

# Personality Traits and Whistleblowing on Twitter: The Moderating Roles of Moral Identity and Politics Perceptions

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## Abstract

The present study examines the impact of the Big Five personality on whistleblowing behaviors on Twitter. Meanwhile, two opposite moderators are explored that the weak situations of whistleblowing on Twitter can activate users' trait. Hierarchical regression analyses were conducted to test the hypotheses, with the Big Five personality traits as predictors and whistleblowing behaviors on Twitter as criterion variables. First, individuals high in extraversion and conscientiousness tend to perform both the original and retweeting whistleblowing on Twitter; Individuals low in agreeableness are more likely to reveal original wrongdoing information, while those high in agreeableness tend to retweet information; individuals high in openness enjoy retweeting but not original whistleblowing. The degree of moral identity moderates the positive relationship between extraversion / agreeable / conscientiousness and (retweeting) whistleblowing on Twitter, such that the relationship is stronger as moral identity increases. The degree of politics perceptions moderates the relationship between extraversion/agreeable/conscientiousness and (retweeting) whistleblowing on Twitter, such that the relationship is weaker as politics perceptions increases. The degree of moral identity moderates the negative relationship between agreeableness and original whistleblowing on Twitter, such that the relationship is weaker as moral identity increases. The degree of politics perceptions moderates the negative relationship between agreeableness and original whistleblowing on Twitter, such that the relationship is stronger as politics perceptions increases. This paper gives a form of weak situations on whistleblowing. A pair of opposite cues may build the weak situations. Modern identity shows the positive power for potential whistleblowers to express their trait, while politics perceptions prevent them exert personality by whistleblowing. The paradox situations could give a behavioral model how observers with different traits respond to the wrongdoings in these situations.

**Keywords:** original whistleblowing, retweeting whistleblowing, moral identity, politics perceptions, the big five personality

## 1. Introduction

Whistleblowing is disclosing behavior when employees find organizational wrongdoing (Bateman & Crant, 1993). Personality shows why some employees are more likely to engage in whistleblowing than others and do actions aimed at limiting organizational wrongdoing (Miceli, 2004). However, the relationship between personality and whistleblowing is confused. For example, Bjørkelo, Einarsen, and Matthiesen (2010) suggest high conscientiousness predicts whistleblowing while it is not supported by empirical evidences. The types of whistleblowing can influence the intention and attitude (Park, Blenkinsopp, & Park, 2014). External reporting channel improves whistleblowing intentions, compared with an internal administered channel (Gao & Greenberg, 2015). Thus, this paper focuses on external whistleblowing.

Twitter is an influential Internet site for information exchange and social exposure. Users can update their webpage with short statements called "tweets," while other users can interact with them. More and more people use Twitter to disclose hidden or private information to the public (Griffith & Liyanage, 2008). Thus, it seems that this social media impacts how voices are heard (Klaas, Olson-Buchanan, & Ward, 2012). Although existing discussion does provide evidence indicating that personality differences are influential in guiding Twitting behaviors (Hughes, Rowe, Batey, & Lee, 2012), research on the personality antecedents of whistleblowing on Twitter has been scarce. Furthermore, disclosing wrongdoing is not necessary to witness the unethical behavior. If one witnesses the wrongdoings by others, s/he can ensure the reliability of whistleblowing. If an employee

read the wrongdoing information in the intranet, s/he only estimates the importance of wrongdoing event. Proactive personalities such as introvert/extravert, agreeableness, and conscientiousness may have distinct influence on whistleblowing (Park & Blenkinsopp, 2009) in the original and retweeting situations, which is worth further investigation. In addition, situational factors can influence the whistleblowing intention (Dozier & Miceli, 1985). However, to date few studies have been focused on the interacting role between personality and situational factors on different types of whistleblowing.

This study clarifies whistleblowing by original and retweeting forms according to whether the whistleblower witness or not witness the wrongdoing. Thus, this paper aims to examine how the Big-Five personality traits impact whistleblowing behaviors on Twitter. Further, according to trait activation theory, strong situational cues result in few differences of observers' behaviors, but weak situations elicit behavior for a latent personality (Lievens, Chasteen, Day, & Christiansen, 2006). We propose moral intention and politics perceptions are two trait-related cues in opposite situation, thus examine the moderating roles of moral intention and politics perceptions on the relationship between Big-Five personality traits and whistleblowing, which provides insights into paradoxical cognition to activate whistleblowers' personality.

### *1.1 Whistleblowing on Twitter*

Whistleblowing in organizational research is defined as a behavior performed by organizational members to disclose a serious wrongdoing to supervisors or the external public (Nayir & Herzig, 2012). Whistleblowing has been differentiated as internal whistleblowing and external whistleblowing. Internal whistleblowing refers that members disclose wrongdoing to people within an organization, while external whistleblowing refers to disclosing wrongdoing to someone outside of an organization such as Twitter users. Twitter provides an avenue for users to share information without exposing one's identity (Huberman, Romero, & Wu, 2009). According to trait activation theory (Lievens et al., 2006), anonymity reduces interpersonal pressure which creates a favorable situation to activate certain personality traits for disclosing information on Twitter.

#### *1.1.1 Original and Retweeting Whistleblowing*

Twitter, as an important tool of social network sites (SNSs), has a special function that promotes network capitalizing for netizens (Boyd, 2004). Whistleblowing on Twitter can be differentiated into original and retweeting whistleblowing based on the originality of information. The former refers to initiatively disclosing wrongdoing via SNSs, and the latter refers to forwarding information of wrongdoing via SNSs. The essential differences between these two types of whistleblowing behaviors may be reflected in their personality antecedents.

Specifically, Twitter has the function of helping users develop relationships and maintain friendships (Boyd & Ellison, 2010). Original whistleblowers may feel less constrained because they only need to consider their relationships with wrongdoers targeted by original information but not other relationships. Retweeting whistleblowers may have a stronger motivation to connect with friends than original whistleblowers. Before users retweet wrongdoing information, they usually anticipate that other Twitter friends have already known such unethical behaviors. Thus, the original and retweeting whistleblowing information may shape users' personality to some extent. This study proposes that the mechanisms between users' personalities and whistleblowing behaviors differ between the original tweeting and retweeting situations.

