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## Predictors of Territorial Work Behavior: An Investigation of Individual Differences in Personality Using the HEXACO Model

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PREDICTORS OF TERRITORIAL WORK BEHAVIOR: AN INVESTIGATION OF  
INDIVIDUAL DIFFERENCES IN PERSONALITY USING THE HEXACO MODEL.

by

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B.A. University of South Florida, 2017

A thesis submitted in partial fulfillment of the requirements  
for the degree of Master of Science of Industrial Organizational Psychology  
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## **ABSTRACT**

To date, little research has examined the relationship between territorial work behavior and individual differences in personality. Using hierarchical multiple regression, dimension-level and facet-level personality traits of the HEXACO model of personality were examined to determine whether personality traits predict territorial work behaviors. Based on a sample of 160 workers from Amazon's Mechanical Turk, it was observed that the dimensions of Honesty-Humility, Emotionality, Openness to Experience, and Altruism predicted territorial work behaviors. In addition, facet-level traits from these dimensions, in addition to facets from the Extraversion and Agreeableness dimension, explained variance in each of the territorial behaviors. Furthermore, quantile regression was utilized to examine differences between ordinary least squares regression and quantile regression in order to investigate the utility of quantile regression methods to predict territorial work behaviors and similar constructs. Results from quantile regression analyses provided a more detailed conceptualization compared to OLS regression and found additional regions of significance differing from OLS regression results. These findings, implications, and future research directions are discussed in detail.

**Keywords:** HEXACO; territorial work behaviors; individual differences; personality; quantile regression; facet-level traits

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## INTRODUCTION

Interpersonal conflict is defined as the perception that one's interest(s) are being actively resisted or negatively influenced by another (Wall & Callister, 1995). In 2008, the average U.S. employee spent 2.8 working hours each week dealing with conflict, and it is estimated that conflict costs organizations nearly 360 million dollars in lost work hours (Center for Psychological Press, 2008). The most significant cause of conflict noted in the research by Center for Psychological Press (2008) was "personality clashes/warring egos" (49%, n = 5,000) with 29% of respondents marking the frequency of conflict as "Yes, frequently" or "Yes, always" (pp. 8-10). These findings indicate that interpersonal conflict is one of the most prevalent forms of conflict typically faced in an organization. Although many potential triggers of interpersonal conflict in organizations may exist, one antecedent that has received little attention is territoriality, which is defined as behavioral manifestations of a feeling of ownership towards an object (Brown, Lawrence, and Robinson, 2005). As with other classifications of behavior, territoriality can have adaptive or maladaptive effects that can influence the intensity of interpersonal conflict (Brown, 2009) and can materialize at the organizational, group, or individual level. An example of adaptive territoriality at the group level is when higher levels of group cohesion and task accomplishment occur due to proximity when physical space is the object (Altman & Haythorn, 1967; Starr, 2005). Organizational and individual adaptive territoriality can lead to productive conflict, such as when a territorial infringement results in a civil discussion that resolves role or job ambiguity between two employees. Furthermore, territoriality may help individuals adapt and shape their environment at work to better accomplish goals (Brown, Crossley, & Robinson, 2014). In contrast, maladaptive forms of

territoriality would include knowledge hiding (Peng, 2013) or displays of hostility (Brown et al., 2014), both of which may harm organizational performance or working relationships.

Brown and Robinson (2011) found that an individual's level of entitlement, perceptions of an event, and emotional response predicted reactionary territorial defenses and called for an investigation into other predictors of territorial work behaviors in individuals. A potential predictor of territoriality that has yet to receive attention is personality. Individual differences in personality traits may influence the degree to which an individual's territorial feelings towards an object occur, and influence the reaction an individual has towards a perceived territorial infringement. Therefore, the purpose of this study is to examine whether personality traits predict territorial work behaviors. Specifically, this study will address the HEXACO model of personality, including both dimension level and facet level traits. The rest of the introduction is devoted to familiarizing the reader with territoriality and its related conditions, providing a theoretical background on how individuals engage in territorial behaviors, and present evidence for how and why personality traits can impact this process.

## **Territoriality**

Territorial behavior at work, second to the home, is one of the most common sources of potential conflict for working adults (Wollman, Kelly, & Bordens, 1994). Territorial behavior is a broad category that covers any behavioral display to others that the object associated with the behavior belongs to the communicator of the behavior. Displays are meant to establish or maintain control of an object, with the desired goal to thwart other potential sources of competition for ownership of the same object (Sack, 1983; Maynard-Smith & Price, 1973; Brown, 2009). Objects can be tangible or intangible such as ideas, workspace, information,

relationships, or resources (Brown et al., 2005; Brown & Robinson, 2011; Pierce, Kostova, & Dirks, 2001). Examples of these behaviors in the workplace can be labeling pieces of equipment with an owner's name (e.g., the property of), decorating the workspace with family photos, or titles (e.g., Director of Marketing).

Due to the nature of territorial behavior in the workplace, it is considered to be a socio-behavioral construct with two general types of behavioral displays: marking behaviors and defending behaviors (Brown et al., 2005). See Table 1 for a summary of the territorial work behavior typologies, their primary goals, feature, and examples of observable behaviors. Marking behaviors are characterized by the intent to establish or communicate ownership of an object and can serve one of two purposes: control or identity (Brown et al., 2014). Defending behaviors are characterized as behavioral consequences after an individual perceives ownership or territory over an object as established and focuses more on the protection or control of the object from threats (Brown & Robinson, 2005). The motivational basis for a territorial behavior communicates the goal the individual is working towards with regards to a territorial object either as a claim (marking behaviors) or a readiness to defend (defensive behavior). Identity-oriented marking in the work environment communicates to others the perceptions an individual has towards their self-identity. Examples of these types of displays are pictures in the workplace (e.g., pictures of the individual engaged in their favorite activity or of their family); diplomas or awards; or personalizing their workspace with distinctive items (Brown, 2009). If the “individual's organization may provide one answer to the question, ‘Who am I?’” (Ashforth & Mael, 1989, p. 22), then identity-oriented marking behavior provides one answer to the question ‘Who am I here?’

Control-oriented marking in the workplace is less concerned with identity and personalization and more concerned with possession; its goal is to establish and communicate boundaries or ownership (Brown et al., 2005). As such, control-oriented marking behaviors typically involve marking boundaries with signs or objects or announcing boundaries with verbal or written communication. Control-oriented marking can be used to communicate status or power (Edney, 1974; Sack, 1983), signal affiliation with a group due to proximity (Starr, 2005), promote task accomplishment or social cohesion (Altman & Haythorn, 1967), and provide an attempt to resolve ambiguity with roles, spaces, relationships, or objects (Brown, 2005). Above all, control-oriented marking seeks to ensure that the marked object stays in the ownership of the party who has marked it.

Defending behaviors constitute the second dimension of territorial behaviors which contains two sub-dimensions: anticipatory defending behaviors and reactionary defending behaviors (Brown, 2009). Anticipatory defending behaviors are behavioral displays that are enacted when an individual perceives that his/her territory will be infringed upon and he/she is motivated to maintain ownership over that object or is seeking to undermine competition for that object (Brown, 2009). Examples of anticipatory defenses involve using social support to maintain or regain an object, physical control of an object or space, formal boundary markers, establishing rules or procedures for control of objects, or access prevention (e.g., passwords or lock and key), which has been shown to be the most common anticipatory defending behavior (Brown, 2009, p. 48).

It is important to note that the characteristics of anticipatory defending involve the socio-behavioral display of ownership coupled with the prevention of access or use. The threat of

infringement is largely cognitive and motivated out of a fear of loss that is demonstrated by a pre-emptive attempt to thwart the control or use of a territorial object by another. The behavior then increases the feeling of control and security towards the object, which then alleviates the anxiousness surrounding the fear of loss of control (Brown, 2009). In contrast to anticipatory defenses, reactionary defending behaviors occur after an individual perceives a territorial infringement. These behaviors involve objecting to the control or claiming of an object; reclaiming control or reestablishing security of an object; or a behavioral display of the emotions an individual has towards the infringement (Brown, 2009; Brown et al., 2005).

Table 1  
*Types of Territorial Work Behaviors*

Type	Goal/Motivation	Key Feature	Behavioral Example <sup>a</sup>
Marking Behaviors			
Identity-Oriented	Establishes a relationship with an object that represents individual self-identity beliefs.	Communicates the individual's real or ideal identity to others.	Decorating the workspace with personal photos or objects.
Control-Oriented	Establishes a relationship with an object that enhances an individual's control over that object.	Communicates an object's boundaries, control, or ownership to others.	Writing one's name on an object.
Defending Behaviors			
Anticipatory	Establishes a safeguard to maintain control or ownership over an object.	Proactive response to a felt threat that increases control or restricts access to an object.	Password protecting files.
Reactionary	Response to an infringement or loss of control over an object; typically to restore control or ownership.	Reactive response to a felt infringement or attempt to gain control over an object.	Expressions of disapproval following an infringement.

