.672	0.046	-0.156	0.002	0.042	-0.078	0.057	0.211	0.311	0.213	0.084	0.018	-0.019								
14.Firm TMT size	7.181	2.713	-0.001	-0.060	-0.018	0.000	-0.063	0.033	0.360	0.520	0.080	0.079	0.032	0.010	0.234							
15.Firm board size	8.940	1.699	0.015	-0.054	-0.018	-0.002	-0.039	0.048	0.298	0.474	0.097	0.075	0.011	-0.016	0.246	0.264						
16.Firm institutional share rate	6.154	7.995	0.012	-0.010	-0.021	0.027	-0.029	-0.043	0.084	0.123	0.009	0.042	0.023	0.023	0.062	0.086	0.154					
17.Firm state share rate	0.062	0.151	-0.004	0.006	-0.001	-0.012	-0.029	-0.015	0.069	0.146	-0.001	0.021	-0.028	0.012	0.095	0.004	0.137	0.126				
18.Firm board share rate	0.122	0.197	0.005	-0.096	0.016	-0.011	0.015	0.001	-0.188	-0.188	0.040	-0.116	0.029	0.057	-0.128	-0.025	-0.144	-0.085	-0.222			
19.Firm performance	6.366	13.770	-0.023	0.096	-0.008	0.003	0.007	-0.011	-0.052	-0.082	0.000	0.005	-0.003	0.039	-0.071	0.000	0.000	0.108	0.037	0.001		
20.*ln* (Firm media attention)	4.377	0.468	0.006	0.059	-0.004	0.019	-0.013	-0.047	0.052	0.061	0.023	-0.027	0.018	0.012	0.082	0.089	0.018	0.035	0.051	-0.029	0.064	
21.*ln* (Firm analyst attention)	2.542	1.305	0.029	-0.117	0.002	0.034	-0.043	-0.038	0.045	0.139	0.209	0.057	0.046	0.060	0.358	0.233	0.191	0.188	0.004	0.193	0.170	0.208

Note. N = 5090.

Table 3. Results of Cox regression on executives' hire in a new firm.