#### *1.2 Personality Traits and Twitter Whistleblowing*

The Big Five personality traits include five dimensions, that is, extraversion, agreeableness, conscientiousness, neuroticism, and openness (Costa Jr, Terracciano, & McCrae, 2001). The five dimensions have been replicated across cultures and thus deemed as universal personalities (McCrae & Costa Jr, 1997). Twitter provides a virtual place where users' personality could be demonstrated. For instance, profile information accurately reflects users' personalities (Golbeck, Robles, Edmondson, & Turner, 2011). Some studies have explored the association between personality traits and Twitter use (Hughes et al., 2012; Wang, Qu, & Sun, 2013). However, the relationship between personality traits and Twitter whistleblowing behaviors has been short of investigation. Thus, the following sections explore the relationships between the Big Five personality traits and Twitter whistleblowing behaviors.

##### *1.2.1 Extraversion and Twitter Whistleblowing*

Extraversion is defined as the tendency to be adventurous, talkative, sociable, and optimistic (Costa Jr et al., 2001). Extraverts tend to be optimistic and energetic when making friends on the Internet. Some researchers propose that extraversion is positively related to the use of SNSs (Correa, Hinsley, & De Zuniga, 2010). For instance, Wang and his colleagues (2013) supported the positive relationship between extraversion and the use of

Weibo (a China Twitter). Extraverts also tap into positive affectivity and urgency, which stimulates their cooperative interactions with Twitter followers. Extraverts also tend to broaden their networks by being members of more groups (Ross et al., 2009). Moreover, Lepine and Van Dyne (2001) found that extraversion was positively related to voice behavior. Bjorkelo and his colleagues (2010) revealed that whistleblowing was positively correlated with extraversion. Thus, we propose there is a positive relationship between extraversion and whistleblowing behaviors on Twitter (H1).

#### 1.2.2 Agreeableness and Twitter Whistleblowing

Agreeableness have been referred as an interpersonal trait that reflects love and hate (Digman & Inouye, 1986). It reflects one's tendency to selflessly and kindly endorse interpersonal cooperation (Graziano & Eisenberg, 1997). Organizational members are more likely to discover unethical behaviors or wrongdoing in the workplace when the leader stresses ethical rules. However, an individual high in agreeableness may not be willing to perform whistleblowing so as to avoid jeopardizing his or her relationship with the wrongdoer, while low agreeable individual may perform whistleblowing (Bjorkelo et al., 2010).

Given that the Internet enables one to maintain friendships that may be difficult to do offline (Ross et al., 2009), agreeableness may be positively related to the use of twitter (Hughes et al., 2012). However, several studies have generally found that agreeableness is not related to the use of social media (Correa et al., 2010; Ross et al., 2009), maybe because an individual would avoid risking the interpersonal retaliation from the wrongdoer (Gundlach, Douglas, & Martinko, 2003). In original whistleblowing situation, a person mainly needs to manage his or her relationship with wrongdoers. An individual high in agreeableness tend to focus on maintaining interpersonal relationships even with wrongdoers. Thus, high agreeable individuals are less willing to perform original whistleblowing (H2a). However, this logic may not be replicated to the retweeting whistleblowing situation, where a whistleblower needs to manage his or her direct relationship with the original whistleblower and the indirect relationship with the wrongdoer who he or she may not know. In this case, the retweeting whistleblower may be friendlier with the original messenger than with the wrongdoer. An individual high in agreeableness thus tends to help the original messenger deliver wrongdoing information by performing retweeting whistleblowing behaviors (H2b).

#### 1.2.3 Conscientiousness and Twitter Whistleblowing

Conscientiousness indicates the extent to which a person is careful, responsible, and ethical (Costa Jr & McCrae, 1992). Whistleblowing reflects one's protection over social rules. High conscientious individuals tend to sustain existing rules (Bjorkelo et al., 2010), and they may not shift to new rules even with the task or situation change. Meanwhile, whistleblowers may report the wrongdoing as a consideration of protecting social rules. Hughes et al. (2012) found that the use of Twitter for informational purpose was positively related with conscientiousness. For instance, Wang and his coauthors (2013) proved that high conscientious users tended to enjoy voting on Weibo. Newness and his coauthors (2012) found a negative relationship between users' conscientiousness and inappropriate disclosure on Facebook. Thus, whistleblowing on Twitter with an aim of protecting social rules may be positively related to conscientiousness (H3).

#### 1.2.4 Neuroticism and Twitter Whistleblowing

Neuroticism is defined as the tendency to be anxious, depressed, and embarrassed, and to show self-control over emotional stability (Costa Jr & McCrae, 1992). Whistleblowers generally score high on negative affectivity when they observe wrongdoing (Bjorkelo et al., 2010). Individuals high in neuroticism feel insecure and embarrassed to entail interpersonal risk, so they are reluctant to cooperate and communicate with others. However, recent research shows that high neurotic individuals use the Internet more frequently to avoid loneliness (Butt & Phillips, 2008).

Twitter provides those high in neuroticism a convenient platform to get a satisfying sense of group belonging and to express personal feelings through open communication (Butt & Phillips, 2008). The frequency of informational whistleblowing for instant messengers is positively related to their neuroticism (Correa et al., 2010). However, if they initiate the disclosure of the wrongdoing information, the negative comments from followers may cause them depression. Thus, Facebook users high in emotional stability tend to control their inappropriate disclosure (Newness, Steinert, & Viswesvaran, 2012). Hughes et al. (2012) pointed out that the use of Twitter for information sharing was negatively correlated to neuroticism. Thus original whistleblowing to disclose information is a challenge for high neurotic users (H4a). However, in order to increase the sense of group belonging and express feelings towards wrongdoing information, high neurotic users may follow original whistleblowers to retweet the information more frequently than those low in neuroticism (H4b).

