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The Moderating Roles of Follower Conscientiousness and Agreeableness on the Relationship Between Peer Transparency and Follower Transparency

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Abstract

Transparency is an underpinning of workplace ethics. However, most of the existing research has focused on the relationship between leader transparency and its consequences. Drawing on social and self-regulation theory research, we examine the antecedents of followers' transparency. Specifically, we propose that followers have higher levels of transparency when they are working with peers who have a high level of transparency. We further suggest that followers' conscientiousness and agreeableness moderate the relationship between peer transparency and followers' transparency. Using a time lag design, we provide support for the proposed theoretical model. We found that follower conscientiousness substitutes the social regulation effect (embodied in the relationship between peer and follower transparency), while follower agreeableness enhances this social regulation effect. Theoretical and practical implications of these findings are also discussed.

KEY WORDS: Transparency, peer pressure, conscientiousness, agreeableness, ethical behaviors

Corporate scandals, such as falsifying data, exaggerated revenue, and bribery, have stimulated scholars' and practitioners' interests in workplace ethical behavior (e.g., Andrews, Kacmar, and Kacmar, 2015; Groves and LaRocca, 2011; Thiel, Bagdasarov, Harkrider, Johnson, and Mumford, 2012). One common theme of these studies is that leaders act as role models and influence followers' ethical behaviors (e.g., Brown and Treviño, 2006; Schminke, Ambrose, and Neubaum, 2005; Vogelgesang, Leroy, and Avolio, 2013; Wimbush and Shepard, 1994). Despite widespread interests in leaders' behavior, followers also contribute to corporate ethical scandals by bending or breaking ethics rules (Bazerman & Tenbrunsel, 2011). In a recent corporate scandal, Volkswagen's employees managed to manipulate the emission test without the knowledge of their CEO, Martin Winterkorn (Ewing, 2015). Moreover, none of the employees involved in this scandal came forward to share about the mass deception. This calls for a better understanding of antecedents to followers' behaviors related to open and honest communication, which can expose and stop unethical behaviors.

An examination of antecedents to follower transparency – defined as the extent to which follower's "valuing and achieving openness and truthfulness" in their communication (Kernis, 2003, p. 15) – can be a key to enhance organizational ethical behaviors. Although previous research demonstrated the important roles of follower's

ethical behaviors on corporate governance and performance (Appelbaum, Iaconi, and Matousek, 2007; Dunlop and Lee, 2004), research has overlooked followers' transparency. However, a person's transparency – characterized as "sharing relevant information, being open to giving and receiving feedback, being forthcoming regarding motives and the reasoning behind decisions, and displaying alignment between words and actions" (Vogelgesang, 2008, p. 43) – represents the person's virtue (Murphy, Laczniak, and Wood, 2007; Palanski, Kahai, and Yammarino, 2011). It is also related to the person's credibility (Walker and Pagano, 2008) and behavioral integrity (Vogelgsang et al., 2013). Teams show higher behavioral integrity, inter-team trust, and performance when followers exhibit a higher level of transparency collectively (Palanski et al., 2011). Hence, follower transparency is an ethical behavior that enhances group's ethical standard. Drawing on self-regulation theory, we examine how self-regulation (embodied by follower conscientiousness and agreeableness) moderates the effects of social-regulation (embodied by peer transparency) on follower transparency.

Social-regulation is identified as the social processes used by groups to regulate individual behaviors (Bandura, 1991; Rogat and Linnenbrink-Garcia, 2011). Social regulation can encompass both *other-regulation* (the dominance of one group member in guiding or directing individual behaviors) and *shared regulation* (numerous group

members collectively organize and regulate individual behaviors) (Vauras, Iiskala, Kajamies, Kinnunen, and Lehtinen, 2003). Supporting the effect of social regulation on ethical behaviors, previous research found that individual employee is more ethical when they are working in group that emphasize on ethics (Victor and Cullen, 1987; Wimbush and Shepard, 1994). In this study, we focus on shared regulation and propose that peer transparency – measured as the average level of fellow followers' transparency behaviors – can exert peer pressure on the focal follower and force him/her to uphold a high level of transparency (Deshpande, 1996; Martin and Cullen, 2006; Wimbush and Shepard, 1994). The examination of peer transparency extends current research on social regulation by providing evidences that social regulation can occur with a relatively short period of interactions (3 months). We also showed that social regulation can take place among peers (fellow followers) without leader's interference. Moreover, given imitation is most direct for similar behaviors, followers feel strongest social regulation pressure for similar behaviors. As such, peer transparency is most relevant to our investigation of social-regulation related antecedents to follower transparency.

Conversely, self-regulation refers to internal individual processes that guide goal-directed activity across various contexts and over time (Bandura, 1991; Karoly, 1993; Muraven and Baumeister, 2000). This type of regulation modulates behavior,

thought, affect, and attention through automated skills and internal mechanisms. Supporting self-regulation, previous works found that personal traits enable a person to exercise more control over self, thus rendering them more likely to live up to social standards (Son Hing et al., 2007; Tang and Chen, 2008). In this study, we extend these works by examining how agreeableness and conscientiousness moderate the relationship between peer and follower transparency. These two "big five" personality traits (conscientiousness, agreeableness, neuroticism, openness to experience, and extraversion) are essential to our understanding of personality effects on follower transparency because they are recognized as the underlying dimensions of personality (Goldberg, 1990). The fact that they are relatively stable and cross-culturally generalizable (McCrae and Costa, 1997) also makes them ideal traits to be used in selection testing. Our study extends previous works on big five personality and ethical leadership (e.g., Kalshoven, Den Hartog, and De Hoogh, 2011; Walumbwa and Schaubroeck, 2009) by showing that these personality traits can affect not only leaders' ethical behaviors, but also on followers' ethical reactions (embodied in the level of follower transparency) under peer pressure (embodied in the level of peer transparency).

By doing so, this study provides three important contributions to both theory and practice. First, from a practical standpoint, understanding follower transparency can

enable the identification and potential reduction in corporate scandals. Our study makes a unique contribution to the domain of business ethics. This study underscores issues illustrated by Volkswagen's scandal: Volkswagen's leaders could not monitor all followers' behaviors. In extreme cases, followers may even engage in unethical acts to impress the supervisors (Hinrichs, 2007; Son Hing, Bobocel, Zanna, and McBride, 2007). Since followers with high transparency are forthcoming and authentic (Gardner, Avolio, Luthans, May, and Walumbwa, 2005), leaders and other relevant stakeholders can understand their actions and motives. As such, an organization can avoid corporate scandal of unethical behaviors by identifying and monitoring followers' behaviors. Despite the moral correctness and positive consequences of transparency (e.g., Palanski et al., 2011), followers may not be willing to engage in such behaviors, especially when the behaviors are not welcomed and come with personal risks (Miceli and Near, 1992). Instead, they exhibit a high level of transparency only when they face internal (i.e., self) or external (i.e., social) regulations (cf. Treviño, Weaver, and Reynolds, 2006). Drawing on self-regulation theory, this study provides a model that sheds light on ways for organizations to uphold a truthful workforces and expose unethical behaviors by building a workforce with high transparency.