*Note.* Adapted from "Claiming a corner at work: Measuring employee territoriality in their workspaces," by G. Brown, 2009, *Journal of Environmental Psychology*, 29, p. 48.

**Positive outcomes of territorial work behaviors.** Territorial work behaviors can be adopted by individuals, groups, or the larger organization. Early research and theory exploring territorial human behavior noted territoriality's ability to communicate dominance and status in a hierarchy (Sommer, 1961), legitimize other's territorial claims (Sommer & Becker, 1969), endow a sense of comfort onto the individual (Roos, 1968), and potentially to resolve conflict (Edney, 1974). The territory that a party is allowed to claim or control communicates to others the role they play (Sommer, 1961), identity with specific sub-groups within an organization (Rosseau, 1998), and increase feelings of ownership over the territory (Brown & Zhu, 2016). In studying groups, Altman and Haythorn (1967) found that group cohesion and performance on tasks increased when the group was socially isolated. Their findings indicated positive outcomes of territorial behaviors when individuals with task or role interdependence align their territories in the proximity of one another. So long as territorial behavior serving identity purposes does not inflict stress or encroach on another's territory, it is likely that these outcomes provide a beneficial means for individuals or groups to express themselves and contribute to group cohesiveness, organizational loyalty, and adoption of culture and goals to which the territory is linked. (Altman & Haythorn, 1967; Ashforth & Mael, 1989; Brown, 2005; Brown, Brown, & Perkins, 2004; Brown & Zhu, 2016).

Brown et al. (2005) and Taylor (1998) suggested that territoriality can serve as a means to actively cope with certain stimuli in the environment. Taylor (1998) explained that territoriality could arise as a form of coping with stress due to human territorial behaviors enhancing (or increasing the perception of) environmental control or through an ecological means to maintain environment-behavior congruence and setting maintenance (e.g., a sign that says authorized personnel only). Similarly, Costa (2012) demonstrated that territorial marking serves to reduce



conflict and anxiety through an individual increasing the predictability of other people's behavior in that space and their interaction patterns with others as well as imposing control over their environment to achieve their goals with minimal interference.

**Negative outcomes of territorial work behaviors.** Despite the potential positive effects of some forms of territorial behavior, there may also be a number of negative outcomes as well. Suggesting that engaging in territorial behaviors can form a sort of self-fulfilling prophecy, Brown et al. (2005) theorized that territoriality will increase as organizational members are isolated from one another. Brown et al. (2005) also proposed that a preoccupation with a territorial object will detract from an organizational member's in-role performance. Territoriality can also have caustic effects on groups or organizations in addition to individuals. In a study conducted by Wollman, Kelly, and Bordens (1994), the authors found a negative relationship between an individual's perception of territorial invasion (territorial infringement) and job satisfaction. Spencer and Steers (1981) found that conditions of low satisfaction and low performance in employees had the highest probability of turnover. These examples provide evidence for how territoriality can affect both individual and organizational level outcomes if Brown et al.'s (2005) proposition that increases in territorial preoccupation will lead to decreased in-role performance is correct.

In studying peer perceptions of territorial behavior, Brown and Zhu (2016) found that anticipatory defending behaviors were related to peer ratings of poor performance and perceived lack of power. Basing their conclusions on affective events theory, the authors suggested that the defending behaviors enacted by the individual were an attempt to force control on others which elicited a negative reaction in their colleagues. These behaviors are seen as an attempt to keep or

gain power and resulted in their peers seeing those engaging in the behavior as less powerful. Brown and Baer (2015) demonstrated that control-oriented marking negatively effects creativity and feedback but only under certain conditions. Across two studies the authors found that control-oriented marking reduces creativity and novelty in solicited feedback, but does not affect the utility of it (Brown & Baer, 2015). The authors suggested that claimed objects solicit ordinary, easily implemented ideas but cause genuinely novel or innovative ideas to be suppressed. Specifically, in Study 1, the authors found that when control-oriented marking effects the feedback-giver's intrinsic motivation; both the usefulness and novelty of the feedback suffers (Brown & Baer, 2015, p. 1790). Li, Yuan, Ning, and Li-Yang (2015) examined the relationship between both common and key knowledge sharing and feelings of ownership over knowledge. They found that the more an individual felt ownership and control over knowledge, the less knowledge they shared. While these authors did not directly measure territoriality, they did capture behavior that is associated with territoriality (knowledge withholding) and used a related condition of territoriality through measuring ownership.

Similar to knowledge withholding, Peng (2013) looked at a specific behavioral outcome of territoriality in the form of knowledge hiding, and demonstrated that territoriality fully mediated the relationship between knowledge-based psychological ownership and knowledge hiding. This finding is important because the measure of territoriality utilized in the study focused on the cognitive aspect of being preoccupied with defending an individual's territory, which in this case, was their knowledge. This implies that the state of feeling like an object belongs to you is not merely enough to trigger a territorial behavior. It is the cognition that someone else will use your object and that it must be protected that causes an individual to engage in a territorial behavior. Peng (2013) further discovered that organizational-based

psychological ownership moderates the relationship between territoriality and knowledge hiding. Specifically, high organization-based psychological ownership attenuated the relationship between territoriality and knowledge hiding. Peng's (2013) findings suggest that some forms of ownership may be protective (e.g., organization-based ownership) against other forms of ownership (e.g., knowledge-based ownership). However, at this time, the exact motivations for the cognitions are still unclear. Peng (2013) suggested that the participants engaged in territorial behavior as a self-protection mechanism but the motivational component of territoriality has only been theorized (p. 409). These findings can also extend to organizational groups and suggest that organizational silos may be caused, in part, by territoriality.

The environment a territorial individual operates in can exacerbate or placate their behaviors in certain conditions to impact outcomes. Brown et al. (2005) proposed that territoriality may lead to a preoccupation with the territory, which would then lead to relationship neglect with the organization and colleagues resulting in either social fragmentation, self-imposed isolation, or social ostracism (p. 585). Supporting this proposition, Huo et al. (2017) found that territoriality leads to social alienation which then leads to decreases in idea implementation in an organization. Using the norm of reciprocity and social exchange theory, when territorial employees engaged in their behavior and became preoccupied with resources more than cooperation, their peers respond by engaging in negative behaviors (e.g., alienation) which resulted in decreased idea implementation. However, the climate of the organization moderated the relationship between territoriality and alienation. Mastery climates are conceptualized as broader climate of cooperation where employees are rewarded based on individual effort, improvement, and their competence in tasks (Nerstad, Roberts, & Richardsen, 2013). In contrast, a performance climate is conceptualized as a broader climate of

competitiveness, where individuals are motivated by comparing their performance with others (Nerstad et al., 2013). The distinction between a cooperative/competitive climate and mastery/performance climates is that cooperative/competitive climates focus on outcomes or the production aspect of work while mastery/performance climates focus on the reasons employees interpret why rewards are distributed. Nerstad et al. (2013) made this distinction between the two as the *what* (cooperative/competitive) and the *why* (mastery/performance). Huo and colleagues (2017) found that a mastery climate inhibits the relationship between territoriality and alienation while a performance climate enhances it. The findings by Huo et al. (2017) demonstrate that the consequences of territorial work behaviors between individuals are subject to effects from environmental factors and larger social variables, such as social norms within an organization.

Considering Brown's (2009) results in territorial work behaviors, it is possible that these behaviors present both adaptive and maladaptive forms behaviors and the quality of these behaviors are influenced by personality traits. However, individual differences that play a role in the propensity to engage in specific territorial workplace behaviors have not received much attention. Therefore, the research goal of this thesis is to investigate personality traits that may enhance or inhibit an individual to engage in territorial work behavior, in addition to engaging in specific types of territorial work behavior. Previous research by Brown and Robinson (2011) has demonstrated that cognitive appraisal theory explains reactionary territorial defenses used by individuals in the workplace. Appraisal theory offers a medium for individual differences to influence territorial work behaviors and possibly explain the employment of certain sub-types of behaviors over others. The next sections will familiarize the reader with appraisal theory as well as explain the links between appraisal theory and territoriality in addition to appraisal theory and personality.