### 1.2.5 Openness and Twitter Whistleblowing

Openness is described as the extent to which a person seeks novelty (Costa Jr & McCrae, 1992). Individuals high in openness are usually down to traditions (Furnham, 2008). Whistleblowers are more constrained by rules than those who are driven by searching novelty (Bjorkelo, Ryberg, Matthiesen, & Einarsen, 2008). Although evidence supports that openness is unrelated to whistleblowing in the workplace (Bjorkelo et al., 2010), Twitter provides a context where witnesses or users can protect rules by performing whistleblowing. Thus those low in openness are more likely to perform original whistleblowing on Twitter (H5a).

Individuals high in openness also seek opportunities to access new information and enjoy socializing on the Internet. The use of SNSs has been proved to be positively related to users' openness (Correa et al., 2010), which implies that information seeking is positively related to openness. Thus wrongdoing information is more likely to be retweeted by users higher in openness. Evidence from some studies supports that Twitter socializing and openness are positively correlated (Hughes et al., 2012). Wang and his colleagues (2013) empirically confirmed that users high in openness tend to increase times of @ function (send message to target audience) on Twitter. Thus, we propose openness as a positive predictor of retweeting whistleblowing (H5b).

### 1.3 Moral Identity as a Positive Moderator

One major objective of this study is designing an overall framework of how whistleblowers' contexts influence their ethical behavior. Moral identity of the issues is a situational factor to make ethical decision (Jones, 1991). The force such as moral identity that compels the whistleblower to make a moral decision, so the issues of higher moral identity tend to be considered as requiring more ethical judgments than that of lower identity (Bhal & Dadhich, 2011). Users with others judgments are critical information when making interpretations of their moral contexts. In the judgment process, users heavily base on contextual information as reference point to make sense of ambiguous or subjective information (Greenberg, Ashton-James, & Ashkanasy, 2007). Moral identity includes 6 parts such as: magnitude of consequences, social consensus, probability of effect, temporal immediacy and proximity (Jones, 1991). For example, social consensus is "the degree of social agreement that a proposed act is evil (or good)." Proximity was defined as the "feeling of nearness (social, cultural, psychological, or physical) that the moral agent has for victims (beneficiaries) of the evil (beneficial) act in question" (Jones, 1991, p. 376). Above factors show the other moral reference as the social context to make judgement of wrongdoings. Many literatures suggest ethical decision making is moderated by both personal and situational variables (Cassemetis & Wortley, 2013; Robinson, Robertson, & Curtis, 2012). Situations involving high-negative consequences could need more supportive environment like moral consensus for people to report wrongdoing. In such situations, moral identity can reflect personal commitment to moral judgments which increases the likelihood of whistleblowing in high conscientiousness, extraversion. However, neuroticism is unstable to make decision about risk behavior which is unfit the stable propensity such as moral identity. Observers in high openness tend to retweet the wrongdoing information if their moral identity is high. Observers with high agreeableness are likely to accept and retweet the wrongdoing information by friends, but they cut the probability of original whistleblowing to averse the personal risk when their moral identity is high.

### 1.4 Politics Perceptions as a Negative Moderator

An important factor to limit whistleblowing is fear of reprisal (Cassemetis & Wortley, 2013). Retaliation includes various forms such as social ostracism, counter accusations or professional blacklisting (Rothschild, 2008). Politics perceptions as the perception of self-interests at the expense of organizational goals, is directed toward power holders using tactics perceived by most as disreputable (Hochwarter, Kacmar, Perrewe, & Johnson, 2003). Members' self-serving behavior limits the intention to report the wrongdoings by potential observers. If the observers own high politics perceptions, they tend to protect themselves from the retaliation by wrongdoers. Thus, observers in high politics perceptions demote the relationship between personality and whistleblowing. For example, when potential whistleblowers in high conscientiousness or extraversion get more politics perceptions, they are less likely to blow the whistle than that of less politics perceptions.

Twitter influences how people communicate and is acknowledged as a dominant avenue for information sharing. With more people disclosing information on Twitter, it is necessary to discern people with which types of personality are more likely to blow the whistle on the Internet. Research supports that individual differences influence whistleblowing in the workplace (Bjorkelo et al., 2010) or on Twitter (Hughes et al., 2012). This study examines the relationships between Big-Five personality traits and whistleblowing behaviors on Twitter, which may be moderated by moral identity and politics perceptions. In sum, we propose hypothesizes as follow:

H1: Extraversion is positively related to both original and retweeting whistleblowing on Twitter.

- H2a: Agreeableness is negatively related to original whistleblowing on Twitter.
- H2b: Agreeableness is positively correlated with retweeting whistleblowing on Twitter.
- H3: Conscientiousness is positively correlated with both original and retweeting whistleblowing on Twitter.
- H4a: Neuroticism is negatively related to original whistleblowing on Twitter.
- H4b: Neuroticism is positively correlated with retweeting whistleblowing on Twitter.
- H5a: Openness is negatively related to original whistleblowing on Twitter.
- H5b: Openness is positively correlated with retweeting whistleblowing on Twitter.
- H6a: The degree of moral identity moderates the positive relationship between extraversion and whistleblowing on Twitter, such that the relationship is stronger as moral identity increases.
- H6b: The degree of politics perceptions moderates the positive relationship between extraversion and whistleblowing on Twitter, such that the relationship is weaker as politics perceptions increases.
- H7a: The degree of moral identity moderates the negative relationship between agreeableness and original whistleblowing on Twitter, such that the relationship is weaker as moral identity increases.
- H7b: The degree of politics perceptions moderates the negative relationship between agreeableness and original whistleblowing on Twitter, such that the relationship is stronger as politics perceptions increases.
- H7c: The degree of moral identity moderates the positive relationship between agreeableness and retweeting whistleblowing on Twitter, such that the relationship is stronger as moral identity increases.
- H7d: The degree of politics perceptions moderates the positive relationship between agreeableness and retweeting whistleblowing on Twitter, such that the relationship is weaker as politics perceptions increases.
- H8a: The degree of moral identity moderates the positive relationship between conscientiousness and original whistleblowing on Twitter, such that the relationship is stronger as moral identity increases.
- H8b: The degree of politics perceptions moderates the positive relationship between conscientiousness and original whistleblowing on Twitter, such that the relationship is weaker as politics perceptions increases.
- H8c: The degree of moral identity moderates the positive relationship between conscientiousness and retweeting whistleblowing on Twitter, such that the relationship is stronger as moral identity increases.
- H8d: The degree of politics perceptions moderates the positive relationship between conscientiousness and retweeting whistleblowing on Twitter, such that the relationship is weaker as politics perceptions increases.
- H9a: The degree of moral identity moderates the positive relationship between neuroticism and original whistleblowing on Twitter, such that the relationship is weaker as moral identity increases.
- H9b: The degree of politics perceptions moderates the negative relationship between neuroticism and original whistleblowing on Twitter, such that the relationship is stronger as politics perceptions increases.
- H9c: The degree of moral identity moderates the positive relationship between neuroticism and retweeting whistleblowing on Twitter, such that the relationship is stronger as moral identity increases.
- H9d: The degree of politics perceptions moderates the positive relationship between neuroticism and retweeting whistleblowing on Twitter, such that the relationship is weaker as politics perceptions increases.
- H10a: The degree of moral identity moderates the positive relationship between openness and retweeting whistleblowing on Twitter, such that the relationship is stronger as moral identity increases.
- H10b: The degree of politics perceptions moderates the negative relationship between openness and original whistleblowing on Twitter, such that the relationship is stronger as politics perceptions increases.
- H10c: The degree of moral identity moderates the positive relationship between openness and retweeting whistleblowing on Twitter, such that the relationship is stronger as moral identity increases.
- H10d: The degree of politics perceptions moderates the positive relationship between openness and retweeting whistleblowing on Twitter, such that the relationship is weaker as politics perceptions increases.