Second, we extend previous ethical research by examining peer transparency and

followers' personality as antecedents to follower transparency. Theoretically, existing works on transparency has been focusing on the effect of leader's transparency on followers (e.g., Leroy, Palanski, and Simons, 2012; Norman, Avolio, and Luthans, 2010; Vogelgsang et al., 2013). Admittedly, leaders occupy a unique power position, which makes their ethical behaviors an important antecedent to followers' ethical behaviors. However, focusing only on the leader limits our ability to improve followers' transparency. First, followers work in a larger social context and interact more frequently with their coworkers than with their leader (Anderson and Martin, 1995). Thus, their behaviors are subjected to peer's influence. Second, followers may also engage in ethical behaviors, such as transparency, because of their personality (Allmon, Page, and Roberts, 2000). Therefore, it is essential to recognize interactive effects of both external social-regulation and internal self-regulation on follower transparency.

Third, from a theoretical standpoint, while self-regulation theory has been used to explain the effect of external social standard (Deshpande and Joseph, 2009), and internal moral standard on ethical behaviors (Zhong, Liljenquist, and Cain, 2009), limited research examines social- and self-regulation effects simultaneously. However, as both types of regulations exhaust the same type of limited resources (Muraven and Baumeister, 2000), focusing on enhancement and substitution effects of both social- and self-

regulations provides a more comprehensive understanding on self-regulation and ethical behaviors. In this study, we propose that follower agreeableness enhances the positive relationship between peer and follower transparency, while follower conscientiousness attenuates the positive relationship. As such, we suggest that social regulation is strongest when self-regulation is directed towards cohering to social norm. However, self-regulation substitutes the effect of social regulation when self-regulation is directed towards a global moral standard.

Figure 1 summarizes our proposed theoretical model. The remainder of this paper is organized as follows. First, we briefly review previous work followed by a discussion of the theoretical model and hypothesis development. We then test the model with a three-wave time lag survey in a classroom project setting. We conclude with a discussion of the results, implications of this research, and directions for future research.

Figure 1 about here

Literature Review and Theoretical Development

Follower Transparency as Ethical Behavior

The relationship between transparency and ethical behavior has been discussed numerous times in the management literature (Palanski et al., 2011; Vogelgesang et al.,

2013) with transparency often conceptualized as virtue (Murphy et al., 2007) at both individual and group levels. At both individual and team levels, transparency has been shown to increase behavioral integrity, trust, and performance (Vogelgesang et al., 2013; Palanski et al., 2011). While these previous studies demonstrated the importance of transparency, few studies have investigated the antecedents to follower transparency. As discussed above, while being transparent may come with personal risk (Miceli and Near, 1992; Treviño and Victor, 1992), such actions allow organization stakeholders to understand relevant information (Vogelgsang et al., 2013) as well as the authentic self of the followers (Gardner et al., 2005). This helps the organization to identify, monitor, and reduce unethical behaviors. Hence, we draw from research on social- and self-regulation (Mischel and Mischel, 1976; also see Deshpande, 1996; Koestner, Bernieri, and Zuckerman, 1992; Ryan and Deci, 2003; Wimbush and Shepard, 1994) and assert that maintaining transparency involves a regulatory process. In particular, we investigate the moderating roles of self-regulation (embodied in agreeableness and conscientiousness) on the effect of social-regulation (embodied in peer transparency) on follower transparency.

Before discussing the effects of regulations on follower transparency, it is important to distinguish between peer transparency and follower transparency. Measured as the average level of fellow followers' transparency, peer transparency represents a general

social context on whether other group members value and achieve openness and truthfulness in their relationships (Kernis, 2003). As such, it can be regarded as a normative environment, which "is an atmosphere in which team members inform one another with information and explanations about decisions which are made" (Palanski et al., 2011, p. 203). On the other hand, follower transparency is an individual's own behaviors of openness and truthfulness in communication. Follower transparency can be subjected to influence by a number of factors, including social context, leader, peers, and self.

Self-Regulation and Follower Transparency

Baumeister, Gailliot, DeWall, and Oaten (2006) stated that self-regulation is an adaptive ability that enables individuals to alter or override their responses in order to comply with personal and social standards or expectations. Transparency is an ethical behavior that requires self-regulation because openly sharing one's rationale and reasoning is associated with inherent risks (Palanski et. al, 2011; cf. Treviño et al., 2006). Although most studies of transparency focus on the positive outcomes of transparency, these behaviors can be associated with personal risk. In hypothesizing that transparency is necessary to demonstrate behavioral integrity, Palanski and colleagues (2011) warned that transparency could be harmful if that disclosed information is used against a person.

Personal disclosures can be risky for a follower even if there is a perceived level of trust with the leader or the group. Hence, self-regulation plays an important role in influencing follower's likelihood to be transparent.

Social Regulation in the form of Peer Transparency

Conforming to social normative pressure is one type of self-regulation (Baumeister et al., 2006). Transparency, which includes behaviors such as sharing of information, being authentic, and being truthful, is a social behavior (Eggert and Helm, 2003; Palanski et al., 2011; Vogelgesang et al., 2013). While being authentic is a general human value (Van Lange and Kuhlman, 1994), sharing information and representing one's true self can be sensitive and can upset other followers (e.g., Miceli and Near, 1992; Morrison, 2011; Treviño and Victor, 1992). As such, peer transparency can influence follower transparency by sending signals to the follower on the acceptance and expectation of transparency in the workgroup (Rosenhan, Moore, and Underwood, 1976). Moreover, peer with a high level of transparency exerts peer pressure on the follower. In order to get along with peers, followers learn and model the level of peer transparency. Treviño and colleagues (2006) asserted that normative environment can impact a person's likelihood to engage in risky ethical behaviors as it changes the potential consequence. Modeling peers' level of transparency can minimize risk of non-acceptance by group members.

Although there is no existing evidence on the relationship between peer and follower transparency, previous works demonstrated that individuals are more ethical when they are working in a work environment that emphasize on upholding a high ethical standard (E.g., Deshpande, 1996; Forte, 2004; Wimbush and Shepard, 1994). Based on this discussion, we hypothesize:

Hypothesis 1: Peer transparency is positively related to follower transparency.

Differential Views of Transparency by Conscientious and Agreeable Followers

Despite the importance of social regulation, prior works suggested that self-regulation also affects the tendency to which individuals uphold a high level of ethical behaviors, including transparency (Baumeister, DeWall, Ciarocco, and Twenge, 2005). Previous studies demonstrated that personality is one of the factors that influences people's self-regulation (Koestner et al., 1992; Ryan and Deci, 2003). Among different personality dimensions, Kalshoven and colleagues (2011) suggested that conscientiousness and agreeableness are key factors that affect one's self-regulation on ethical behaviors. Hence, we focus on the moderating roles of conscientiousness and agreeableness in this study.

Specifically, conscientiousness and agreeableness shape people's view on transparency. People with high levels of conscientiousness are characterized as proactive

and inhibitive (Costa, McCrae, and Dye, 1991). They tend to demonstrate higher self-regulation (Wallace and Chen, 2006), enabling them to recognize their personal behaviors and to stay aligned with moral obligations and duties to which they are committed (Costa and McCrae, 1992; Kalshoven et al., 2011). Such characteristics affect transparency in two ways. First, transparency requires followers to disclose information that can be sensitive or detrimental to one's self (Murphy et al., 2007). In other words, followers who exhibit a high level of transparency need to take risks that may hurt their personal reputation. At the same time, being honest and presenting one's "true" self is one of the treasured values of human beings (Rogers, 1964; Van Lange and Kuhlman, 1994). Since conscientious employees are more proactive and dutiful (Costa and McCrae, 1992), they are more likely to own a personal responsibility to take risks and be transparent. Second, conscientious followers are more likely to adhere to codes of conduct, protocol, rules and regulations (Costa et al., 1991; Kalshoven et al., 2011). As such, conscientious followers are more likely to clarify their actions so that others can understand and monitor their actions. As a result, conscientious followers see sharing relevant information and being transparent as part of their duty (Mayer, Kuenzi, Greenbaum, Bardes, and Salvador, 2009).