## **Appraisal Theory**

When an individual experiences an emotional reaction arising from a cognition, that emotion is driven by our appraisal or attribution of the cause of that cognition (Frijda, 1987, p. 116). Appraisal theory describes a primary and secondary cognitive process of how an individual perceives and gives meaning to a stimulus in their environment (Frijda, 1987; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Lazarus, 1991b; Lazarus & Smith, 1988). The primary appraisal process is concerned with the meaning a stimulus has to the individual. The parts that make up primary appraisal are the degree of relevance the individual perceives the action to have towards a goal, the congruence the individual perceives the action to have towards the goal (helpful or hurtful), and the amount of worth that goal has to the individual (Folkman et al., 1986; Lazarus, 1991b; Lazarus & Smith, 1988). The secondary appraisal process involves perceptions of responsibility or accountability for the action and the amount of control the individual has over the outcome. This includes the degree of influence the individual appraising the situation has over its outcome, the possible consequences of exerting control, and the capacity the individual has to successfully cope (Folkman et al., 1986; Lazarus, 1991b; Lazarus & Smith, 1988). If characteristics of the situation are appraised as something that cannot be controlled or changed for the better, that individual will likely employ emotion-focused coping which is focusing coping resources on dealing with the stressful emotions from the stressor/situation (Folkman & Lazarus, 1980; Folkman et al., 1986). However, if the same unwanted situation is appraised as having the potential to be altered to achieve a more positive outcome, then problem-focused coping, focusing resources on the source of the stressor/situation, will likely be employed (Folkman & Lazarus, 1980; Folkman et al., 1986).

Lazarus and Smith (1988) theorized that when an individual reconciles the two “contradictory” forces between their personal stake and environmental consequences, a balance must be struck. A failure to take into account personal goals or possible consequences would result in a threat to survival or well-being (Lazarus & Smith, 1998, p. 285). Lazarus (1995) suggested that the lack of insight about the motivational factors behind an individual’s appraisal of a situation determines whether or not they are defensive (p. 254). Defense of ego or personal beliefs and values could trigger defensive motivations when the situation is appraised as a threat (Lazarus, 1995). Given that territoriality has implications for an individual’s sense of self-efficacy, self-identity, responsibility/accountability, ownership, and control over the environment, territorial claiming and defenses have the potential to result from threat appraisals or from internal calls to cope with the threat.

Frijda (1987) investigated how appraisals elicit actions (described as action tendencies) in individuals and found that most emotions arouse intuitive action tendencies. For example, situations that are appraised to be of interest to the individual and possess the potential to enhance self-esteem elicit an approach response. Unpleasant and uncontrollable events can lead to antagonism or anger while unpleasant events that are controllable can lead to dominance behaviors or irritation (Fridja, 1987, pp. 140-141; Folkman et al. 1986). Roseman’s (1991; 1996) work has particular implications for territoriality. Roseman (1996) demonstrated that the appraisal of motive consistency (which can be conceptualized as goal consistency or goal congruence) differentiates between positive and negative emotions. Simply put, if a stimuli in the environment facilitates goal accomplishment, positive emotions will result. Hurtful stimuli would produce a negative emotion. Since it is likely that a territorial infringement will not be welcomed, defensive behaviors will likely arise from a negative emotion. Secondly, Roseman’s

(1996) findings echo Frijda's (1993) findings in that little deliberation goes into appraising a situation as positive or negative but merely perceiving as a gain or loss. It should then be somewhat intuitive that any infringement on one's territory would be perceived as a loss. Finally, the agency appraisal, which is the appraisal of who is responsible for the action or stimuli (e.g., self, other, or circumstances) indicated that circumstances played little role in eliciting emotions and other-oriented events brought about affection, anger, contempt, or dislike (Roseman, 1996, p. 264). This last observation shows that territorial infringement typically will not elicit positive emotions and should be approached with tact as it will likely be appraised negatively and arouse a coping response in the individual.

**Territoriality and Appraisal Theory.** As a territorial infringement is appraised, the appraisal is likely to be unpleasant. If the infringer is assessed to have the potential to remove the control of the territory from the individual, the primary appraisal will likely be considered as a threat. If the infringer has already gained control or removed a portion (or entirety) of the individual's territory it will likely be perceived as harm in the form of a loss (Lazarus & Folkman, 1987). Appraisal theory then suggests that the attribution of the amount of control the individual has over thwarting the infringement, the possible environmental consequences of their attempt to thwart or object to the infringement, and the degree of blame the infringer is responsible for will dictate whether they engage in problem-focused or emotion-focused coping and what emotions the situation will arouse. Smith and Lazarus (1991) found that the core component of appraisal responsible for arousing anger involves other-accountability (blame directed towards another) while fear and anxiety involves danger or threat with low assessed coping potential. Both include the environmental stimulus possessing personal relevance and goal incongruence. Using the appraisal theory investigated by Kuppens, Van Mechelen, Smits,

and De Boeck (2003), Brown and Robinson (2011) found support for this theory in instances of territoriality. Specifically, anger and goal obstacle predicted direct reactionary territorial defenses while indirect reactionary territorial defenses were predicted by goal obstacle, arrogant entitlement, and anger (p. 219). Reactionary defenses are typically employed after an infringement is perceived to occur and involve a strategy to reassert the claim to the territory, object to the infringement, or to reclaim the territory should an individual lose control or ownership (Brown, 2009). Approaching anger from a social-constructionist point of view Weber (2004) found that blame was a crucial predictor in responses of anger. However, participant responses in Weber (2004) indicated that in the relationship between the angered person and offender, social norms and rules governing anger, and correcting the wrongdoing were factors to consider. Weber (2004) also found that direct, non-hostile responses were deemed as most appropriate in both studies unless the offense involved ego threat which results indicated that a display of power was also deemed appropriate by participants (p. 215). These results indicate that organizations can influence territoriality explicitly through policies or procedures and implicitly through organizational culture.

Weber's (2004) results could explain Brown and Robinson's (2011) findings to a degree. Brown and Robinson (2011) specifically tested anger as a mediator of the relationship between cognitive appraisal and reactionary territorial behaviors. However, anger was found to only partially mediate this relationship. The most common direct reactions to a perceived infringement were "facial expressions to express disagreement or dislike toward the infringer" (82% of responses) and "verbal explanations to the infringer that the territory was already claimed" (79% of responses) (Brown & Robinson, 2011, p. 217). The most common indirect reactionary responses were "complaining to a supervisor" (79% of responses) or "devising a



strategy to reclaim the territory” (70% of responses) (Brown & Robinson, 2011, p. 217). Weber’s (2004) study indicates that social norms and using non-hostile responses were factors to consider when responding to an action that elicited anger. The previously mentioned common responses to an infringement are in line with typical behavior expected of an individual in a professional work environment. However, the lack of full mediation suggests there are other emotions elicited from an infringement than just anger.

Fischer and Roseman (2007) studied the social function of both anger and contempt, which may explain why Brown and Robinson (2011) only found partial mediation. The goals of an anger response were associated with coercion to attain a desired outcome and alter another’s behavior (Fisher & Roseman, 2007, p. 112). Contempt’s goal is associated with exclusion and avoidance. Individuals who come to believe a person’s transgression cannot or will not change tend to react with contempt and anger. However, if the individuals have a close or intimate relationship, feelings of contempt tend to be inhibited (Fisher & Roseman, 2007, p. 112). Fisher and Roseman (2007) found that in non-intimate relationships, negative attributions or blame when perceptions of control are low are antecedents to contempt. Therefore, judging from Brown and Robinson’s (2011) findings that include avoidance behaviors (exclusion), contempt may partially mediate the rest of the relationship between cognitive appraisals and reactionary territorial behaviors. In the future research section of their discussion, Brown and Robinson (2011) called for investigation into the effect of personality traits on reactionary territorial behavior to be investigated, specifically suggesting that traits associated with aggressiveness or assertiveness may cause a more intense reaction to an infringement (p. 221). This study is a first step into identifying potential personality traits that influence territorial work behaviors. Having reviewed the research that has implications for territoriality and the appraisal process, I will now

introduce how personality impacts this process and the model of personality this study plans to use.

**Personality and Appraisal Theory.** Personality traits are considered stable, unique patterns of behavior in an individual across time and environments from internal processes and external factors (Goetsch & Veltum, 2018). Lazarus and Folkman (1987) suggested that personality differences may influence the quality and intensity of emotions experienced in addition to the variables in the appraisal process (p. 143). Roseman (1991; 1996) found that five appraisal variables influence the intensity and the emotion an individual experienced during the appraisal process: the motivational state (reward or punishment), the situational state (motivator present or absent), the probability (degree of certainty), its legitimacy (deservingness of reward or punishment), and its agency (cause of circumstance) thus opening the door for researchers to look at specific instances where personality traits can influence the emotional reaction to the appraisal process. Larsson (1989) reported that as stressors are introduced, personality traits become significant predictors of both appraisals and coping, more so in weak situations with an ambiguous stressor. Lazarus (1991a) theorized that personality traits might exert a greater influence when appraisals are unconsciously processed, due in part to the lack of internal deliberation. Given that personality is considered to be a characterization of behaviors and thought patterns; Lazarus (1991b) explained that the emotions arising from the appraisal process are what shape the response in the person. Therefore, individual difference in personality should explain variance in primary appraisals (e.g., is it threat to one's goal?), secondary appraisal (e.g., what are my resources for dealing with this?), overall feelings of the stimulus (e.g., is this positive or negative?), and explain variance in the actions the appraisals produce (e.g., do I cope with the problem or the emotion and how?).