## **2. Method**

### *2.1 Participants*

Participants were recruited via Twitter. Data were collected with internet-based surveys in two times. In time 1, we collected the data of gender, age, twitter time, moral identity, politics perceptions, original whistleblowing

and retweeting whistleblowing. After one month, original whistleblowing and retweeting whistleblowing were collected in time 2. In the end, 327 completed responses were collected in two times, with 27% being males and 73% being females. The age of respondents ranged from 20 to 57 ( $M=25.12$ ,  $SD=7.95$ ). The time of using Twitter was between 0 and 46 hour per week ( $M=7.18$ ,  $SD=7.55$ ).

## 2.2 Measures

### 2.2.1 Personality

We measured extraversion, agreeableness, conscientiousness, neuroticism and openness with the 60-item NEO Five-Factor Inventory, which was developed by Costa and McCrae (1992), with items such as “I really enjoy talking to people” (extraversion Cronbach’s  $\alpha$  in time 1= .81, agreeableness Cronbach’s  $\alpha$  in time 1= .79, conscientiousness Cronbach’s  $\alpha$  in time 1= .73, neuroticism Cronbach’s  $\alpha$  in time 1= .74 and openness Cronbach’s  $\alpha$  in time 1= .76). We used the 7-point Likert scale ranging from 1 = “strongly disagree” to 7 = “strongly agree.”

### 2.2.2 Original and Retweeting Whistleblowing

Both original and retweeting whistleblowing were measured by adapting the scale of external whistleblowing scale (Park & Blenkinsopp, 2009). Original whistleblowing was measured with one proactive question “If you found wrongdoing originally, do you try to do the following,” and 3 items such as “I use Twitter to inform the public” (Cronbach’s  $\alpha$  in time 1= .75, Cronbach’s  $\alpha$  in time 2 = .72). Retweeting whistleblowing was assessed with a proactive question “If you found wrongdoing information on Twitter, do you try to do the following,” and 3 items such as “I use Twitter to retweet the information to the public”. A seven-point scoring format was employed from 1 = “strongly disagree” to 7 = “strongly agree.” (Cronbach’s  $\alpha$  in time 1= .78, Cronbach’s  $\alpha$  in time 2= .75).

### 2.2.3 Moral Identity

Moral identity was measured by 10 items scale from Aquino and Reed (2002). For example, “An object in my life is to be a moral person.” A seven-point scoring format was adopted from 1 = “strongly disagree” to 7 = “strongly agree.” (Cronbach’s  $\alpha$ = .79)

### 2.2.4 Politics Perceptions

Politics Perceptions were measured by 4 items from Hochwarter et al. (2003).” There is a lot of self-serving behavior going on” and “People are working behind the scenes to ensure that they get their piece of the pie” represented scale items. The 7-point Likert scale was used ranging from 1 = “strongly disagree” to 7 = “strongly agree.” (Cronbach’s  $\alpha$ = .80).

### 2.2.5 Control Variables

We controlled for gender (Male=0, Female=1), age and whistleblowing in time 1 to reduce the impacts they might have towards the hypothesized relationships. Twitter time (i.e., the number of hours spent on Twitter per week) and whistleblowing in time 1 was also controlled given that it might impact whistleblower’s behaviors in time 2.

## 3. Results

Table 1 presents an overview of bivariate correlations between control variables, the Big Five dimensions and whistleblowing in two times. As shown, extraversion was significantly related with original whistleblowing (.29) and retweeting whistleblowing (.37) in time 2. Furthermore, agreeableness was negatively related with original whistleblowing (-.15) while conscientiousness was positively related to retweeting whistleblowing (.19) in time 2.

Table 1. Correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Gender													
2 Age	.02												
3 Twitter Time	.03	.04											
4 OWP	.01	.09	.10										
5 RWP	.05	.07	.11	.25**									
6 Extraversion	.08	.09	.09	.31**	.35**								
7 Agreeableness	.02	.06	.04	-.15*	.09	.29**							
8 Conscientiousness	.00	.08	.01	.14*	.12	.19*	.40**						
9 Neuroticism	.04	.04	.07	.05	.07	-.22*	-.19*	-.21*					
10 Openness	.01	.07	.04	.05	.11	.15*	.39**	.17*	.09				
11 MI	.05	.04	.04	.14*	.10	.02	.07	.21*	.07	.10			
12 PP	.07	.06	.06	.07	.05	.07	.01	.06	-.16*	.11	.03		
13 Original Whistleblowing	.07	.09	.01	.27**	.15*	.29**	-.15*	.12	.10	.08	.18*	.09	
14 Retweeting Whistleblowing	.06	.11	.03	.18*	.30**	.37**	.10	.19*	.03	.07	.15*	.05	.19*

Notes. N = 327, \*p < .05, \*\*p < .01.