	Model 1			Model 2			Model 3			Model 4			Model 5		
	Coef.	Hazard ratio	p	Coef.	Hazard ratio	p	Coef.	Hazard ratio	P	Coef.	Hazard ratio	p	Coef.	Hazard ratio	p
Executive level control															
Open-loop tie	0.011	1.011	0.669	0.011	1.012	0.662	-0.014	0.987	0.762	0.011	1.011	0.667	-0.014	0.987	0.762
Closed-loop tie	0.047	1.049	0.000	0.046	1.047	0.002	0.047	1.048	0.003	0.046	1.047	0.002	0.047	1.048	0.002
Gender	-0.131	0.877	0.234	-0.136	0.872	0.232	-0.127	0.881	0.271	-0.137	0.872	0.227	-0.127	0.880	0.269
Eigenvector centrality	1.071	2.918	0.063	1.090	2.973	0.059	1.085	2.960	0.061	1.100	3.004	0.059	1.087	2.966	0.061
Degree centrality	-0.010	0.990	0.422	-0.009	0.991	0.526	-0.010	0.990	0.505	-0.009	0.991	0.523	-0.010	0.990	0.504
Structural hole	0.808	2.244	0.000	0.809	2.246	0.000	0.821	2.273	0.000	0.810	2.248	0.000	0.821	2.272	0.000
ln(salary)	-0.031	0.969	0.021	-0.032	0.968	0.020	-0.031	0.969	0.019	-0.032	0.969	0.020	-0.031	0.969	0.019
Age	-0.040	0.961	0.000	-0.040	0.961	0.000	-0.039	0.962	0.000	-0.040	0.961	0.000	-0.039	0.962	0.000
Overseas experience	-0.033	0.967	0.880	-0.040	0.961	0.858	-0.017	0.983	0.937	-0.039	0.962	0.861	-0.017	0.983	0.937
Academic experience	0.044	1.045	0.908	0.021	1.021	0.955	0.014	1.014	0.970	0.020	1.020	0.958	0.014	1.014	0.970
Firm level control															
ln(Firm size)	0.309	1.362	0.001	0.321	1.378	0.001	0.328	1.388	0.000	0.322	1.380	0.001	0.328	1.388	0.000
TMT size	-0.102	0.903	0.002	-0.096	0.909	0.003	-0.098	0.907	0.004	-0.095	0.909	0.003	-0.098	0.907	0.004
Board size	0.018	1.019	0.791	0.012	1.012	0.863	0.014	1.014	0.826	0.011	1.011	0.869	0.014	1.014	0.826
Institutional share rate	0.002	1.002	0.805	0.000	1.000	0.982	-0.001	0.999	0.927	0.000	1.000	0.978	-0.001	0.999	0.929
State share rate	-0.352	0.703	0.765	-0.393	0.675	0.741	-0.404	0.667	0.734	-0.396	0.673	0.739	-0.405	0.667	0.734
Board share rate	0.309	1.362	0.756	0.301	1.351	0.766	0.300	1.350	0.770	0.303	1.354	0.764	0.300	1.351	0.770
Firm performance	-0.023	0.978	0.001	-0.022	0.978	0.002	-0.022	0.979	0.001	-0.022	0.978	0.002	-0.022	0.979	0.001
ln (Media attention)	-0.132	0.877	0.426	-0.130	0.878	0.436	-0.131	0.877	0.459	-0.130	0.878	0.435	-0.131	0.877	0.459
ln (Analyst attention)	0.146	1.158	0.370	0.137	1.147	0.409	0.137	1.146	0.410	0.136	1.146	0.412	0.136	1.146	0.411
Main effect															
ln (Misconduct severity)				**-0.126**	**0.882**	**0.063**	**-0.266**	**0.766**	**0.000**	**-0.117**	**0.890**	**0.064**	**-0.258**	**0.773**	**0.000**
Interactive effect															
ln (Misconduct severity) X Open-loop tie							**0.032**	**1.032**	**0.000**				**0.031**	**1.032**	**0.000**
ln (Misconduct severity) X Closed-loop tie										**-0.217**	**0.805**	**0.000**	**-0.206**	**0.814**	**0.000**
Log likelihood		-936.9			-934.8			-931.7			-934.7			-931.7	
Wald χ2		9318.5	0.000		6937.8	0.000		19.80	0.001		7362.1	0.000		7148.6	0.000
N		5,090			5,090			5,090			5,090			5,090	

Note. We report coefficients, hazard ratios, and *p* values based upon robust standard errors. Hazard ratios are interpreted as the proportional change in hazard rate from a one-unit increase in the independent variable. Hazard ratios can be calculated based upon estimated coefficients by exponential function. Year dummies and industry dummies are included here, but not reported.

Table 4. Results of Cox regression on executives' hire in a new firm with subsample.