Agreeableness is defined as "the tendency to attribute benevolent intent to others"

(Costa et al., 1991, p.888). Agreeable individuals focus on getting along with others (Costa and McCrae, 1992). To avoid upsetting interpersonal relationships, agreeable individuals conform to group norms and tend to support the status quo (Costa et al., 1991). Given that group members appreciate the authenticity of their fellow followers and sharing relevant information, they are more likely to trust a fellow follower who is transparent (Palanski et al., 2011). At the same time, sharing relevant information can enhance group performance (Mesmer-Magnus and DeChurch, 2009). Hence, being transparent is a generally acceptable behavior in the group. As such, agreeable followers, who value their interpersonal relationships and tend to adhere to group norms, are more likely to view transparency as part of group behaviors.

Differentiated Moderating Role of Conscientiousness and Agreeableness

Our above discussions suggest that while both conscientiousness and agreeable followers regulate their transparent behaviors, they do so with different motives: Conscientious followers engage in transparency because of moral obligation, even if it may upset other group members. Agreeable followers engage in transparency to get along with their group members. Hence, conscientious and agreeable followers react differentially when they are working with peers with different levels of transparency.

Conscientious followers act authentically and share information because they

believe transparency is a basic human value. In order to fulfill their moral obligation, their behaviors are less likely to be subjected to peer influence (Kalshoven et al., 2011; Salgado, 2002). Since self-regulation can be depleting (Muraven and Baumeister, 2000), followers conform to the *minimum standard* of *both* social (peer pressure) *and* self (conscientiousness) regulation (Baumeister et al., 2005). Thus, conscientious followers working with peers with high transparency exhibit a high level of transparency to fulfill their personal and social standards. On the other hand, when followers with high conscientiousness works with peers with a low level of transparency, they face opposite regulation pressure: While they face peer pressure that discourages them to be transparent, they have an inner desire to fulfill their moral obligation and be transparent (cf. Mayer et al., 2009; LePine and Van Dyne, 2001). To fulfill the minimum standard of personal moral obligation, conscientious followers resist negative influence from peers with low transparency. In sum, conscientiousness substitutes the effect of peer transparency and attenuates the relationship between peer transparency and follower transparency.

Conversely, low conscientious followers do not have an inner desire to adhere to the moral obligation of being truthful (Sheppard and Lewicki, 1987; Mayer et al., 2009). Since they do not have a basic impulsive tendency to be transparent, their actions depend on various standards and ideals. It increases variance in their transparent behaviors. As a

low level of peer transparency signals that sharing information and being authentic may not be acceptable in the workgroup, low conscientious followers are less likely to take the risk of being transparent. On the contrary, a high level of peer transparency serves as a type of social-regulation – it indicates that peer transparency is not only accepted, but also expected in the workgroup. In order to fulfill their group duties, low conscientious followers are likely to be transparent even though they may not have a moral obligation to do so. In sum, we expect that conscientiousness substitutes the effects of peer transparency on follower transparency. Formally, the following hypothesis is proposed:

Hypothesis 2: Follower conscientiousness moderates the positive relationship between peer transparency and follower transparency such that the positive relationship is weaker when follower conscientiousness is high.

Agreeable followers see transparency as a type of group behavior. Agreeable followers are cooperative with motive to get along with their peers (LePine and Van Dyne, 2001; Graziano, Habashi, Sheese, and Tobin, 2007). As such, they regulate their behaviors to fit group norms (Costa and McCrae, 1992). Given the sensitive and risky nature of being authentic and sharing information (cf. Morrison, 2011), the transparent behaviors of agreeable followers depends on peers' acceptance of such behaviors. When they are working in a group with low peer transparency, they read it as a cue that

transparency is not welcomed. To get along with their low-transparent peers, agreeable followers are less likely to be transparent. On the contrary, high peer transparency indicates that the group values truthful behaviors to an extent that those behaviors are considered as normative. In order to get along with their peers and maintaining status quo (Costa et al., 1991; LePine and Van Dyne, 2001), agreeable followers are motivated to be transparent when they are working in a group with high levels of peer transparency. Hence, the relationship between peer and follower transparency is stronger when the follower is agreeable.

On the contrary, low agreeable followers are less concerned with the group norm. Since they are less cooperative (LePine and Van Dyne, 2001), they engage in transparency out of their own intention and perceived moral obligation. In other words, they are less likely to be influenced by the level of peer transparency. In sum, we hypothesize that follower agreeableness strengthens the relationship between peer and follower transparency. These arguments are summarized below:

Hypothesis 3: Follower agreeableness moderates the positive relationship between peer transparency and follower transparency such that the positive relationship is stronger when follower agreeableness is high.

Method

Participants and Procedure

The sample for the study consisted of 120 undergraduate students enrolled in a leadership and ethics course in a public research university on the West Coast of the United States. Participants were recruited in-class to participate in this three-wave data collection in exchange for a total of 75 extra credit points (7.5 %) for the course. At the beginning of the semester, participants were randomly assigned to 16 teams to work on a major semi-structured class project. Each team consisted of one leader and five to six members. Over the course of 16 weeks, the teams were asked to analyze a business case and produce a presentation and a written report based on their analyses. To stimulate actual team experience, team leaders were given power (in the form of extra credit recommendation) to manage their team – they were responsible for scheduling and conducting team meetings, assessing follower's performance, and communicating with the class instructor. All team members were encouraged to be involved in the teamwork.

To provide a stronger test on the causal relationship and to avoid common source bias, data were collected using a three-wave time lagged multi-source design. Followers reported on the personality survey at the beginning of the semester (Week 1) using an online survey. Leaders assessed peer transparency and follower transparency on Week 8 (about halfway through the 16-week project) and Week 16 (at the end of the project)

using paper-and-pencil surveys. After matching responses from the three waves of data collection, there were 91 usable follower data from 16 teams, resulting in a response rate of 87.5%. Fifty-five percent of the follower participants were female with the majority of them being junior year undergraduate students. The average group size was 6.26. Among the team leaders, 57% of them were female and the majority of them were in their senior or junior year.

Measures

Personality. Followers reported on their personality (conscientiousness: 9-item, α = .79, sample item = "does a thorough job"; agreeableness: 9-item, α = .72, sample item = "likes to cooperate with others"; extraversion: 8-item, α = .84, sample item = "is talkative"; neuroticism: 8-item, α = .82, sample item = "worries a lot"; and openness to experience: 10-item, α = .67, sample item = "has an active imagination") using the John and Srivastava's (1999) Big Five Inventory on Week 1. Respondents were asked to rate their extent of agreement with each statement using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree).