MI stands for moral identity, PP stands for politics perceptions, OWP means original whistleblowing in time 1, RWP means retweeting whistleblowing in time 1.

Hierarchical regression analyses were conducted to test the hypotheses, with the Big Five personality traits as predictors and whistleblowing behaviors on Twitter as criterion variables. Age, gender, Twitter time, original whistleblowing and retweeting whistleblowing in time 1 as control variables were entered in step 1, and the Big Five dimensions were simultaneously entered in step 2. At last, the interaction terms of traits and moral identity or politics perceptions were entered in step 3. Results showed that Big Five personality traits accounted for a significant variance of dependent variables beyond that of the five control variables. Regression coefficients and standard errors were shown in Table 2.

Table 2 Regression results predicting original and retweeting whistleblowing via Twitter

	Dependent Variables			B (SE)			
	Original Whistleblowing			Retweeting Whistleblowing			
Step 1	M 1	M 2	M3	M 4	M 5	M6	M(SD)
Gender	-0.37 (0.21)	0.06 (0.19)	0.05(0.18)	-0.32 (0.22)	-0.21 (0.17)	-0.19(0.15)	0.73 (0.45)
Age	0.11 (0.14)	0.12 (0.13)	0.11(0.13)	0.22 (0.16)	0.15 (0.11)	0.14(0.10)	25.12 (7.95)
Twitter Time	0.09 (0.17)	0.08 (0.15)	0.06(0.14)	-0.08 (0.18)	-0.06 (0.13)	-0.04(0.12)	7.18 (4.55)
OWP	0.18(0.05)**	0.11(0.05)*	0.09(0.05)	0.10(0.05)*	0.09(0.05)	0.07(0.05)	3.85(1.54)
RWP	0.13(0.06)*	0.11(0.06)	0.10(0.06)	0.20(0.06)**	0.17(0.06)*	0.15(0.06)*	5.14(2.41)
Step 2							
Extraversion		0.28 (0.09)**	0.25 (0.09)**		0.33 (0.08)**	0.30(0.08)**	4.15 (1.21)
Agreeableness		-0.20 (0.08)*	-0.18 (0.08)*		0.16 (0.08)*	0.14 (0.08)	4.89 (0.85)
Conscientiousness		0.15 (0.07)*	0.14 (0.07)*		0.22 (0.07)**	0.20(0.07)**	5.12 (0.99)
Neuroticism		0.11 (0.08)	0.10 (0.08)		0.01(0.07)	0.00 (0.07)	3.49 (1.17)
Openness		0.13 (0.09)	0.11 (0.09)		0.23 (0.09)*	0.20 (0.09)*	5.26 (1.08)
Step3							
Extraversion × MI			0.11(0.05)*			0.13(0.05)*	
Extraversion × PP			-0.09(0.05)*			-0.11(0.05)*	
Agreeableness × MI							
Agreeableness × PP			0.08(0.04)*			0.10(0.05)*	
Conscientiousness × MI							
Conscientiousness × PP			-0.09(0.04)*			-0.11(0.05)*	
Neuroticism × MI							
Neuroticism × PP			0.05(0.03)			0.08(0.04)*	
Openness × MI							

Openness×PP			-0.03(0.04)			-0.09(0.04)*
			0.03(0.03)			0.01(0.03)
			-0.05(0.03)			-0.07(0.05)
			0.07(0.05)			0.06(0.04)
			-0.09(0.04)			-0.05(0.05)
$\Delta R^2$	0.02	0.23**	0.11*	0.01	0.31**	0.14*

Notes.  $N = 327$ , \* $p < .05$ , \*\* $p < .01$ .

MI stands for moral identity, PP stands for politics perceptions, OWP means original whistleblowing in time 1, RWP means retweeting whistleblowing in time 1.

### 3.1 Relationships between Big Five Personality Traits and Original Whistleblowing on Twitter

As shown in Table 2, model 1 is the baseline model with only control variables predicting original whistleblowing. Model 2 shows the influence of extraversion, agreeableness, and conscientiousness on original whistleblowing. Both extraversion ( $B = 0.28$ ,  $p < 0.01$ ) and conscientiousness ( $B = 0.15$ ,  $p < 0.05$ ) had a significantly positive impact on original whistleblowing, supporting Hypothesis 1 and 3. The influence of agreeableness on original whistleblowing was significantly negative ( $B = -0.20$ ,  $p < 0.05$ ), which supports Hypothesis 2a. The relationship between original whistleblowing and neuroticism ( $B = 0.11$ ) or openness ( $B = 0.13$ ) was not significant. Thus, Hypothesis 4a and 5a are not supported.

### 3.2. Relationships between Big Five personality traits and retweeting whistleblowing on Twitter

Model 4 is a baseline model with only control variables predicting retweeting whistleblowing. Model 5 exhibits the effects of extraversion, agreeableness, conscientiousness, and openness on retweeting whistleblowing. Both extraversion ( $B = 0.33$ ,  $p < 0.01$ ) and conscientiousness ( $B = 0.22$ ,  $p < 0.01$ ) had a significantly positive influence on retweeting whistleblowing. This result respectively supports Hypothesis 1 and 3. For Hypothesis 5b, we predicted that openness was positively associated with retweeting whistleblowing, and this hypothesis is supported ( $B = 0.23$ ,  $p < 0.05$ ). The influence of agreeableness on retweeting whistleblowing was modestly positive ( $B = 0.16$ ,  $p < 0.05$ ), which contradicts to Hypothesis 2b. The relationship between retweeting whistleblowing and neuroticism was not significant ( $B = 0.00$ ,  $p > 0.05$ ), which does not support Hypothesis 4b. Model 6 shows the moderating effects. Both moral identity and politics perceptions had a significantly moderating role on the relationship between extraversion/agreeableness and original /retweeting whistleblowing, this results support Hypothesis 6a-b and 7a-b. The moderating influence by moral identity ( $B = 0.08$ ,  $p < 0.05$ ) and politics perceptions ( $B = -0.09$ ,  $p < 0.05$ ) was only proved between relationship between conscientiousness and retweeting whistleblowing, which supported Hypothesis 8c-d. The moderating effects of neuroticism and openness were not significant. Thus, Hypothesis 8a-b, 9a-d and 10a-d were not supported.