	Model 6			Model 7			Model 8			Model 9			Model 10		
	Coef.	Hazard ratio	p	Coef.	Hazard ratio	p	Coef.	Hazard ratio	p	Coef.	Hazard ratio	p	Coef.	Hazard ratio	p
Executive level control															
Open-loop tie	0.015	1.015	0.710	0.021	1.021	0.550	-0.171	0.843	0.000	0.020	1.021	0.552	-0.171	0.843	0.000
Closed-loop tie	0.047	1.048	0.048	0.042	1.043	0.058	0.042	1.042	0.065	0.043	1.044	0.054	0.042	1.043	0.061
Gender	-0.327	0.721	0.320	-0.330	0.719	0.320	-0.314	0.731	0.352	-0.332	0.718	0.318	-0.315	0.730	0.351
Eigenvector centrality	-0.109	0.897	0.049	-0.116	0.890	0.059	-0.132	0.877	0.030	-0.116	0.890	0.060	-0.131	0.877	0.030
Degree centrality	-0.016	0.984	0.452	-0.012	0.988	0.571	-0.011	0.989	0.604	-0.012	0.988	0.560	-0.011	0.989	0.594
Structural hole	0.513	1.671	0.080	0.522	1.685	0.078	0.507	1.660	0.084	0.524	1.689	0.076	0.509	1.663	0.081
CFO	-0.253	0.776	0.315	-0.255	0.775	0.305	-0.249	0.779	0.311	-0.254	0.776	0.308	-0.249	0.780	0.313
ln(salary)	-0.028	0.972	0.365	-0.032	0.969	0.243	-0.033	0.968	0.223	-0.032	0.969	0.250	-0.033	0.968	0.229
Age	0.002	1.002	0.926	0.002	1.002	0.922	0.003	1.003	0.892	0.002	1.002	0.918	0.003	1.003	0.888
Overseas experience	0.761	2.140	0.000	0.754	2.126	0.000	0.758	2.134	0.000	0.754	2.125	0.000	0.757	2.132	0.000
Academic experience	-0.309	0.734	0.523	-0.316	0.729	0.511	-0.307	0.736	0.521	-0.313	0.731	0.515	-0.304	0.738	0.524
Firm level control															
ln(Firm size)	0.212	1.236	0.009	0.212	1.236	0.008	0.224	1.251	0.006	0.212	1.237	0.008	0.224	1.252	0.006
TMT size	-0.072	0.930	0.265	-0.076	0.927	0.239	-0.074	0.929	0.249	-0.075	0.927	0.240	-0.073	0.929	0.249
Board size	0.016	1.016	0.850	0.012	1.013	0.882	0.016	1.016	0.849	0.012	1.012	0.884	0.016	1.016	0.850
Institutional share rate	0.015	1.015	0.283	0.019	1.019	0.115	0.019	1.020	0.102	0.019	1.019	0.121	0.019	1.020	0.107
State share rate	-2.523	0.080	0.028	-2.692	0.068	0.017	-2.706	0.067	0.018	-2.673	0.069	0.017	-2.689	0.068	0.018
Board share rate	-0.468	0.626	0.181	-0.487	0.615	0.182	-0.461	0.631	0.203	-0.484	0.616	0.183	-0.459	0.632	0.204
Firm performance	0.002	1.002	0.578	0.002	1.002	0.632	0.002	1.002	0.613	0.002	1.002	0.632	0.002	1.002	0.614
ln (Media attention)	-0.048	0.953	0.581	-0.068	0.934	0.407	-0.045	0.956	0.626	-0.069	0.934	0.399	-0.046	0.955	0.619
ln (Analyst attention)	-0.023	0.978	0.470	-0.022	0.978	0.444	-0.032	0.968	0.189	-0.023	0.977	0.430	-0.033	0.967	0.183
Main effect															
ln (Misconduct severity)				**-0.058**	**0.944**	**0.169**	**-0.066**	**0.936**	**0.099**	**-0.057**	**0.945**	**0.169**	**-0.065**	**0.937**	**0.098**
Interactive effect															
ln (Misconduct severity) X Open-loop tie							**0.019**	**1.019**	**0.000**				**0.019**	**1.019**	**0.000**
ln (Misconduct severity) X Closed-loop tie										**-0.135**	**0.874**	**0.000**	**-0.161**	**0.851**	**0.000**
Log likelihood		-550.9			-549.9			-549.3			-549.8			-549.2	
Wald χ2		7304.4	0.000		5819.5	0.000		6159.6	0.000		4854.8	0.000		6877.2	0.000
N		2,566			2,566			2,566			2,566			2,566	

Note. Same with Table 3.

Table 5. Results of Cox regression on executives' hire in a new firm with alternative measurement for misconduct severity.