Peer Transparency. Team leaders rated all of their followers' transparency using a five-item scale developed by Walumbwa, Avolio, Gardner, Wernsing, and Peterson (2008) on Week 8 (8 weeks before rating of follower transparency). They assessed to what extent

each follower engaged in transparent behaviors using a five-point Likert scale (1 = strong disagree to 5 = strongly agree). An example item was, "This follower says exactly what he/she means." We calculated the peer transparency using Parkes' (1986) approach. Specifically, we averaged the leaders' report of all followers' transparency with the scores of the focal followers excluded. This average score was then assigned as the peer transparency of this focal follower. Thus, the peer transparency of focal follower (A) working in a workgroup with six members (A, B, C, D, E, and F) was calculated as the average leader's rating of other followers' (B, C, D, E, and F) transparency. Compared to an aggregation to group approach (Palanski et al., 2011), this approach allows us to better conceptualize the influence of other followers. The exclusion of focal follower's transparency in the peer transparency measures also allows us to omit the influence of stable dispositional differences and reduce statistical overlap of peer and follower transparency. This approach also allows us to examine the proposed model in the within-group (i.e., individual) level, which matches our level of model conceptualization (i.e., each follower received a different level of peer influence).

Follower Transparency. Team leaders rated their followers' transparency using the same five-item transparency scale on Week 16. We used the leader's rating of the focal follower transparency (i.e., Follower A) in this measure. Reliability for this scale was .92.

Control Variables. Even though we randomly assigned followers into teams and collected the studied variables in three time waves, it is possible that the results are caused by other confounding variables. We controlled for follower age, gender, and education to minimize demographic difference on followers' tendency to be transparent (e.g., Woolley, Caza, and Levy, 2010). These demographic variables were collected at the end of the followers' personality survey completed during Week 1. Furthermore, since leaders' behaviors can influence follower transparency (e.g., Brown and Treviño, 2006; Schminke et al., 2005), we controlled for leader age, gender, and education. Such covariates also help us to reduce relational demography effect – i.e., leaders rate followers who are similar to them more favorably (Tsui, Porter, and Egan, 2002). Furthermore, we controlled for group size in the analyses since followers interact more with each of their peers. As such, peer transparency may have a stronger effect on follower transparency when group size is small.

Analytical Strategy

While the proposed model is conceptualized and measured in within-group (i.e., individual) level of analysis, followers are nested within groups and worked under the same leader. To control for the nested data structure, we analyzed the data with multilevel modeling using Mplus 7.0. The use of multi-level modeling also helped us to separate the

group effect, such as leaders' tendency to rate all followers' transparency similarly, from the tested relationship between peer and follower transparency. To test the proposed interaction, we followed the procedures recommended by Aiken and West (1991) and Hofmann and Gavin (1998). We grand-mean-centered the independent variables and created two interaction terms by multiplying peer transparency and conscientiousness and agreeableness, respectively.

RESULTS

Mean, standard deviations, and inter-correlations of the variables are presented in Table 1. While conscientiousness was positively related to follower transparency (r = .22, p < .01), agreeableness and follower transparency were not related (r = 0.01, ns). This is consistent with our argument that conscientious followers are more transparent regardless of the social norms, while social norms determine whether agreeable followers may (or may not) engage in transparent behaviors.

Table 1 about here

Results of the test of the theoretical model are shown in Table 2. Results showed that peer transparency was positively related to follower transparency (γ = .58, p < .01). Thus, Hypothesis 1 was supported. Results also indicated that follower conscientiousness

negatively moderates the relationship between peer and follower transparency (γ = -.40, p < .01) while follower agreeableness positively moderates the relationship between peer and follower transparency (γ = .34, p < .01). Figure 2 illustrates the interaction patterns. Supporting the substitution role of conscientiousness, Figure 2a shows that the relationship between peer and follower transparency is weaker when follower conscientiousness is high (simple slope = .35, p <.01) than when it is low (simple slope = .81, p <.01). Supporting the enhancement role of agreeableness, Figure 2b shows that the relationship between peer and follower transparency is stronger when follower agreeableness is high (simple slope = .74, p <.01) than when it is low (simple slope = .41, p < .01). Therefore, both Hypotheses 2 and 3 were supported.

Table 2 and Figure 2 about here

To ensure the robustness of the findings, we conducted three sets of supplementary analyses. First, since some studies suggested that agreeableness and conscientiousness are correlated with extraversion (e.g., Eysenck, 1968; Tellegen, 1985), we conducted supplementary analyses by including other three Big Five personality factors (extraversion, openness to experience, neuroticism) and their interaction terms with peer transparency. As shown in Table 3, results of these supplementary analyses were

consistent with our main results shown in Table 2. Results showed that peer transparency was positively related to follower transparency (γ = .59, p < .01); follower conscientiousness negatively moderates the relationship between peer and follower transparency (γ = -.39, p < .01); and follower agreeableness positively moderates the relationship between peer and follower transparency (γ = .42, p < .01). Furthermore, the relationship between peer and follower transparency is weaker when follower conscientiousness is high (simple slope = .37, p <.01) than when it is low (simple slope = .81, p <.01). Also, the relationship between peer and follower transparency is stronger when follower agreeableness is high (simple slope = .80, p <.01) than when it is low (simple slope = .38, p < .01).

Table 3 about here

We conducted a set of robustness analyses to check the results without any control variables. Results were consistent with the results shown on Tables 2 and 3 and are available upon request. Finally, the main analyses were conducted in multilevel modeling because of the nested nature of the data (i.e., followers are nested within group and the leader rates all followers' transparency). To check the results' robustness, we conducted supplementary analyses with OLS regression. Results were consistent with the multilevel

modeling and are available on request. In sum, results provided support our theoretical model.

DISCUSSION

The primary objective of this paper was to provide a meaningful contribution to the scant literature on the antecedents to follower transparency by examining the moderating effect of conscientiousness and agreeableness on the relationship between peer and follower transparency. Our results showed that peer transparency is positively related to follower transparency. We also found strong moderating effects of conscientiousness and agreeableness on the relationship between peer transparency and follower transparency. Results indicate that the relationship between peer transparency and follower transparency is weaker when followers have high conscientiousness. Conversely, we found that the positive relationship between peer transparency and follower transparency is stronger when follower agreeableness is high.

Theoretical Implications

This study contributes to the discipline of behavioral ethics in three distinct ways. First, drawing on self-regulation theory, this research contributes to reducing unethical behaviors by studying followers' trasparent behaviors. In this study, we conceptualized follower transparency as ethical behavior involving a self-regulation process. Kelley

(2008) proposed that followers could be frontline protectors against unethical leaders and organizational dysfunction. They are in a position to make ethical judgments, take stands against unethical behaviors, and define organizational integrity. In this study, we showed that the level of peer transparency determines the extent to which a follower takes risks in being truthful, exposing problems, or blatant misconduct. By demonstrating the influence of peers on follower transparency, this research contributes to the growing stream of research on transparency. Our study extends the work by Palanski and colleagues (2011) that demonstrated the importance of peer transparency by examining how peer transparency acts as a form of social regulation and influences individual follower's transparency. In this study, social regulation helps explain the effects of peers on a follower's decision to self-disclose after a short period of interactions (3-months).

Second, this study extends research on the effects of personality traits on ethical behaviors by demonstrating the importance of both social (embodied in peer transparency) and self- (embodied in conscientiousness and agreeableness) regulation. While much of existing research (Walumbwa and Shaubroeck, 2009; Kalshoven et al., 2011) suggested that both conscientiousness and agreeableness are "good" personality traits – conscientious and agreeable employees are better team players with better performance and higher ethical behaviors (e.g., Barrick and Mount, 1991; Kalshoven et al., 2011). Our

results showed that conscientiousness substitutes the positive effects of peer transparency and agreeable followers are less likely to be transparent when they are working with low transparency peers. More broadly, our study adds to the dark side of "good" personality (e.g., Boyce, Wood, and Brown, 2010) by demonstrating the importance of context in determining the effects of "good" personality on transparency and other positive outcomes.