The personality model most widely utilized in investigations between appraisals and personality is the Big Five (Goldberg, 1990) and the Five-Factor Model (Costa & McCrae, 1985). The five personality dimensions utilized are Extraversion, Agreeableness, Conscientiousness, Openness to Experience, and Neuroticism (negatively poled) also known as Emotional Stability (positively poled). Investigations into the links between personality, the appraisal process, and the behavioral outcomes of the appraisal process (coping) have shown support for personality explaining variance in the intensity and quality of the appraisal process. Extraversion is typically linked to approach behavior (Neuman, 2014), trust (DeYoung & Gray, 2009; 2010), and experiencing positive stimuli in work and non-work environments (Wearing & Hart, 1996). Agreeableness has predicted approach and trust behavior (Neuman, 2014), rating stress less intensely (Kaiseler, Polman, & Nicholls, 2012) and biased response to a threat (Leikas & Lindeman, 2009). While studies into the effects of Openness to Experience and appraisal theory are few, Komulainen et al. (2014) demonstrated that individuals higher in Openness to Experience had increased reactivity to stressors which they suggested may be an adaptive means to increase creativity in their environment. This finding suggests that Openness does not influence the valence of a stressor (positive or negative) but influences the number (frequency) of stressors.

Much of the research into the appraisal process and personality has involved the dimensions of Conscientiousness and Neuroticism. Neuroticism has associations with the threat and punishment systems of the brain (DeYoung & Gray, 2009; 2010); rating stressors more intensely (Kaiseler et al., 2012); predicts experiencing work and non-work hassles (Wearing & Hart, 1996); opens an individual up to increased vulnerability, reactivity, and negative appraisals to stress (Komulainen et al., 2014); and predicts avoidance coping (Allen, Frings, & Hunter,

2012). Given that Neuroticism is considered to be part of the broader construct Negative Affectivity, which is the tendency to be tense, agitated, and anxious (Nemanick & Munz, 1997), these findings are rather intuitive. Conscientiousness has similarly intuitive findings as well. Individuals high in Conscientiousness appraise situations with more of a personal stake and control over the situation (Kaiseler et al., 2012; Gartland, O'Connor, & Lawton, 2012) resulting in appraising the situation as less negatively (Komulainen et al., 2014) and predicts the use of problem-focused coping (Allen et al., 2012). The previously mentioned findings demonstrate that personality traits can influence the appraisal valence, appraisal quality, and relevance.

Aside from showing that personality traits have a somewhat intuitive influence on the appraisal process, Gartland et al. (2012) utilized a definition of daily hassles that may have implications for territoriality. The definition of daily hassles was taken from O'Connor, Jones, Conner, McMillan, & Fergusons' (2008) definition as "events, thoughts or situations which, when they occur, produce negative feelings such as annoyance, irritation, worry or frustration, and/or make you subjectively aware that your goals and plans will be more difficult or impossible to achieve as a result" (p. S20). Territoriality presents cognitions similar to those associated with daily hassles as demonstrated in Brown and Robinson (2011) that predicted as direct reactions to infringement were predicted by anger and blocking one's goal (goal obstacle) while indirect reactions were predicted by anger, goal obstacle, and arrogant entitlement (p. 219). Personality may influence appraisals involving territorial objects in a variety of situational strengths and is thus likely to result in influencing behavioral reactions to these appraisals. Although there has been no published research to date examining the relationships between territoriality and personality, there is some evidence to suggest that personality traits predict behaviors similar to territoriality.

## **Personality**

Sharing its lexical origins with the Big Five (Goldberg, 1990) and the Five-Factor Model (Costa & McCrae, 1985), the HEXACO-PI (Lee & Ashton, 2004) is a personality inventory covering similar dimensions of the Big Five and Five-Factor Model. After investigating psycholexical personality characteristics in seven languages, the inclusion of a sixth dimension labeled Honesty-Humility was warranted (Ashton et al., 2004). While Goldberg's (1999) International Personality Item Pool (IPIP) and Costa and McCrae's (1992) NEO Personality Inventory-Revised (NEO-PI-R) have been used widely in research, the HEXACO Personality Inventory-Revised (HEXACO-PI-R) developed by Lee and Ashton (2018) presents unique advantages and demonstrated relationships to constructs that have the potential to interact with territoriality. A listing of domain and facet level descriptions for the HEXACO-200 has been provided in Tables 18 and Table 19 in Appendix A.

A common theme between the IPIP, NEO-PI-R, and HEXACO-PI-R are the five dimensions with similar names and characteristics: Extraversion, Emotionality/neuroticism, Agreeableness, Conscientiousness, and Openness to Experience/Intellect. HEXACO's sixth dimension is Honesty-Humility (H) and has been the focus of some controversy as it has a modest relationship with Agreeableness (A) as noted in Ashton and Lee (2010). The parallel between the H and A dimensions was specifically addressed by Ashton, Lee, and De Vries (2014) and again in Lee and Ashton (2018) which demonstrated inter-correlations between dimensions in HEXACO to be much lower than what is typically observed in Five Factor personality inventories (Lee & Ashton, 2018, p. 551). Lee and Ashton (2006) also developed an interstitial scale of Altruism (versus Antagonism) which is characterized in their research as

“tapping helpfulness, soft-heartedness, and sympathy” as well as “fairness and forgiveness” in reciprocity styles (p. 185). The scale is made up of certain items from the Honesty-Humility, Emotionality, and Agreeableness domains. Both Altruism and Honesty-Humility, as well as the other five dimensions in the HEXACO-PI-R, have the potential for explaining unique variance in territorial behaviors and offers an established reliable and valid measure to make inferences from.

**Honesty-humility.** The Honesty-Humility domain of HEXACO measures an individual’s propensity to avoid manipulating others or breaking the rules for personal gain, lack of interest in wealth or luxury, and the absence of a sense of entitlement. Those with low scores in this domain are *likely* to use manipulation, break the rules or norms, feel entitled, and are motivated by personal gain (Lee & Ashton, 2009). This domain, as all domains in HEXACO, is comprised of four facets: Sincerity, Fairness, Greed-Avoidance, and Modesty. A description of each facet is located in Appendix A, Table 19.

In Sheppard and Boon (2012), Honesty-Humility (H) predicted the desirability of revenge above and beyond Agreeableness, lending H scores to be more reliable in revenge appraisals. Lee and Ashton (2012) found similar results with Honesty-Humility showing a stronger relationship with premeditated and calculated revenge than immediate or displaced revenge; whereas Agreeableness predicted no such distinction. Taking into consideration both Lee and Ashton’s (2012) and Sheppard and Boon’s (2012) findings, it is likely that the Honesty-Humility dimension of personality may predict an individual’s propensity to engage in reactionary defending behavior. Bragg and Bowling (2018) used parts of HEXACO’s Honesty-Humility scale to create a measure of trait deceptiveness. Results indicated that trait deceptiveness yielded

a moderate correlation with an overall measure of CWB (Bragg & Bowling, 2018, p. 32). Given that the Honesty-Humility domain has established links to measures of the Dark Triad (Lee & Ashton, 2014), cheating and dishonest behavior (Hilbig & Zettler, 2015), and plays a role in moderating the relationship between CWBs and job insecurity (Chirumbolo, 2015), it is likely that low scores in Honesty-Humility will be related to territorial work behaviors. Due to the operational definition of Honesty-Humility involving greed, entitlement, and a preoccupation with material items it is unlikely that Honesty-Humility will have an effect on identity-oriented marking as this behavior is primarily associated with communicating aspects of an individual's self-identity. Therefore, no hypothesis will be formulated for identity-oriented marking.

**Hypothesis 1a: Honesty-Humility will be negatively related to control-oriented marking territorial work behaviors.**

**Hypothesis 1b: Honesty-Humility will be negatively related to defending-oriented territorial work behaviors.**

**Emotionality.** Lee and Ashton (2004) use the term Emotionality as a description of a domain similar to emotional stability (also known as neuroticism) in the Big Five and NEO-PI-R personality inventories (Costa & McCrae, 1985; Goldberg, 1990). High scores on the Emotionality scale indicate a higher likelihood of experiencing anxiety, fear, empathy, attachment, and a greater need for social support and connection. Conversely, those with low scores are not easily deterred by fear, worry less, and are more detached from others (Lee & Ashton, 2009). Facets of Emotionality on the HEXACO-PI-R are Fearfulness, Anxiety, Dependence, and Sentimentality. A complete description of each facet is located in Appendix A, Table 19.