	Model 11			Model 12			Model 13			Model 14			Model 15		
	Coef.	Hazard ratio	p	Coef.	Hazard ratio	p	Coef.	Hazard ratio	p	Coef.	Hazard ratio	p	Coef.	Hazard ratio	p
Executive level control															
Open-loop tie	0.020	1.020	0.136	0.018	1.018	0.186	0.001	1.001	0.973	0.018	1.018	0.184	0.001	1.001	0.972
Closed-loop tie	0.044	1.045	0.000	0.042	1.043	0.002	0.044	1.045	0.002	0.042	1.043	0.002	0.044	1.045	0.002
Gender	-0.123	0.884	0.421	-0.131	0.877	0.375	-0.122	0.885	0.391	-0.132	0.876	0.370	-0.122	0.885	0.390
Eigenvector centrality	0.499	1.647	0.120	0.498	1.646	0.119	0.494	1.638	0.120	0.501	1.651	0.118	0.494	1.639	0.120
Degree centrality	-0.011	0.989	0.385	-0.009	0.991	0.501	-0.010	0.990	0.449	-0.009	0.991	0.496	-0.010	0.990	0.448
Structural hole	0.758	2.133	0.000	0.764	2.147	0.000	0.771	2.161	0.000	0.765	2.150	0.000	0.770	2.160	0.000
ln(salary)	-0.022	0.979	0.460	-0.024	0.976	0.392	-0.024	0.977	0.394	-0.024	0.977	0.395	-0.024	0.977	0.395
Age $_t$	-0.042	0.959	0.000	-0.041	0.959	0.000	-0.041	0.960	0.000	-0.041	0.960	0.000	-0.041	0.960	0.000
Overseas experience	0.026	1.026	0.942	0.012	1.012	0.974	0.009	1.009	0.980	0.012	1.012	0.974	0.009	1.009	0.980
Academic experience	0.178	1.194	0.624	0.168	1.182	0.640	0.167	1.182	0.640	0.167	1.182	0.641	0.167	1.182	0.640
Firm level control															
ln(Firm size)	0.197	1.218	0.104	0.197	1.217	0.118	0.205	1.227	0.113	0.198	1.219	0.118	0.205	1.227	0.113
TMT size	-0.113	0.893	0.000	-0.115	0.891	0.000	-0.118	0.888	0.000	-0.115	0.891	0.000	-0.118	0.888	0.000
Board size	-0.041	0.960	0.489	-0.049	0.952	0.382	-0.045	0.956	0.396	-0.049	0.952	0.380	-0.045	0.956	0.396
Institutional share rate	0.004	1.004	0.601	0.004	1.004	0.634	0.003	1.003	0.698	0.004	1.004	0.636	0.003	1.003	0.696
State share rate	-0.372	0.689	0.775	-0.381	0.683	0.767	-0.391	0.676	0.760	-0.386	0.680	0.765	-0.392	0.676	0.760
Board share rate	0.428	1.534	0.319	0.405	1.499	0.340	0.398	1.489	0.361	0.406	1.501	0.337	0.398	1.488	0.362
Firm performance	-0.024	0.976	0.119	-0.024	0.976	0.104	-0.023	0.977	0.137	-0.024	0.976	0.107	-0.023	0.977	0.138
ln (Media attention)	-0.080	0.923	0.658	-0.055	0.947	0.785	-0.049	0.953	0.802	-0.054	0.947	0.785	-0.048	0.953	0.802
ln (Analyst attention)	0.131	1.140	0.024	0.119	1.126	0.060	0.118	1.125	0.063	0.118	1.125	0.061	0.118	1.125	0.064
Main effect															
Misconduct severity				**-0.293**	**0.746**	**0.088**	**-0.733**	**0.481**	**0.000**	**-0.274**	**0.760**	**0.100**	**-0.712**	**0.490**	**0.000**
Interactive effect															
Misconduct severity X Open-loop tie							**0.087**	**1.090**	**0.000**				**0.085**	**1.089**	**0.000**
Misconduct severity X Closed-loop tie										**-1.045**	**0.352**	**0.000**	**-0.843**	**0.431**	**0.000**
Log likelihood		-980.1			-978.0			-974.2			-977.9			-974.2	
Wald χ2		7492.7	0.000		7747.0	0.000		6302.5	0.000		7419.6	0.000		5283.5	0.000
N		5,090			5,090			5,090			5,090			5,090	

Note. Same with Table 3.