## 4. Discussion

Scholars pay increasing attention to proactive traits and whistleblowing behaviors on Twitter. Original tweeting and retweeting are two types of information sharing on Twitter. However, few studies have discovered the relationship between personality traits and different types of whistleblowing on Twitter. To fill in the gap, we hypothesize the relationships between various personalities and whistleblowing behaviors. The analysis results show that different personality dimensions have different impacts on original and retweeting whistleblowing on Twitter.

Extraversion and conscientiousness were shown as two significant predictors of both original and retweeting whistleblowing behaviors on Twitter, which supports H1 and H3. The prototypic proactive personalities such as extraversion and conscientiousness are less constrained by situation and environmental change (Bateman & Crant, 1993), and thus are more stable and sufficient in explaining whistleblowing behaviors across situations (Björkelo et al., 2010). Compared with personalities such as agreeableness, neuroticism, and openness, extraversion and conscientiousness explain a larger amount of variance of whistleblowing about organizational phenomena (Miceli, Near, Rehg, & Van Scotter, 2012). Thus, regardless of whistleblowing in the workplace (Björkelo et al., 2010) or on Twitter, extraversion and conscientiousness are positive predictors of both original and retweeting whistleblowing. This finding implies that Twitter can be a good tool for users with extraversion and conscientiousness personalities to communicate and express feelings when they discover wrongdoing information.

When users blow the whistle on Twitter, they usually need to manage their relationships with Twitter friends and wrongdoers. However, if users blow wrongdoing firsthand (original whistleblowing), they only need to deal with



the wrongdoers because their Twitter friends may not know the wrongdoing information without their whistleblowing. However, if users find unethical information from their Twitter friends, they need to manage their relationships with both their Twitter friends and wrongdoers.

Agreeableness showed different relationships with original and retweeting whistleblowing. In original whistleblowing situation, users high in agreeableness tend to avoid whistleblowing because they are not willing to jeopardize their social relationships (Bjørkelo et al., 2010). In retweeting whistleblowing situation, high agreeable individuals tend to help their friends to retweet wrongdoing information. Thus, in contrast to original whistleblowing, retweeting whistleblowing exhibits group polarization effect (Myers & Lamm, 1976). Users can make more risky decisions, putting their friends who originally post the wrongdoing information at the risk of retaliation.

Contrary to H4a and H4b, neuroticism was unrelated to original and retweeting whistleblowing on Twitter. Users high in neuroticism may be ambivalent under whistleblowing situations. On one hand, they need to disclose more information to express their social anxiety (Trapnell & Campbell, 1999), depression, and need of belongingness (Seidman, 2013). On the other hand, they are anxious about the risk of self-presentation (Seidman, 2013). This psychological dilemma may limit the expression of one's neuroticism in whistleblowing on Twitter.

Studies have been consistent on the viewpoint that openness is positively related to increasing social media use (Correa et al., 2010; McElroy, Hendrickson, Townsend, & DeMarie, 2007; Moore & McElroy, 2012). In this current study, openness was positively related with retweeting whistleblowing but not with original whistleblowing. Although people low in openness tend to obey rules, the wrongdoing turns out to be the novelty that users high in openness usually look for. Thus, individuals high in openness may not blow the whistle when they witness unethical behaviors. Since retweeting provides an opportunity to seek novelty from adequate information, users may choose to retweet wrongdoing information rather than originally tweeting something they already know.

Furthermore, trait activation theory gives the conclusion that weak situations activation expressed space with different traits. Which cues are weak situations? It remains unexplored. This paper gives a form of weak situations on whistleblowing. A pair of opposite cues may build the weak situations. Modern identity shows the positive power for potential whistleblowers to express their trait, while politics perceptions prevent them exert personality by whistleblowing. The paradox situations could give a behavioral model how observers with different traits respond to the wrongdoings in these situations.

## 5. Limitations

Although we find that some Big Five personality traits can predict whistleblowing behaviors on Twitter, we still need to consider the following limitations of this study. First, the overrepresentation of females may limit the generalization of our findings. To limit the impacts, we controlled for age and results showed that its impact on the dependent variables were not significant. Second, the sample size was small, which may be one of the reasons why a couple of hypotheses were not supported. Third, Although this study used longitude data to control some bias, self-report measures of both independent variables and criterion outcomes may result in common variance bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

## 6. Implications and Future Research

The results from this study showed that personality traits are important predictors of tweeting and retweeting whistleblowing behaviors. Specially, the proactive personalities such as extraversion and conscientiousness had stronger relationships with Twitter whistleblowing than other three Big Five traits. Meanwhile, moral identity and politics perceptions show opposite situation between these traits and whistle blowing on Twitter. This implies that stable personality factors may be better than broad facets in predicting offline behaviors in these opposite situations. Thus the uncovered stable traits such as core self-evaluations traits (Judge & Bono, 2001) should be explored to explain offline whistleblowing in the future. In addition, more research needs to be carried out to explore why situational variables can moderate the relationship between users' personality traits and their offline behaviors. Different from whistleblowing, other offline behaviors such as network review may relate to different proactive personality traits, which await further investigation.

## 7. Conclusion

Extraversion and conscientiousness, as prototypic proactive personalities, are unconstrained by different situations such as original and retweeting on Twitter. Contrary to original whistleblowing, retweeting creates group polarization effect for neuroticism users. Open individuals tend to seek novelty from retweeting information, and they may not enjoy being the first one blowing the whistle for unethical behaviors. Neurotic

users may feel ambivalent to make a choice between seeking belongingness from Twitter friends and avoiding retaliations from wrongdoers. The degree of moral identity moderates the positive relationship between extraversion and whistleblowing on Twitter, such that the relationship is stronger as moral identity increases. The degree of politics perceptions moderates the positive relationship between extraversion and whistleblowing on Twitter, such that the relationship is weaker as politics perceptions increases. The degree of moral identity moderates the negative relationship between agreeableness and original whistleblowing on Twitter, such that the relationship is weaker as moral identity increases. The degree of politics perceptions moderates the negative relationship between agreeableness and original whistleblowing on Twitter, such that the relationship is stronger as politics perceptions increases. The degree of moral identity moderates the positive relationship between agreeableness and retweeting whistleblowing on Twitter, such that the relationship is stronger as moral identity increases. The degree of politics perceptions moderates the positive relationship between agreeableness and retweeting whistleblowing on Twitter, such that the relationship is weaker as politics perceptions increases. The degree of moral identity moderates the positive relationship between conscientiousness and retweeting whistleblowing on Twitter, such that the relationship is stronger as moral identity increases. The degree of politics perceptions moderates the positive relationship between conscientiousness and retweeting whistleblowing on Twitter, such that the relationship is weaker as politics perceptions increases.