Third, from a theoretical standpoint, by simultaneously examining the effect of social (embodied in peer transparency) and self-regulation (embodied in followers' personality), our findings add to the self-regulation theory, which suggests that self-regulation to conform social- and self-standards relies on limited resources (Muraven and Baumeister, 2000). This study contributes to the discussion of personality and self-regulation (Baumeister et al., 2006). By proposing conscientious followers, whose regulation directed to fulfilling global moral standard, engage in transparency regardless of the level of peer transparency, our results suggested that self-regulation substitutes the effect of social-regulation when self-regulation is directed towards a general moral standard. However, self-regulation enhances the effect of social-regulation when self-regulation is directed towards social compliance. This can be seen in the moderating role of agreeableness, where agreeable followers, whose regulation directed to local

social norm, engage in transparency only when their peers do. Our research suggests the importance of examining the direction of self-regulation when researchers investigate social- and self-regulation simultaneously.

Practical Implications

Our research answers the question of to whom and under what situation will followers be open, authentic, and share information. Our results demonstrate the importance of peer transparency as a form of peer pressure. Hence, organizations should develop an organizational culture that encourages employees to be open and honest. The construction of policies and procedures that require teams to be transparent might also be useful. An example might be the law enforcement context, where the culture of silence inhibits individual officers to voice unfairness or to be open. Law enforcement might also benefit from the application of peer transparency in its policies and culture.

Unfortunately, in today's workplace, groups are typically organized for the purposes of simplistic exchanges of information, clarification, and basic communication (Hurme, Merenluoto, and Jarvela, 2005). As such, a low-level of social regulation can occur in high stakes situations due to a lack of understanding of the importance of group configuration. Such lack of social regulation is particularly common at the lower levels of organizational structure. Hence, organizations need to rely on personality that can

moderate the effect of peer transparency. For example, it would be useful to carefully match the personality traits of team members. Although most organizations test job applicants for personality, they seldom take personality into consideration when configuring teams. Having low peer transparency teams in high stakes jobs, particularly that involve unethical decision-making (i.e. the situation at Volkswagen), might be avoided if more team members were higher in conscientiousness or low in agreeableness.

Limitations and Future Research

While this study provides several theoretical and practical contributions, there are some limitations that should be addressed. In spite of the strengths of this research, such as the use of three waves time lag designs with multiple reporting sources, the data collected does not allow us to fully establish the causal arguments hypothesized. Furthermore, individual traits, in general, are difficult to establish causal relationships (Albert, Reynolds, and Turan, 2015). However, given the nature of this study is to examine the moderating effects of personality on the relationship between peer and follower transparency, and common method bias does not threaten the validity of interaction effects (Siemsen, Roth, and Oliveira, 2010), we expect that our findings inform us on the causal order of the relationships. We encourage future research to replicate our study with experiments manipulating key variables to establish the causal

relationship proposed in our model.

Second, this study measured both peer and follower transparency with leaders' subjective rating. Despite our efforts in minimizing the statistical overlap, including excluding the leader's rating on the focal followers in the calculation of peer transparency, measuring peer and follower transparency in different times (8-week lag), separating the group level covariance with the use of multi-level modeling, and controlling for leaders' demographic information, this design may inflate the relationship between peer and follower transparency. While self-rating of transparency is not encouraged because it may be subject to social desirability bias (Randall and Fernandes, 1991), we call for future research to measure objective transparency behaviors by observing and coding followers' behaviors using non-intrusive design. Research suggests that there are a variety of behaviors that comprise ethical behavior (e.g., Stead, Worrell, and Stead, 1990) including other measures, such as ego strength and locus of control, could help future researchers to gain a better understanding of follower transparency.

Third, the sample was collected from undergraduate students, which may not generalize to other populations. However, it is important to note that the student sample was comprised of mostly working adults, thus increasing similarity to the general working population. Furthermore, the project was very similar to a typical workplace

project, thus similar results could be expected in a workplace setting. Future research could replicate this study using a sample of employees in workplace groups to extend the findings of this research. Future research should continue to examine antecedents to follower transparency. There are multitudes of follower transparency that should be examined to provide a clearer understanding of this behavior. As there are both costs and benefits associated with transparency, future research should aim to measure these and examine the point in which costs outweigh the benefits.

The competitive nature of business places pressure on both leaders and followers to produce optimal results. Often times, this pressure leads to engaging in unethical behavior to achieve a desired financial performance. The multi-faceted nature of unethical behavior requires researchers to examine all aspects that influence unethical behavior. In particular, more research is needed to fully understand the critical role that followers play in corporate ethics.

References

Aiken, L. S., and West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.

Albert, L. S., Reynolds, S. J., and Turan, B. (2015). Turning inward or focusing out? Navigating theories of interpersonal and ethical cognitions to understand ethical decision-making. *Journal of Business Ethics*, 130, 1-18.

Allmon, D. E., Page, D., & Roberts, R. (2000). Detecting, understanding, and controlling for cheating on tests. *Research in Higher Education*, 32, 725-736.

Anderson, C. M., & Martin, M. M. (1995). Why employees speak to coworkers and bosses: Motives, gender, and organizational satisfaction. *Journal of Business Communication*, 32, 249-265.

Andrews, M. C., Kacmar, K. M., and Kacmar, C. (2015). The interactive effects of behavioral integrity and procedural justice on employee job tension. *Journal of Business Ethics*, 126, 1–9.

Appelbaum, S. H., Iaconi, G. D., and Matousek, A. (2007). Positive and negative deviant workplace behaviors: Causes, impacts, and solutions. *Corporate Governance*, *7*, 586–598.

Barrick, M. R., and Mount, M. K. (1991). The big five personality dimensions and job

performance: A meta-analysis. *Personnel Psychology*. *44*, 1-26.

Baumeister, R. F., DeWall, C. N., Ciarocco, N. J., and Twenge, J. M. (2005). Social exclusion impairs self-regulation. *Journal of Personality and Social Psychology*, *88*, 589–604.

Baumeister, R. F., Gailliot, M., DeWall, C. N., & Oaten, M. (2006). Self-Regulation and personality: How interventions increase regulatory success, and how depletion moderates the effects of traits on behavior. *Journal of Personality*, 74, 1773-1802.

Bazerman, M. H., and Tenbrunsel, A. E. (2011). Ethical breakdowns. *Harvard Business Review*, April 2011. Retrived from: https://hbr.org/2011/04/ethical-breakdowns .

Boyce, C. J., Wood, A. M., and Brown, G. D. A. (2010). The dark side of conscientiousness: Conscientious people experience greater drops in life satisfaction following unemployment. *Journal of Research in Personality*, *44*, 535–539.

Brown, M., and Treviño, L. (2006). Ethical leadership: A review and future directions. *The Leadership Quarterly*, *17*, 595–616.

Costa, P. T., and McCrae, R. R. (1992). Four ways five factors are basic. *Personality and individual differences*, *13*, 653-665.

Costa, P. T., McCrae, R. R., and Dye, D. A. (1991). Facet scales for agreeableness and conscientiousness: a revision of tshe NEO personality inventory. *Personality and*

Individual Differences, *12*, 887-898.