Table 6. Alternative mechanism test.

|	Model 16			Model 17			Model 18		
	Coef.	Hazard ratio	p	Coef.	Hazard ratio	p	Coef.	Hazard ratio	p
Executive level control									
Open-loop tie	0.006	1.006	0.889	0.005	1.005	0.909	0.005	1.005	0.904
Closed-loop tie	0.051	1.052	0.003	0.051	1.052	0.003	0.052	1.054	0.002
Gender	-0.082	0.921	0.716	-0.085	0.918	0.704	-0.084	0.919	0.708
Eigenvector centrality	0.743	2.102	0.144	0.830	2.293	0.093	0.815	2.258	0.095
Structural hole	0.846	2.330	0.000	0.851	2.343	0.000	0.862	2.369	0.000
Degree centrality	-0.024	0.976	0.135	-0.022	0.978	0.158	-0.025	0.975	0.117
ln(salary)	0.006	1.006	0.840	0.007	1.007	0.826	0.007	1.007	0.815
Age	-0.042	0.959	0.000	-0.042	0.959	0.000	-0.041	0.960	0.000
Overseas experience	0.275	1.317	0.520	0.276	1.318	0.519	0.269	1.309	0.529
Academic experience	0.143	1.154	0.658	0.131	1.140	0.687	0.142	1.152	0.662
Firm level control									
ln(Firm size)	0.175	1.191	0.050	0.175	1.191	0.051	0.191	1.210	0.033
TMT size	-0.073	0.930	0.058	-0.071	0.932	0.064	-0.072	0.930	0.058
Board size	0.019	1.020	0.741	0.020	1.020	0.736	0.008	1.008	0.891
Institutional share rate	-0.000	1.000	0.993	-0.000	1.000	0.991	0.000	1.000	0.998
State share rate	-0.832	0.435	0.225	-0.871	0.418	0.203	-0.849	0.428	0.216
Board share rate	-0.241	0.786	0.625	-0.243	0.784	0.621	-0.235	0.791	0.635
Firm performance	-0.013	0.987	0.002	-0.011	0.989	0.005	-0.014	0.987	0.002
ln (Media attention)	0.043	1.044	0.798	0.048	1.050	0.774	0.046	1.047	0.783
ln (Analyst attention)	0.069	1.072	0.391	0.061	1.063	0.450	0.068	1.070	0.400
Main effect									
ln (Misconduct severity)	-0.275	0.759	0.012	-0.112	0.894	0.104	-0.426	0.653	0.016
Interactive effect									
ln (Misconduct severity) X Degree centrality	0.005	1.005	0.034				0.008	1.008	0.003
ln (Misconduct severity) X Eigenvector centrality				-0.224	0.799	0.817	-1.170	0.311	0.538
Log likelihood		-1424.23			-1426.06			-1422.78	
Wald $\chi2$		256.09	0.000		252.44	0.000		258.99	0.000
N		5,090			5,090			5,090	