Emotionality (also including related terms like neuroticism and emotional stability) has been demonstrated in research that: mood instability is a distinct feature (Bowen, Balbuena, Leuschen, & Baetz, 2012), is a broader conceptualization of negative affectivity (Nemanick & Munz, 1997), and is a representation of negative affect across time (Miller, Vachon, & Lynam, 2009). Neuroticism and negative affect both have a long and established relationship with workplace stress (see Bowling & Jex, 2013). However, HEXACO's operationalization of Emotionality is distinct from previous conceptualizations of similar dimensions in other lexical personality theories. Emotionality in the HEXACO-PI-R places toughness and sensitivity at opposite poles (low and high, respectively) and does not include irritability or temperamentalness content in contrast to emotional stability (Lee & Ashton, 2004). An investigation into the factor structure of the Eysenck Personality Inventory neuroticism sub-scale indicated that three factors emerged with mood instability, anxiety, and low mood as appropriate labels for each factor (Bowen et al., 2012). While the instability/irritability aspect of other lexical personality traits (neuroticism and emotional stability) is not captured in HEXACO Emotionality, it is captured in facets of Agreeableness in the HEXACO-PI (Lee & Ashton, 2004, p. 333). In a footnote in their study, Lee and Ashton (2004) urged readers to understand the label of Emotionality as one's propensity to display vulnerability or possess a sensitivity (p. 333).

While Emotionality in the HEXACO-PI-R is missing the mood instability component of other conceptualizations of personality, the ground it does cover seems to be adequate for predicting territorial behaviors. Lee and Ashton (2009) described high scores in Emotionality's facets as possessing a preoccupation with relatively minor problems (anxiety) and lacking self-assuredness and self-efficacy to deal with problems alone (dependence). However, those with high scores on Emotionality are also considered to have empathy for the feelings and needs of



others along with strong emotional attachment to others (sentimentality). These facets may “compete” with one another and possibly obscure results. Recall that during the primary appraisal process, the individual decides the degree of congruence, importance, and relevance some action in their environment has to a goal. It is likely that the fearfulness and anxiety facets of Emotionality will influence the primary appraisal process towards negative emotions (due to higher anxiety) and as a threat (due to higher fearfulness). During secondary appraisal the individual takes stock of their resources for coping and the situational factors in the scenario like agency (blame) and consequences for different types of responses. This is the point where there is likely to be obfuscating effects in Emotionality as HEXACO operational definitions of Emotionality include dependence and sentimentality. High scores in Emotionality will likely place greater stock in social support as a response which has been shown to be a means of reactionary defending (Brown, 2009). The facet of sentimentality also contributes to an individual’s altruism and higher scores in this facet of Emotionality may indicate high levels of empathy and perspective-taking (Lee & Ashton, 2006), causing the individual to inhibit a territorial response.

Looking to the literature for a resolution of this ambiguity, research in Emotionality’s links to risk-taking has received some attention. Results have indicated that Emotionality and risk-taking have a negative relationship (De Vries, De Vries, & Feij, 2009; Ashton, Lee, Pozzebon, Visser, & Worth, 2010; Weller & Thulin, 2012). Should the response of a threat of infringement or reaction to an infringement be judged as a risk during the secondary appraisal process, high scores in Emotionality would stifle a defensive behavior where low scores will likely encourage it. In Sorić, Penezić, & Burić, (2013) Emotional Stability (positive-poled Emotionality) was the only significant Big Five predictor across the four dependent variable

situations consisting of unhappy, angry, anxious, or humiliating emotional reactions to situations. This was after appraisals of control (self-efficacy) and value (the value of learning) in addition to emotional regulation strategies of reappraisal and suppression. Given the research demonstrating the links between negative affect and Emotionality (De Vries, Pathak, Van Gelder, & Singh, 2017), the strong negative correlations with IPIP imperturbability (Lee & Ashton, 2004), strong correlations with neuroticism (Ashton, Lee, & De Vries, 2014) high scores in Emotionality will likely predict high territorial work behaviors due to neuroticism's links to stress (Bowling & Jex, 2013) and counterproductive work behavior (Spector, 2011).

Identity-oriented marking is primarily associated with communicating aspects of an individual's self-identity and group affiliation. Emotionality's operational definition involves fear of physical danger, disposition towards anxiety, and attachment to others. These effects will likely produce an obfuscating effect that will render the dimension insignificant due to differences in the directions of prediction and their significance in Emotionality's facets. Therefore, no hypothesis will be formulated for identity-oriented marking.

**Hypothesis 2a: Emotionality will be positively related to only control-oriented marking territorial work behaviors.**

**Hypothesis 2b: Emotionality will be positively related to defending-oriented territorial work behaviors.**

**Extraversion.** The HEXACO-PI-R operationalizes Extraversion as an individual's feelings of self-esteem, the level of confidence they have in group settings, their enjoyment of social functions, and their level of "enthusiasm and energy" (Lee & Ashton, 2009). Extraversion,

like other HEXACO-PI-R traits, is comprised of four facet-level traits: Social Self-Esteem, Social Boldness, Sociability, and Liveliness. A complete description of each facet is located in Appendix A, Table 19. Looking towards the literature on maladaptive behavior, Extraversion has demonstrated links to bullying (van Geel, Goemans, Toprak & Vedder, 2017); narcissism (Furnham, Richards, Rangel, & Jones, 2014); is associated with drive, assertiveness, and behavioral approach system (BAS) sensitivity (De Young & Gray, 2009); and social anxiety (DeWall, Deckman, Pond, & Bonser, 2011). The role of low Extraversion in social anxiety is of special interest as it has implications for territoriality. DeWall et al. (2011) highlighted the role of social exclusion in socially anxious people and their sensitivity to “signs of acceptance” that follow feelings of exclusion as a nonconscious coping response (pp. 1004-1005). It is in this window following social exclusion that the marking behaviors of territoriality, perceptions of infringement, or self-preservation inspired anticipatory defenses could occur. De Wall et al. (2011) also noted that individuals who feel socially excluded are less likely to behave prosocially, but these behaviors are nuanced and highly varied.

A concern similar to Emotionality and territoriality exists with regards to Extraversion and has been demonstrated in research between Extraversion and deviance. Hastings and O’Neill (2009) produced evidence that the excitement-seeking facet of Extraversion in the IPIP was related to workplace deviance while the friendless facet of the IPIP Extraversion measure had a negative correlation of nearly the same magnitude. The authors concluded that these opposing forces within the Extraversion dimension are the reason why domain-level relationships often show insignificant results when studied, with Spector (2011) echoing this finding between Extraversion and counterproductive work behavior as well (pp. 346-347). As with Emotionality, it is expected that particular facets of Extraversion will show significant relationships with

territoriality and offer incremental predicative capability above domain level traits. These hypotheses are discussed in detail in the Research Question 1 section. Considering that the HEXACO-PI-R operationalizes Extraversion more from a social perspective and less so on assertiveness and excitement-seeking compared to the NEO-PI-R and IPIP; Extraversion is likely to interact with territorial behaviors on the HEXACO-PI-R through social aspects only. It is likely that high levels of Extraversion will predict marking behaviors due to their social function while high levels of Extraversion will predict defending behaviors due to extraverted individuals comfort with social interactions.

**Hypothesis 3a: Extraversion will be positively related to marking-oriented territorial work behaviors.**

**Hypothesis 3b: Extraversion will be positively related to defending-oriented territorial work behaviors.**

**Agreeableness.** Agreeableness in the HEXACO-PI-R is operationalized as the propensity for one to be tolerant, even-handed, good-natured, considerate, and compromising in interpersonal relationships and exchanges. The facets of the Agreeableness domain are Forgiveness, Gentleness, Flexibility, and Patience. The definitions of each facet can be found in Appendix A, Table 19. The domain of Agreeableness speaks to an individual's interpersonal style with combative/aggressive styles indicated in low scores and kind/amiabile styles indicated in high scores. Those with low scores in Agreeableness tend to be self-centered, hold grudges, evaluate others critically, are quick-tempered, and argumentative (Lee & Ashton, 2009). The interpersonal aspects of HEXACO's Agreeableness facets cover ground that the IPIP and NEO-PI-R cover in Neuroticism and Extraversion, specifically the hostility and moodiness in

Neuroticism and assertiveness in Extraversion (Costa & McCrae, 1985; Goldberg, 1990).

Agreeableness in the big five lexical personality inventories converges with the HEXACO operationalization of Agreeableness in areas of trust, cooperativeness, and sympathy (Costa & McCrae, 1985; Goldberg, 1990; Lee & Ashton, 2004). The Honesty-Humility domain and interstitial scale of Altruism in the HEXACO-PI-R covers the altruistic and moral aspects found in other measures of lexical personality inventories (Costa & McCrae, 1985; Goldberg, 1990; Lee & Ashton, 2004).