Deshpande, S. P. (1996). Ethical climate and the link between success and ethical behavior: An empirical investigation of a non-profit organization. *Journal of Business Ethics*, *15*, 315–320.

Deshpande, S. P., & Joseph, J. (2009). Impact of emotional intelligence, ethical climate, and behavior of peers on ethical behavior of nurses. *Journal of Business Ethics*, 85, 403-410.

Dunlop, P. D., and Lee, K. (2004). Workplace deviance, organizational citizenship behavior, and business unit performance: The bad apples do spoil the whole barrel. *Journal of Organizational Behavior*, *25*, 67–80.

Eggert, A., and Helm, S. (2003). Exploring the impact of relationship transparency on business relationships. *Industrial Marketing Management*, *32*, 101–108.

Ewing, J. (2015, September 23). Volkswagen CEO Martin Winterkorn resigns amid emissions scandal. *New York Times*. Retrieved from: http://www.nytimes.com/2015/09/24/business/international/volkswagen-chief-martin-winterkorn-resigns-amid-emissions-scandal.html?action=click&contentCollection=International%20Business&region=Footer&module=WhatsNext&version=WhatsNext&contentID=WhatsNext&moduleDetail=undefined&pgtype=Multimedia

Eysenck, H. J. (1968). *Eysenck personality inventory*. San Diego: Educational and Industrial Testing Service.

Forte, A. (2004). Business ethics: A study of the moral reasoning of selected business managers and the influence of organizational ethical climate. *Journal of Business Ethics, 51*, 167-173.

Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., & Walumbwa, F. (2005). "Can you see the real me?" A self-based model of authentic leader and follower development. *The Leadership Quarterly*, 16, 343-372.

Goldberg, L. R. (1990). An alternative "description of personality": The Big-Five factor structure. *Journal of Personality and Social Psychology*, *59*, 1216–1229.

Graziano, W. G., Habashi, M. M., Sheese, B. E., and Tobin, R. M. (2007). Agreeableness, empathy, and helping: A person× situation perspective. *Journal of Personality and Social Psychology*, 93, 583.

Groves, K. S., and LaRocca, M. A. (2011). An Empirical Study of Leader Ethical Values, Transformational and Transactional Leadership, and Follower Attitudes Toward Corporate Social Responsibility. *Journal of Business Ethics*, *103*, 511–528.

Hinrichs, K. T. (2007). Follower propensity to commit crimes of obedience: The role of leadership beliefs. *Journal of Leadership and Organizational Studies*. *14*, 69-76.

Hofmann, D. A., and Gavin, M. B. (1998). Centering decisions in hierarchical linear models: Implications for research in organizations. *Journal of Management*, 24, 623-641.

Hurme, T.-R., Merenluoto, K., and Järvelä, S. (2005). Socially shared metacognition of pre-service primary teachers in a computer-supported mathematics course and their feelings of task difficulty: A case study. *Educational Research and Evaluation*. *15*, 503-524.

John, O. P., and Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin and O. P. John (Eds.), *Handbook of Personality: Theory and Research*. New York, NY. Guildford Press.

Kalshoven, K., Den Hartog, D. N., and De Hoogh, A. H. B. (2011). Ethical Leader Behavior and Big Five Factors of Personality. *Journal of Business Ethics*, *100*, 349–366.

Karoly, P. (1993). Mechanisms of self-regulation: A systems view. *Annual review of psychology*, *44*, 23-52.

Kelley, R. E. (2008). Rethinking followership. In R. E. Riggio, I.Chaleff, and J. Lipman-Blumen (Eds.), *The art of followership* (pp. 5-16). San Francisco, CA: Josey-Bass.

Kernis, M. H. (2003). Toward a conceptualization of optimal self-esteem. *Psychological Inquiry*, *14*, 1–26.

Koestner, R., Bernieri, F., and Zuckerman, M. (1992). Self-regulation and consistency between attitudes, traits, and behaviors. *Personality and Social Psychology Bulletin, 18*, 52–59.

LePine, J. A., and Van Dyne, L. (2001). Voice and cooperative behavior as contrasting forms of contextual performance: Evidence of differential relationships with Big Five personality characteristics and cognitive ability. *Journal of Applied Psychology*, *86*, 326–336.

Leroy, H., Palanski, M. E., & Simons, T. (2012). Authentic leadership and behavioral integrity as drivers of follower commitment and performance. *Journal of Business Ethics*, 107, 255-264.

Martin, K. D., and Cullen, J. B. (2006). Continuities and extensions of ethical climate theory: A meta-analytic review. *Journal of Business Ethics, 69*, 175–194.

Mayer, D. M., Kuenzi, M., Greenbaum, R., Bardes, M., and Salvador, R. B. (2009). How low does ethical leadership flow? Test of a trickle-down model. *Organizational Behavior and Human Decision Processes, 108*, 1–13.

McCrae, R. R., and Costa, P. T. (1997). Personality trait structure as a human universal.

The American Psychologist, *52*, 509–16.

Mesmer-Magnus, J. R., and DeChurch, L. A. (2009). Information sharing and team performance: a meta-analysis. *Journal of Applied Psychology*, *94*, 535.

Miceli, M. P., & Near, J. P. (1992). *Blowing the whistle: The organizational and legal implications for companies and employees*. New York: Lexington Books.

Mischel, W., and Mischel, H. N. (1976). A cognitive social-learning approach to morality and self-regulation. In T. Lickona (Ed.), *Moral development and behavior: Theory, research, and social issues* (pp. 84-107). Austin, TX: Holt, Rinehart and Winston.

Morrison, E. W. (2011). Employee voice behavior: Integration and directions for future research. *The Academy of Management Annals*, *5*, 373-412.

Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle? *Psychological Bulletin*, 126, 247-259.

Murphy, P. E., Laczniak, G. R., and Wood, G. (2007). An ethical basis for relationship marketing: a virtue ethics perspective. *European Journal of Marketing*, *41*, 37–57.

Norman, S. M., Avolio, B. J., & Luthans, F. (2010). The impact of positivity and transparency on trust in leaders and their perceived effectiveness. *The Leadership Quarterly*, 21, 350-364.

Palanski, M. E., Kahai, S. S., and Yammarino, F. J. (2011). Team virtues and performance: An examination of transparency, behavioral integrity, and trust. *Journal of Business Ethics, 99*, 201–216.

Parkes, K. R. (1986). Coping in stressful episodes: the role of individual differences, environmental factors, and situational characteristics. *Journal of Personality and Social Psychology, 51*, 1277–1292.

Randall, D. M., & Fernandes, M. F. (1991). The social desirability response bias in ethics research. *Journal of Business Ethics*, 10, 805-817.

Rogat, T. K., & Linnenbrink-Garcia, L. (2011). Socially shared regulation in collaborative groups: An analysis of the interplay between quality of social regulation and group processes. *Cognition and Instruction*, *29*, 375-415.

Rogers, C. R. (1964). Toward a modern approach to values: The valuing process in the mature person. *The Journal of Abnormal and Social Psychology*, 68, 160-167.

Rosenhan, D. L., Moore, B. S., and Underwood, B. (1976). The social psychology of moral behavior. In T. Lickona (Ed.) *Moral Development and Behavior: Theory, Research and Social Issues* (pp. 241-252). New York: Holt McDougal.

Ryan, R. M., and Deci, E. L. (2003). On assimilating identities to the self: A self-determination theory perspective on internalization and integrity within cultures.

In M. R. Leary and J. P. Tangney (Eds.), *Handbook on self & identity* (pp. 253–272). New York, NY: Guilford Press.