Note. Same with Table 3.
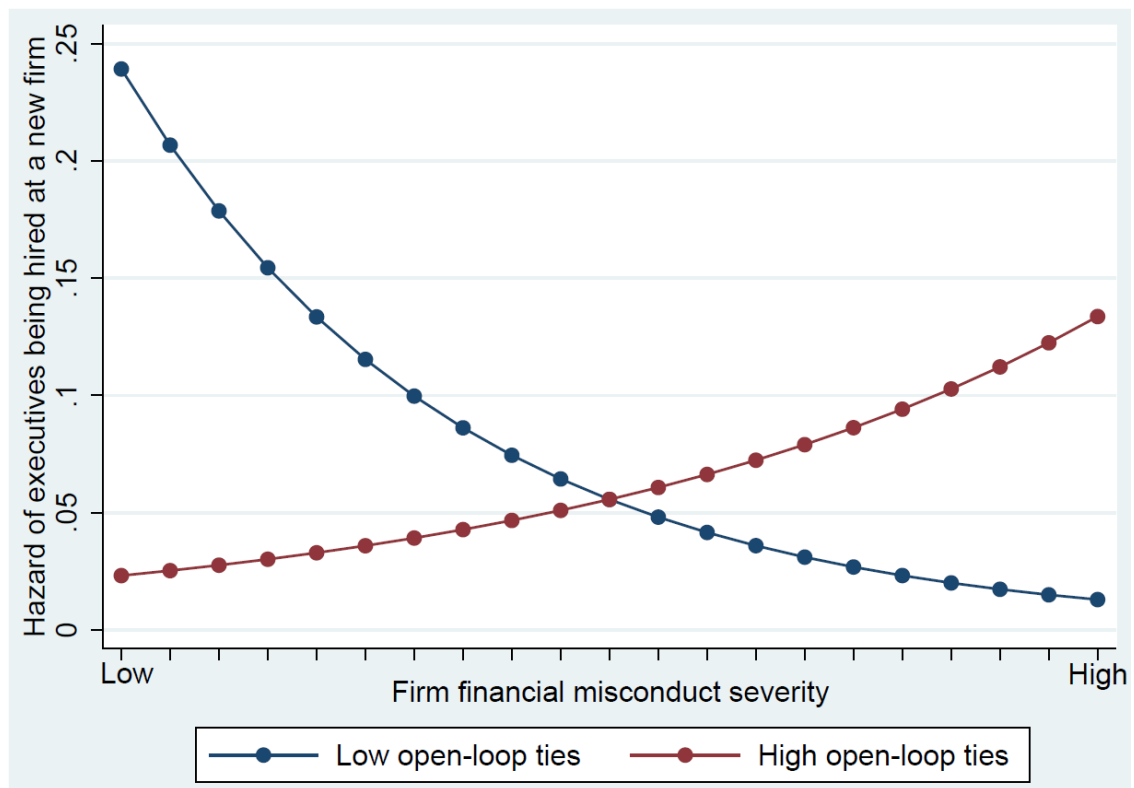
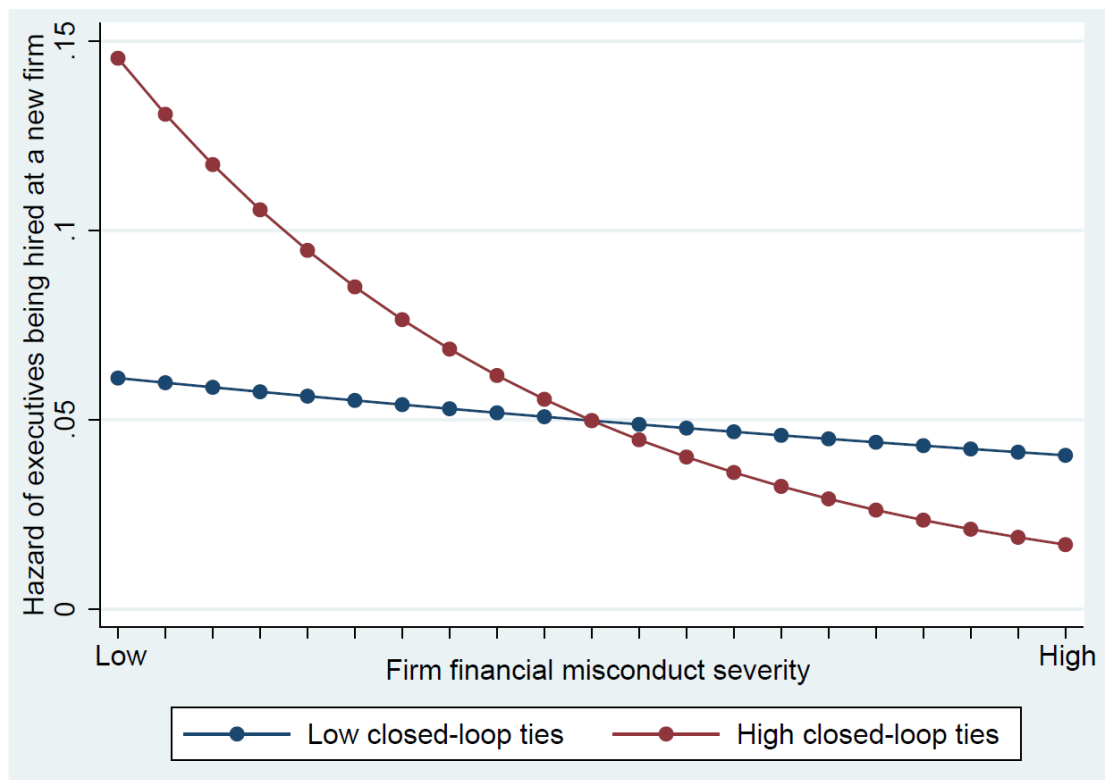Figure 5. The mitigating effect of open-loop ties on courtesy stigma.

Figure 6. The amplifying effect of closed-loop tie on courtesy stigma.