Agreeableness has enjoyed considerable attention in the study of maladaptive behavior literature. Low Agreeableness is considered to be the strongest Big Five personality correlate to the Dark Triad and lies at the heart of the antisocial aspects of the Dark Triad constructs (Furnham et al., 2014). It should be noted that there has been evidence that the HEXACO-PI-R domain of Honesty-Humility has been demonstrated to have stronger links to the Dirty Dozen subscales over Agreeableness (Jonason & McCain, 2012). However, the operationalization and similarity between HEXACO Honesty-Humility and Agreeableness compared to Big Five Agreeableness and their corresponding facets could account for the result. In other studies, Agreeableness has also been shown to have associations with interpersonal counterproductive work behaviors (also known as CWB-I or CWB-P) (Berry, Ones, & Sackett, 2007; Hastings & O'Neill, 2009; Spector, 2011), interpersonal abuse (Bolton, Becker, & Barber, 2010), traditional bullying and cyberbullying (van Geel et al., 2017), and when studied as insensitivity (reversed Agreeableness) has been predictive of delinquency (De Vries & Van Gelder, 2013). It should be noted that in many of the previously mentioned studies, Agreeableness demonstrated negative associations in relationships and predictions to the constructs. Given Agreeableness's links to similar interpersonal maladaptive behavior and its capability to affect other traits in predicting

counterproductive work behavior (Bowling, Burns, Stewart, and Gruys, 2011), it is likely that Agreeableness will predict territorial work behaviors. Specifically, low Agreeableness will predict a reactionary defensive behavior, given that low Agreeableness is associated with lexical adjectives such as “stubborn, quick-tempered, and quarrelsome” (Lee, Ashton, & de Vries, 2014).

As discussed previously, identity-oriented marking is primarily associated with communicating aspects of an individual’s self-identity and group affiliation. Agreeableness’s operational definition is concerned with the quality of interpersonal relationships. It is unclear how dimension-level Agreeableness would be associated with a behavior related to self-identity. Therefore, no hypothesis will be formulated for identity-oriented marking.

**Hypothesis 4a: Agreeableness will be negatively related to control-oriented marking territorial work behaviors.**

**Hypothesis 4b: Agreeableness will be negatively related to defending-oriented territorial work behaviors.**

**Conscientiousness.** Conscientiousness, similar to other lexical personality inventories, is operationalized as the propensity for one to be organized, disciplined, accurate, and strive towards perfection (Lee & Ashton, 2009). The facets making up the domain of Conscientiousness in the HEXACO-PI-R are Organization, Diligence, Perfectionism, and Prudence. A complete description of each facet is located in Appendix A, Table 19. Showing support for their initial iteration of the HEXACO-PI, Lee and Ashton (2004) demonstrated that HEXACO Conscientiousness was highly correlated with IPIP Conscientiousness ( $r = .83$ ), the

second strongest relationship behind HEXACO and IPIP Extraversion ( $r = .86$ ).

Conscientiousness has demonstrated links to self-efficacy (Chen, Casper, & Cortina, 2001; Martocchio & Judge, 1997; Pocnet, Dupuis, Congard, & Jopp, 2017) with self-efficacy as one of the three routes towards psychological ownership (Pierce et al., 2001) which may implicate Conscientiousness throughout the process from ownership to territorial behavior. In Dweck's (2017) theory of personality, Conscientiousness is theorized to arise from competence and control needs (p. 702). The proposition of emergent Conscientiousness as a coping strategy motivated by competence and control needs is a possible route that also could explain resultant territorial work behavior.

Given that Conscientiousness concerns the ways individuals manage their behaviors and cognitions through organization, purpose, and control (Costa & McCrae, 1992), this characteristic may have direct implications for territoriality given that territorial behavior has been theorized for individuals to make sense of their environment and ensure social harmony (Edney, 1974). Therefore, Conscientiousness should predict territorial behavior as those high in Conscientiousness will desire higher levels of organization and therefore boundaries. Another route could be an increase in anticipatory defensive behaviors to ensure organization and prudence for job or role requirements. Should a perceived infringement occur, a reactionary behavior will likely follow as an infringement will violate their sense of organization and needs for control.

In the literature, Conscientiousness has been demonstrated to have a stronger, negative relationship with organizational deviance/counterproductive work behavior (CWB) than interpersonal dimensions (Berry et al., 2007) though Bragg and Bowling (2018) did find a

moderate, negative correlation between inappropriate verbal actions and trait self-control which was operationalized as a combination of Conscientiousness and Neuroticism (p. 28). In a study of self-control using both Tangney and Grasmick scales of self-control, De Vries and Van Gelder (2013) found that Conscientiousness explained more than 50% of the total variance. The facet of Conscientiousness, Prudence, resulted in a moderate and positive relationship with both forms of self-control and was discussed as “one of the most important predictors” (De Vries and Van Gelder, 2013, p. 758). This nuanced relationship Conscientiousness has with other constructs like Neuroticism may obscure the relationship between Conscientiousness and territorial behavior. On the one hand, those high in Conscientiousness desire order and control which should increase such behaviors, but on the other, the self-control aspects may inhibit reactionary defenses leading to a possible obscuring of an overall relationship. The concern with self-control inhibiting reactionary defenses also has parallels in the CWB literature as Bolton et al. (2010) demonstrated that Conscientiousness was a negative predictor of sabotage, withdrawal, and CWB-O. Nevertheless, there is a possibility Conscientiousness will have a stronger, positive relationships with control-oriented marking and anticipatory defenses due to the orderliness aspects of Conscientiousness but a negative relationship with reactionary defenses due to the self-control aspects of Conscientiousness.

In a study measuring the direct effect of personality on the appraisal process Gartland, O'Connor, and Lawton (2012) found that Conscientiousness and its lower order facets of Order and Industriousness were positively correlated with primary appraisals of daily hassles as a being stressful. Responsibility, another lower order facet of Conscientiousness, was positively correlated with secondary appraisals. Gartland et al. (2012) found that the facets of Order and Industriousness contribute to the individual perceiving a greater stake in the hassle during the



primary appraisal and the appraisal of more control over the outcome through coping ability in the secondary appraisal due to the Responsibility facet of Conscientiousness (pp. 84-85).

Therefore, it is likely that Conscientiousness will predict both typologies of territorial work behaviors. However, Conscientiousness at the dimension level is unclear how it will relate to identity-oriented marking due to the operational definition of Conscientiousness being closely related to how individuals work towards a goal. It is likely that Conscientiousness will only be related to identity-oriented marking when this behavior is explicitly linked towards achieving a goal at work based on an individual's role. Therefore, no hypothesis will be formed for Conscientiousness and identity-oriented marking.

**Hypothesis 5a: Conscientiousness will be positively related to control-oriented marking territorial work behaviors.**

**Hypothesis 5b: Conscientiousness will be positively related to defending-oriented territorial work behaviors.**

**Openness to experience.** While other measures of lexical personality traits typically conceptualize Openness to Experience as a blend of intellect, creativity, emotionality, and aesthetics (Costa & McCrae, 1985; Goldberg, 1990), the HEXACO-PI-R captures the creative, innovative, and aesthetic side of other personality inventories but departs by measuring the emotive qualities in Emotionality and choosing to leave out intelligence content all together (Lee & Ashton, 2004). High scores on the Openness scale indicate an appreciation for art and nature, an intellectual curiosity, imagination, and an interest in radical propositions (Lee & Ashton, 2009). Facets of the Openness to Experience domain are Aesthetic Appreciation, Inquisitiveness,

Creativity, and Unconventionality. A complete description of each facet is located in Appendix A, Table 19.

While a propensity to entertain or consider radical ideas like open offices or flat organizational structures (concepts that could be seen as a loss of territory) may speak to those higher in Openness to Experience, it is unlikely that this domain will affect territorial work behaviors. Looking towards the literature, most research has found little to no relationship between Openness to Experience and measures of deviance (Berry et al., 2007; Bolton et al., 2010). Hastings and O’Neill (2009) found that narrow-band traits like the Emotionality facet in Big Five Openness measures tend to have stronger relationships than higher order domains. The obfuscating effect was attributed to the factor/dimension-level correlations being weaker than facet-level correlations as Artistic Interests, Emotionality, and Intellect had negative and significant correlations to deviance (Hastings & O’Neill, 2009, p. 291). However, given that HEXACO differs in the operationalization of Openness to Experience compared to the IPIP, and the IPIP was what was used in Hastings and O’Neill’s (2009) study, the HEXACO domain of Openness is not likely to produce a significant relationship with territoriality.