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### Ethics Statement

This study was carried out in accordance with the recommendations of the Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans 2 (TCPS2). The protocol was approved by the Interdisciplinary Committee on Ethics in Human Research (ICEHR). All subjects gave written informed consent in accordance with TCPS2.

### References

- Aquino K., & Reed, A. I. (2002). The Self-importance of Moral Identity. *Journal of Personality and Social Psychology*, 83(6), 1423-1440. <https://doi.org/10.1037//0022-3514.83.6.1423>
- Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior: A measure and correlates. *Journal of Organizational Behavior*, 14(2), 103-118. <https://doi.org/10.1002/job.4030140202>
- Bhal, K. T., & Dadhich, A. (2011). Impact of ethical leadership and leader-member exchange on whistle blowing: The moderating impact of the moral intensity of the issue. *Journal of Business Ethics*, 103(3), 485-496. <https://doi.org/10.1007/s10551-011-0876-z>
- Bjorkelo, B., Einarsen, S., & Matthiesen, S. B. (2010). Predicting proactive behaviour at work: Exploring the role of personality as an antecedent of whistleblowing behaviour. *Journal of Occupational and Organizational Psychology*, 83(2), 371-394. <https://doi.org/10.1348/096317910x486385>
- Bjorkelo, B., Ryberg, W., Matthiesen, S. B., & Einarsen, S. (2008). When You Talk and Talk and Nobody Listens: A Mixed Method Case Study of Whistleblowing and Its Consequences. *International Journal of Organisational Behaviour*, 13(2), 18. Retrieved from [http://pandora.nla.gov.au/pan/10282/20110718-1007/www.usq.edu.au/\\_/media/USQ/Business-Law/Journals/Paper2Bjorkelopdf.pdf](http://pandora.nla.gov.au/pan/10282/20110718-1007/www.usq.edu.au/_/media/USQ/Business-Law/Journals/Paper2Bjorkelopdf.pdf)
- Boyd, D. M. (2004). Friendster and publicly articulated social networking. <https://doi.org/10.1145/985921.986043>
- Boyd, D. M., & Ellison, N. B. (2010). Social network sites: definition, history, and scholarship. *Engineering Management Review, IEEE*, 38(3), 16-31. <https://doi.org/10.1109/emr.2010.5559139>
- Butt, S., & Phillips, J. G. (2008). Personality and self reported mobile phone use. *Computers in Human Behavior*, 24(2), 346-360. <https://doi.org/10.1016/j.chb.2007.01.019>
- Cassematis, P. G., & Wortley, R. (2013). Prediction of Whistleblowing or Non-reporting Observation: The Role of Personal and Situational Factors. *Journal of Business Ethics*, 117(3), 615-634. <https://doi.org/10.1007/s10551-012-1548-3>
- Correa, T., Hinsley, A. W., & De Zuniga, H. G. (2010). Who interacts on the Web?: The intersection of users' personality and social media use. *Computers in Human Behavior*, 26(2), 247-253. <https://doi.org/10.1016/j.chb.2009.09.003>

- Costa Jr, P. T., & McCrae, R. R. (1992). Reply to Ben-Porath and Waller. *Psychological Assessment*, 4(1), 20-22. <https://doi.org/10.1037//1040-3590.4.1.20>
- Costa Jr, P., Terracciano, A., & McCrae, R. R. (2001). Gender differences in personality traits across cultures: robust and surprising findings. *Journal of Personality and Social Psychology*, 81(2), 322. <https://doi.org/10.1037/0022-3514.81.2.322>
- Digman, J. M., & Inouye, J. (1986). Further specification of the five robust factors of personality. *Journal of personality and social psychology*, 50(1), 116. <https://doi.org/10.1037/0022-3514.50.1.116>
- Dozier, J. B., & Miceli, M. P. (1985). Potential predictors of whistle-blowing: A prosocial behavior perspective. *Academy of Management Review*, 10(4), 823-836. 10.5465/amr.1985.4279105
- Furnham, A. (2008). *Personality and intelligence at work: Exploring and explaining individual differences at work*. Routledge.
- Gao, J., & Greenberg, R. (2015). Whistleblowing intentions of lower-level employees: The effect of reporting channel, bystanders, and wrongdoer power status. *Journal of Business Ethics*, 126(1), 85. <https://doi.org/10.1007/s10551-013-2008-4>
- Golbeck, J., Robles, C., Edmondson, M., & Turner, K. (2011). *Predicting Personality from Twitter*. Paper presented at the Privacy, security, risk and trust (passat), 2011 ieee third international conference on and 2011 ieee third international conference on social computing (socialcom). <https://doi.org/10.1109/passat/socialcom.2011.33>
- Graziano, W., & Eisenberg, N. (1997). Agreeableness: A dimension of personality. In R. Hogan, J. Johnson, & S. Briggs (Eds.), *Handbook of personality psychology* (pp. 795-824), San Diego, CA: Academic Press. <https://doi.org/10.1016/b978-012134645-4/50031-7>
- Greenberg, J., Ashton-James, C. E., & Ashkanasy, N. M. (2007). Social comparison processes in organizations. *Organizational Behavior and Human Decision Processes*, 102(1), 22-41. <https://doi.org/10.1016/j.obhdp.2006.09.006>
- Griffith, S., & Liyanage, L. (2008). *An introduction to the potential of social networking sites in education*. Paper presented at the Emerging Technologies Conference 2008. Retrieved from <https://ro.uow.edu.au/etc08/9>
- Gundlach, M. J., Douglas, S. C., & Martinko, M. J. (2003). The decision to blow the whistle: A social information processing framework. *Academy of Management Review*, 28(1), 107-123. 10.5465/amr.2003.8925239
- Hochwarter, W. A., Kacmar, C., Perrewe, P. L., & Johnson, D. (2003). Perceived organizational support as a mediator of the relationship between politics perceptions and work outcomes. *Journal of Vocational Behavior*, 63(3), 438-456. [https://doi.org/10.1016/s0001-8791\(02\)00048-9](https://doi.org/10.1016/s0001-8791(02)00048-9)
- Huberman, B. A., Romero, D. M., & Wu, F. (2009). Crowdsourcing, attention and productivity. *Journal of Information Science*, 35(6), 758-765. <https://doi.org/10.1177/0165551509346786>
- Hughes, D. J., Rowe, M., Batey, M., & Lee, A. (2012). A tale of two sites: Twitter vs. Facebook and the personality predictors of social media usage. *Computers in Human Behavior*, 28(2), 561-569. <https://doi.org/10.1016/j.chb.2011.11.001>
- Jones, T. M. (1991). Ethical decision making by individuals in organizations: An issue-contingent model. *Academy of Management Review*, 16(2), 366-395. <https://doi.org/10.5465/amr.1991.4278958>
- Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, 86(1), 80. <https://doi.org/10.1037/0021-9010.86.1.80>
- Klaas, B. S., Olson-Buchanan, J. B., & Ward, A. K. (2012). The Determinants of Alternative Forms of Workplace Voice An Integrative Perspective. *Journal of Management*, 38(1), 314-345. <https://doi.org/10.1177/0149206311423823>
- LePine, J. A., & 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(2), 326. <https://doi.org/10.1037/0021-9010.86.2.326>
- Lievens, F., Chasteen, C. S., Day, E. A., & Christiansen, N. D. (2006). Large-scale investigation of the role of