Salgado, J. F. (2002). The Big Five personality dimensions and counterproductive behaviors. *International Journal of Selection and Assessment, 10,* 117–125.

Schminke, M., Ambrose, M. L., and Neubaum, D. O. (2005). The effect of leader moral development on ethical climate and employee attitudes. *Organizational Behavior and Human Decision Processes, 97,* 135–151.

Sheppard, B. H., & Lewicki, R. J. (1987). Toward general principles of managerial fairness. *Social Justice Research,* 1, 161-176.

Siemsen, E., Roth, A., and Oliveira, P. (2010). Common method bias in regression models with linear, quadratic, and interaction effects.*Organizational research methods, 13*, 456-476.

Son Hing, L. S., Bobocel, D. R., Zanna, M. P., and McBride, M. V. (2007). Authoritarian dynamics and unethical decision making: High social dominance orientation leaders and high right-wing authoritarianism followers. *Journal of Personality and Social Psychology, 92,* 67–81.

Stead, W. E., Worrell, D. L., and Stead, J. G. (1990). An integrative model for understanding and managing ethical behavior in business organizations. *Journal of*

Business Ethics, *9*, 233-242.

Tang, T. L. P., and Chen, Y. J. (2008). Intelligence vs. wisdom: The love of money, machiavellianism, and unethical behavior across college major and gender. *Journal of Business Ethics*, *82*, 1–26.

Tellegen, A. (1985). Structures of mood and personality and their relevance to assessing anxiety, with an emphasis on self-report. In T. A. Hussain and J. D. Maser (Eds.) , *Anxiety and the anxiety disorders* (pp. 681–706). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Thiel, C. E., Bagdasarov, Z., Harkrider, L., Johnson, J. F., and Mumford, M. D. (2012). Leader Ethical Decision-Making in Organizations: Strategies for Sensemaking. *Journal of Business Ethics*, *107*, 49–64.

Treviño, L. K., & Victor, B. (1992). Peer reporting of unethical behavior: A social context perspective. *Academy of Management Journal*, 35, 38-64.

Treviño, L. K., Weaver, G. R., & Reynolds, S. J. (2006). Behavioral ethics in organizations: A review. *Journal of Management*, 32, 951-990.

Tsui, A. S., Porter, L. W., & Egan, T. D. (2002). When both similarities and dissimilarities matter: Extending the concept of relational demography. *Human Relations*, 55, 899-929.

Van Lange, P. a. M., and Kuhlman, D. M. (1994). Social value orientations and impressions of partner's honesty and intelligence: A test of the might versus morality effect. *Journal of Personality and Social Psychology*, *67*, 126–141.

Vauras, M., Iiskala, T., Kajamies, A., Kinnunen, R., & Lehtinen, E. (2003). Shared-regulation and motivation of collaborating peers: A case analysis. *Psychologia*, *46*, 19–37.

Victor, B., and Cullen, J. B. (1987). A theory and measure of ethical climate in organizations. *Research in corporate social performance and policy*, *9*, 51-71.

Vogelgesang, G. R. (2008). *How leader interactional transparency can impact follower psychological safety and role engagement* (Unpublished doctoral dissertation). The University of Nebraska-Linclon, Linclon, NE.

Vogelgesang, G. R., Leroy, H., and Avolio, B. J. (2013). The mediating effects of leader integrity with transparency in communication and work engagement/performance. *The Leadership Quarterly*, *24*, 405–413.

Walker, K., & Pagano, B. (2008). *Transparency: The clear path to leadership credibility*. Burlington, MA: Linkage.

Wallace, C., & Chen, G. (2006). A multilevel integration of personality, climate, self-regulation, and performance. *Personnel Psychology*, 59, 529-557.

Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., and Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management, 34*, 89–126.

Walumbwa, F. O., and Schaubroeck, J. (2009). Leader personality traits and employee voice behavior: mediating roles of ethical leadership and work group psychological safety. *The Journal of Applied Psychology, 94*, 1275–1286.

Wimbush, J. C., and Shepard, J. M. (1994). Toward an understanding of ethical climate: Its relationship to ethical behavior and supervisory influence. *Journal of Business Ethics*, *13*, 637–647.

Woolley, L., Caza, A., and Levy, L. (2010). Authentic leadership and follower development psychological capital, positive work climate, and gender. *Journal of Leadership & Organizational Studies, 18,* 438–448.

Zhong, C. B., Liljenquist, K. A., & Cain, D. M. (2009). Moral self-regulation. In D. DeCreamer (Ed.), *Psychological perspectives on ethical behavior and decision making* (pp. 75-89). Charlotte, NC: Information Age Publishing.

Figure 1. Proposed Theoretical Model

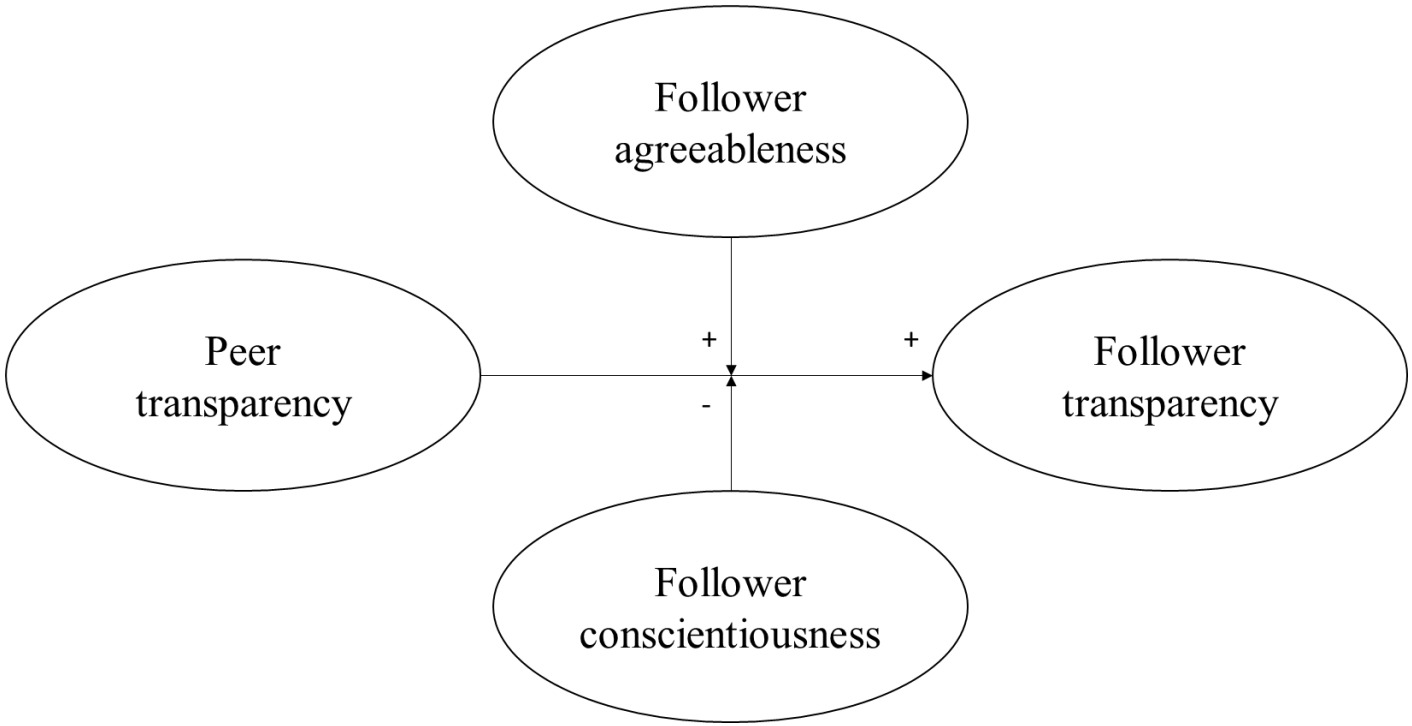

Figure 2. Moderating roles of conscientiousness and agreeableness on the relationship between peer and follower transparency