**Interstitial scale: Altruism.** Altruism is an interstitial scale comprised of elements from Honesty-Humility, Emotionality, and Agreeableness in the HEXACO-PI-R (Lee & Ashton, 2006, p. 185). Altruism is operationalized as the tendency to be sympathetic and generous towards others and is contrasted with antagonism (Lee & Ashton, 2006; Lee & Ashton, 2009). A complete description of Altruism is located in Table 18 of Appendix A. In theorizing about potential uses for HEXACO Altruism, Lee and Ashton (2006) proposed that scores low in Altruism “may be associated with an inclination to harm others” (p. 190). While no research has

linked the HEXACO conceptualization of Altruism as a personality or other forms of altruistic behavior to workplace outcomes, research has been conducted into altruism's role in values and behaviors.

There is some debate among researchers as to whether altruistic behavior is driven by personality or situational variables known as dispositional altruism (trait) or situational altruism (state) (Eisenberg et al., 1987; Rushton. 1980). Altruism as a behavior can be induced by intrinsic or extrinsic variables with Carlo, Eisenberg, Troyer, Switzer, and Speer (1991) finding support for this proposition. However, Carlo et al. (1991) noted that those with high scores in the pro-social measures of Altruism were significant predictors of helping in situationally weak manipulations. Persson and Kajonius (2016) investigated the empathy-altruism hypothesis, which states that empathy is the force (antecedent) that drives altruistic behavior (Batson, Lishner, & Stocks, 2015). Persson and Kajonius (2016) demonstrated that empathy accounted for 30% of the variance in altruistic behavior and, when adding a measure of empathy to the Big Five, the addition of empathy accounted for significant incremental variance in values of power, achievement, stimulation, hedonism with empathic concern as a significant negative predictor for all previously mentioned values. The most substantial increases in explained variance were in the values of benevolence and universalism. The addition of empathy incrementally explained 14.9% and 17.9% for universalism and benevolence values with empathic concern acting as a significant, positive predictor for each. Persson and Kajonius's (2016) findings have specific implications for how HEXACO's measure of Altruism may interact with territoriality. In the discussion, Persson and Kajonius (2016) explained that emotional empathy or emotional concern is what drives altruistic behavior (p. 615).

The HEXACO-PI-R measures Altruism using items such as “I try to give generously to those in need.” and reverse scored items like “It would not bother me to harm someone I did not like.” (Lee & Ashton, 2009). Given that the measure of Altruism is aiming more towards empathic concern/affective empathy over perspective-taking/cognitive empathy, the same behaviors and values are likely to be associated with high scores on the HEXACO-PI-R. If a territorial infringement is perceived to have occurred or marking and anticipatory defenses will negatively affect others in the workplace, those with low scores on HEXACO Altruism (indicating antagonism) may be more likely to engage in a territorial behavior due to either higher self-interested values, a higher proclivity to accept harm towards others or a general lack of concern towards colleagues. Due to Altruism’s operational definition and the lack of explicit consequences towards potential harm to others, it is unlikely that Altruism will be related to identity-oriented marking and, therefore, no hypothesis will be formed for identity-oriented marking and Altruism.

**Hypothesis 6a: Altruism will be negatively related to control-oriented marking territorial work behaviors.**

**Hypothesis 6b: Altruism will be negatively related to defending-oriented territorial work behaviors.**

Table 2

*Expected Results between HEXACO Traits and Territorial Work Behaviors*

	Marking Behaviors		Defending Behaviors	
	Identity-oriented	Control-oriented	Anticipatory	Reactionary
Honesty-Humility	(n.s.)	-	-	-
Emotionality	(n.s.)	+	+	+
Extraversion	+	+	+	+
Agreeableness	(n.s.)	-	-	-
Conscientiousness	(n.s.)	+	+	+
Openness to Experience	(n.s.)	(n.s.)	(n.s.)	(n.s.)
Altruism (interstitial)	(n.s.)	-	-	-

*Note.* Expected relationships of personality traits predicting territorial work behaviors. Instances where a relationship is expected to be significant and positive is denoted as “+”. Instances where a relationship is expected to be significant and negative is denoted as “-”. Instances where there is no expected relationship is indicated by “n.s.” in parenthesis.

**Research question 1.** In addition to investigating the predictive ability of personality dimensions have on territorial work behaviors, this thesis will also explore the utility of personality facets in predicting territorial work behaviors. Hastings and O’Neill (2009) discussed that the narrow nature of personality dimension facets provide clearer and more defensible interpretations when describing relationships between traits and criterion (p. 291). As such, facet-level relationships with variables will be explored and near-significant relationships will be used in regression equations to compare the utility of facet-level traits contrasted to dimension-level traits. Second, as discussed previously in the specific personality dimension sections, facets of traits can have effects on dimensions that render them insignificant at the domain level (obfuscation) or possess higher effect sizes when examined (De Vries, De Vries, & Feij, 2009; Paunonen, 1998; Spector, 2011; Weller & Thulin, 2012). Barrick and Mount (2005) stated that personality facets “makes the finer features of each trait more explicit and narrows the range of behaviors represented so they are more similar, which enhances the diagnostic value and offers higher fidelity (predictive accuracy) for specific sets of behaviors” and then offered that dimension-level traits offer an examination of likely behaviors across different environments (p.

367). Therefore, this research will also compare the significance and additional variance explained by facet-level traits with dimension-level traits.

**Research Question 1: How do regression results for the specific territorial work behaviors differ between dimension-level and facet-level personality traits?**

## **METHODS**

### **Study Design**

This thesis conducted an analysis utilizing a survey-based, cross-sectional design. The following section will outline the research process, tools, and procedures as well as the empirical justification for using such methods.

### **Participants and Procedure**

Utilizing G\*Power (version 3.1.9.2) to determine a minimum required sample size to ensure a medium effect size ( $f^2 = 0.15$ ) with an alpha of 0.05, a power of 0.80, and eleven predictors (four controls, six dimensions of the HEXACO-PI-R, plus the interstitial scale) a determination of a minimum of 55 participants was calculated. The medium effect size was determined from meta-analyses into personality traits and CWB by Berry et al. (2007) finding correlations ranging from small to strong effect sizes and the Big Five explaining 10% of the variance in CWB by Scherer, Baysinger, Zolynsky, and LeBreton (2013). However, considering Bosco, Aguinis, Singh, Field, and Pierce (2015) in addition to Gignac and Szodorai (2016) meta-analyses into effect size benchmarks, a desired sample size of 160 participants was estimated. Participants were recruited using Amazon's Mechanical Turk (MTurk) service, which is a pay-for-service platform that is increasingly being utilized to conduct experiments and administer surveys for social science researchers. Berinsky, Huber, and Lenz (2012) conducted a study of the MTurk population and found it to be more representative of the population than convenience samples of university students that typically dominate social science research samples. Berinsky et al. (2012) did caution that demand characteristics play a more influential role due to

participants receiving pay and approval ratings depending on their production of usable data and that researchers should avoid signaling research aims prior to data collection. Other concerns of the MTurk population were investigated by Goodman, Cryder, and Cheema (2012) who found that MTurk workers were significantly less extraverted and emotionally stable as well as being lower in self-esteem compared to a university student sample and community sample.

To minimize any concern for response biases and ensure data quality, only individuals with an approval rating of 97% or higher and at least 500 hits on the MTurk service; over the age of 18; and working at least 30 hours a week in the United States were allowed to participate. Participants were provided with an informed consent form and received instructions on how to complete each scale prior to receiving questions. Additionally, the scales of the HEXACO-PI-R and territorial work behavior were randomized within the survey to control for order effects and techniques such as reverse-coded items and attention checks were utilized within the survey and scales as suggested by Goodman et al. (2012). Any participants that failed two or more of the four attention checks or produced inconsistent responses were excluded from the study. After the participants completed the survey and their responses were checked for quality, they received reimbursement of 2 dollars and 50 cents based on the average completion time of 20 minutes.

## **Measures**

See Appendix B for a complete list of measures and items.

**Territoriality.** Territoriality was measured using Brown's (2009) measure of territorial behaviors. Participants were instructed to rate the frequency of territorial claiming and anticipatory defending behavior they engaged in over the past year on a seven-point Likert-type



scale (1 = *not at all*; 3 = *to a small extent*; 5 = *to a large extent*; 7 = *as much as possible*). Items from Brown's (2009) were adapted in a manner similar to Brown et al., (2014) in that the original items reflected territorial behavior over workspace and the adapted items reflected territorial behavior over an object. An example of this adaptation would be "Wrote my name all over the workspace" (Brown, 2009, p. 48) reworded as "Wrote my name all over the 'object.'"

Reactionary defending behaviors were assessed by supplying the participants a definition of an infringement and asked if anyone had infringed on his or her territory as a yes/no question. If they had not experienced an infringement, participants were instructed to indicate what they would do if someone had infringed on their territorial object. The scale was constructed based on Brown and Robinson's (2011) measure of reactionary defending behaviors and the frequency of the reaction's occurrence in a seven-point Likert-type scale (1 = *not at all*; 3 = *to a small extent*; 5 = *to a large extent*; 7 = *every time*).