- trait activation theory for understanding assessment center convergent and discriminant validity. *Journal of Applied Psychology*, 91(2), 247. <https://doi.org/10.1037/0021-9010.91.2.247>
- McCrae, R. R., & Costa Jr, P. T. (1997). Personality trait structure as a human universal. *American psychologist*, 52(5), 509. <https://doi.org/10.1037/0003-066x.52.5.509>
- McElroy, J. C., Hendrickson, A. R., Townsend, A. M., & DeMarie, S. M. (2007). Dispositional factors in internet use: personality versus cognitive style. *MIS quarterly*, 809-820. <https://doi.org/10.2307/25148821>
- Miceli, M. P., Near, J. P., Rehg, M. T., & Van Scotter, J. R. (2012). Predicting employee reactions to perceived organizational wrongdoing: Demoralization, justice, proactive personality, and whistle-blowing. *Human Relations*, 65(8), 923-954. <https://doi.org/10.1177/0018726712447004>
- Moore, K., & McElroy, J. C. (2012). The influence of personality on Facebook usage, wall postings, and regret. *Computers in Human Behavior*, 28(1), 267-274. <https://doi.org/10.1016/j.chb.2011.09.009>
- Myers, D. G., & Lamm, H. (1976). The group polarization phenomenon. *Psychological Bulletin*, 83(4), 602. <https://doi.org/10.1037/0033-2909.83.4.602>
- Nayir, D. Z., & Herzog, C. (2012). Value orientations as determinants of preference for external and anonymous whistleblowing. *Journal Of Business Ethics*, 107(2), 197-213. <https://doi.org/10.1007/s10551-011-1033-4>
- Newness, K., Steinert, J., & Viswesvaran, C. (2012). Effects of Personality on Social Network Disclosure: Do Emotionally Intelligent Individuals Post Inappropriate Content? *Psihologijske Topics*, 21(3), 473-486. Retrieved from <https://hrcak.srce.hr/file/140679>
- Park, H., & Blenkinsopp, J. (2009). Whistleblowing as planned behavior—A survey of South Korean police officers. *Journal of Business Ethics*, 85(4), 545-556. <https://doi.org/10.1007/s10551-008-9788-y>
- Park, H., Blenkinsopp, J., & Park, M. (2014). The Influence of an Observer's Value Orientation and Personality Type on Attitudes Toward Whistleblowing. *Journal of Business Ethics*, 120(1), 121-129. <https://doi.org/10.1007/s10551-013-1908-7>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879. <https://doi.org/10.1037/0021-9010.88.5.879>
- Robinson, S. N., Robertson, J. C., & Curtis, M. B. (2012). The effects of contextual and wrongdoing attributes on organizational employees' whistleblowing intentions following fraud. *Journal of business ethics*, 106(2), 213-227. <https://doi.org/10.1007/s10551-011-0990-y>
- Ross, C., Orr, E. S., Sasic, M., Arseneault, J. M., Simmering, M. G., & Orr, R. R. (2009). Personality and motivations associated with Facebook use. *Computers in Human Behavior*, 25(2), 578-586. <https://doi.org/10.1016/j.chb.2008.12.024>
- Rothschild, J. (2008). Freedom of speech denied, dignity assaulted: What the whistleblowers experience in the US. *Current Sociology*, 56(6), 884-903. <https://doi.org/10.1177/0011392108095344>
- Seidman, G. (2013). Self-presentation and belonging on Facebook: How personality influences social media use and motivations. *Personality and Individual Differences*, 54(3), 402-407. <https://doi.org/10.1016/j.paid.2012.10.009>
- Trapnell, P. D., & Campbell, J. D. (1999). Private self-consciousness and the five-factor model of personality: distinguishing rumination from reflection. *Journal Of Personality and Social Psychology*, 76(2), 284. <https://doi.org/10.1037/0022-3514.76.2.284>
- Wang, L., Qu, W., & Sun, X. (2013). An Analysis of Microblogging Behavior on Sina Weibo: Personality, Network Size and Demographics. *Cross-Cultural Design. Methods, Practice, and Case Studies*, 486-492. Springer. [https://doi.org/10.1007/978-3-642-39143-9\\_54](https://doi.org/10.1007/978-3-642-39143-9_54)

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