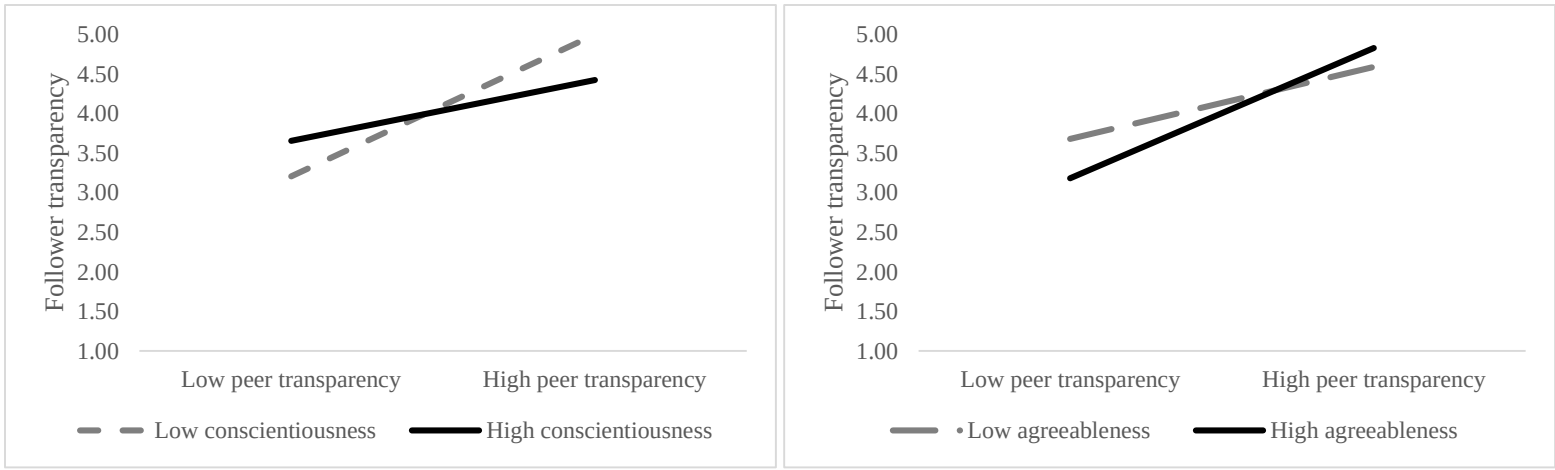

Table 1. Mean, Standard Deviant, and Correlation Matrix of Variables

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11
Group and leader characteristics													
1. Group size	6.26	0.44	1.00										
2. Leader age	1.11	0.31	-0.21 *										
3. Leader gender	1.57	0.50	0.17	-0.41 **									
4. Leader education	1.63	0.61	0.12	-0.36 **	0.53 **								
Follower's characteristics													
5. Age	1.18	0.57	0.03	-0.11	0.03	-0.03							
6. Gender	1.55	0.50	-0.01	0.25 *	-0.20	-0.19	-0.19						
7. Education	2.03	0.64	-0.03	0.09	-0.06	0.00	-0.26 *	0.05					
8. Conscientiousness	3.91	0.58	-0.10	0.03	0.02	-0.19	0.17	0.05	-0.15	(0.79)			
9. Agreeableness	3.96	0.49	-0.06	0.04	0.08	0.03	-0.01	0.07	-0.01	0.34 **	(0.72)		
Peers' and followers' transparency													
10. Peer transparency	3.62	1.12	-0.22 *	-0.15	0.00	0.02	0.13	-0.06	-0.22 *	0.40 **	0.05	(0.86)	
11. Follower transparency	3.97	1.05	-0.27 **	0.10	0.06	-0.07	0.05	0.02	-0.06	0.22 *	0.01	0.59 **	(0.92)

Listwise $N = 91$; *p<.05, **p<.01. Age was coded as the following: 1=under 18, 2=18-21, 3=22-29, 4=30+. Education was coded with the following anchor: 1 = Senior, 2 = Junior, 3 = Sophomore, 4 = Freshman. Gender was coded as the following: 1 = Male, 0 = female.

Table 2. The Relationship between Peer Transparency, Conscientiousness, Agreeableness and Follower Transparency

	Follower transparency			
	Estimate	S.E.	P	
Intercept	3.84	1.75	0.03	**
Group level control variables				
Group size	-0.27	0.25	0.26	
Leader age	0.75	0.38	0.05	*
Leader gender	0.38	0.30	0.20	
Leader education	-0.16	0.30	0.60	
Follower demographic control variables				
Follower age	0.20	0.08	0.02	**
Follower gender	0.08	0.13	0.54	
Follower education	0.20	0.05	0.00	**
Main effect of peer transparency				
Peer transparency	0.58	0.07	0.00	**
Follower personality				
Conscientiousness	-0.06	0.18	0.73	
Agreeableness	-0.13	0.10	0.19	
Peer transparency and personality interaction terms				
Peer transparency * Conscientiousness	-0.40	0.13	0.00	**
Peer transparency * Agreeableness	0.34	0.11	0.00	**
Within group level residual variance	0.47	0.14	0.00	**
Between group level residual variance	0.09	0.07	0.22	

N = 92 (Listwise). Unstandardized path coefficients are shown

* p < .05; ** p < .01

Table 3. Supplementary analyses with Big Five personality as covariate

	Follower transparency			
	Estimate	S.E.	P	
Intercept	3.55	1.57	0.02	*
Group level control variables				
Group size	-0.24	0.21	0.25	
Leader age	0.76	0.46	0.10	
Leader gender	0.37	0.27	0.18	
Leader education	-0.14	0.27	0.61	
Follower demographic control variables				
Follower age	0.14	0.10	0.16	
Follower gender	0.10	0.13	0.43	
Follower education	0.24	0.06	0.00	**
Main effect of peer transparency				
Peer transparency	0.59	0.07	0.00	**
Follower personality				
Openness to experience	-0.10	0.21	0.65	
Conscientiousness	-0.09	0.19	0.65	
Extraversion	-0.20	0.11	0.07	
Agreeableness	-0.33	0.12	0.00	**
Neuroticism	-0.32	0.08	0.00	**
Peer transparency and personality interaction terms				
Peer transparency * Openness to experience	0.06	0.18	0.76	
Peer transparency * Conscientiousness	-0.39	0.13	0.00	**
Peer transparency * Extraversion	0.14	0.13	0.28	
Peer transparency * Agreeableness	0.42	0.14	0.00	**
Peer transparency * Neuroticism	0.06	0.09	0.49	
Within group level residual variance	0.45	0.14	0.00	**
Between group level residual variance	0.07	0.07	0.29	

$N = 91$ (Listwise). Unstandardized path coefficients are shown

* $p < .05$; ** $p < .01$