**Personality.** Personality traits were measured using Lee and Ashton's (2018) HEXACO-PI-R 200 item inventory. Each of the six personality dimensions has four corresponding facets with eight items each for a total of thirty-two questions per dimension. Along with the six traits, the HEXACO-PI-R also contains an eight-item interstitial scale for Altruism. Participants were asked to rate their level of agreement if a statement describes them on a seven-point Likert-type scale (1 = *strongly disagree*, 7 = *strongly agree*). An example item is "I rarely express my opinions in group meetings."

**Controls.** In keeping with previous territoriality research age, gender, and tenure was controlled for (Brown et al., 2014; Brown & Robinson, 2011; Brown & Zhu, 2016; Han et al., 2015; Li et al., 2015; Peng, 2013; Peng & Pierce, 2015). Gender has been typically controlled for

due to female workers attaching more emotion to an organization, and therefore experience increased ownership due to belongingness (Li et al., 2015) as well as differences between genders in the expression of territoriality (Edney, 1974). Additionally, recent research into gender differences in personality revealed large effect sizes between men and women with the authors suggesting the previous research into gender differences in personality has been subject to “inadequate methodology” (Del Giudice, Booth, & Irwin, 2012, p. 6).

Age was controlled for in territoriality studies by Peng (2013) and Peng and Pierce (2015) by citing a study by Marcus and Schuler (2004) that found that age was a significant predictor in general counterproductive behavior. Age also has effects on personality showing that as age increases Conscientiousness and Agreeableness increases and, for women, Neuroticism decreases (Srivastava, John, Gosling, and Potter, 2003). Tenure has been controlled for in previous studies (Brown et al., 2014; Peng, 2013; Peng & Pierce; 2015) due to the link between longer-tenured workers displaying less counterproductive work behaviors as demonstrated in Gruys and Sackett (2003). Brown et al. (2014) demonstrated that tenure was unrelated to territorial work behaviors. However, it is important to note that Brown et al. (2014) used a sample of 148 full-time adult graduate students and as such, more senior positions may have been excluded from the demographics of the sample.

Spector and Brannick (2011) discussed the misuse of control variables and their lack of justification in research. While there is limited research into the extent the previously discussed control variables have in territorial work behaviors, their covariance in personality and similar constructs such as counterproductive work behaviors has been demonstrated. Due to the exploratory nature and goal of this research, these variables will be controlled for initially to

examine the additional effect of personality to test the hypotheses. As suggested by Spector and Brannick (2011) this study will also examine the outcomes of the analyses without the control variables present (p. 297). Age and both tenure-types were coded as continuous variables, gender was coded as a dummy variable (0 = male; 1 = female).

## **Data Analysis**

Descriptive statistics, internal consistency reliabilities, zero-order correlations, and regression analyses for the study variables was calculated and presented utilizing SPSS version 24. Main effects of personality in predicting territorial work behaviors were analyzed using hierarchical regression by first entering in control variables then, in a separate step, the variables of interest (Aiken & West, 1991). As discussed in Dawson (2014) this allows the reader to easily compare the incremental  $R^2$  and conditional effects at each step. Hypotheses were analyzed by entering controls the first step and then entering the dimensions of the HEXACO model along with Altruism. In an effort to reduce multi-collinearity, facets of the HEXACO model were run individually based on their dimension and then put into a model where only near significant predictors ( $\alpha < .10$ ) from each individual analysis will be used to arrive at a final model. This approach was utilized to reduce the number of predictors (25 facets total) without biasing the model. It is important to note that the analyses are exploratory in nature and there is a lack of psychological theory in identifying the appropriate variables to contain within the model. Statistical theory guiding the identification and selection of variables to include the final facet models are backward elimination, forward selection, information criteria (Akaike and Bayesian), least angle selection and shrinkage operator (LASSO) penalties, and change-in-estimate criteria (Heinze, Wallisch, and Dunkler, 2017, pp. 434-437). The results of this analysis will be

contrasted to forward selection and backward elimination using SPSS. It should be noted that Harrell (2001) cautions against using stepwise regression for variable selection as the models tend to be biased higher than they actually are and interactions between variables tend to be exacerbated.

**Research question 2.** The second research question investigates the utility of more nuanced methods of analysis to illuminate relationships between variables and an outcome. Introduced by Koenker and Bassett (1978), quantile regression extends the linear-regression model by examining the effects of predictors on the conditional-quantile mean instead of the conditional mean of the dependent variable in a sample (Buchinsky, 1998). While it is tempting to examine certain sub-samples of a data set based on specific levels of the dependent variable, Heckman (1979) cautioned against this as it becomes a source of specification error and bias. Instead of disregarding the effects of other levels of the dependent variables in the analysis, quantiles (which can be conceptualized as percentiles) can be set at intervals of the researcher's choosing to understand how each specific quantile of the variables predict the dependent variable(s).

The approach of OLS (ordinary least squares) regression relies on assumptions that have not been demonstrated in reviews of research in individual and group differences (Aguinis, Petersen, and Pierce, 1999). First, one assumption made with OLS regression is that the increase in the predictor variable is the same across the distribution. This would mean that the rate of change is uniform and linear and that the magnitude and significance for each predictor is the same for the entire distribution. In studies examining quantile regression (that does not make this assumption) to OLS regression, this assumption has been unsupported. For example, in studying

suicide ideation with psychiatric outpatients, Rodgers and Joiner (2018) examined the magnitude and significance of seven known predictors of suicide ideation and compared the findings of OLS regression to quantile regression in the .5, .7, and .9 quantiles representing the median (non-existent), low-to-moderate, and strong levels of ideation respectively. The authors found that the magnitude and significance levels of each predictor differed for each quantile and represented a different picture of each variable's contribution when compared to OLS regression. In Cade and Noon (2003) this is described as an unequal variation which is "more than a single slope (rate of change) describing the relationship between a response variable and predictor variables measured on a subset of these factors" (p. 412). This illustrates an advantage for researchers investigating behavior that has distinct manifestations on the tails of a distribution when compared to the typical behavior of individuals around the central area of a sample or when examining predictors for both low, average, and exceptional performers (Li, 2015).

The advantage is that quantile regression can examine each independent variable's predictive value on differing levels (quantiles). A classic example of quantile regression's utility in this aspect is demonstrated in Eide and Showalter (1998) which analyzed predictor variables of school performance. Eide and Showalter (1998) demonstrated that OLS regression only found that school enrollment was a significant predictor for school performance. In contrast, using quantile regression, the .05 quantile (or fifth percentile) of performance was predicted by school enrollment and per-pupil expenditures, the .25 quantile performance was only predicted by enrollment, the .5 (median) and .75 quantiles' performance was predicted by school enrollment and school year length, and the .95 quantile's performance was predicted only by school year length (Eide & Showalter, 1998, p. 348). This presents a unique aspect of quantile regression when compared to OLS regression. If a variable has linear effects across the distribution of a

variable, then the OLS confidence interval of the estimate will contain most, if not all, of the quantile regression estimates. However, if there are any curvilinear effects for a variable, OLS regression is not equipped to estimate this and the coefficient estimate will be sufficiently decreased or insignificant since OLS estimates could be considered a ‘global’ estimate and quantile regression estimates are ‘local’. Simply put, quantile regression offers a more nuanced view of the effects of a variable while OLS is more of a broad view of the effects.

For interpreting research findings to make inferences for populations, quantile regression offers an approach that gives researchers and practitioners a thorough understanding of what variables impact the dependent variable in portions of the distribution instead of the effect on the average level. This has obvious implications for industrial-organizational psychologists studying more extreme levels of behavior such as stress-induced and arousal-related behaviors. It is also possible that quantile regression could be adopted to examine the magnitude and significance of variables for lower and upper quantiles of a distribution when troubleshooting organizational issues like motivation and performance as the effect and significance of a predictor may vary. This aspect of quantile regression’s utility in examining the significance and magnitude of predictors on specific quantiles of an independent variable has been used in developmental psychology (for a review see Petscher & Logan, 2014), economics (for a review see Koenker & Hallock, 2001), as well as medical science and ecology. Li (2015) outlined a process on when and how to choose quantile regression over OLS regression. When theorizing about extreme cases or the “right tail of the distribution,” if the outcome or behavior is not likely to be similar to the mean or the data is not normally distributed, then quantile regression is recommended (Li, 2015, p. 79). In an example, one could think of this as if mean (typical) cases of CWB would not “look” the same as extreme or high scores of CWB; then quantile regression is likely to give a

more accurate estimation and representation than OLS regression. This example using CWB has already been demonstrated recently in research.

Van Zyl and de Bruin (2018) demonstrated a more nuanced picture of personality traits and CWB. The authors utilized quantile regression to demonstrate the relationship between narrow-band personality traits and CWB which included a comparison to OLS regression in. In all instances except one, the variable egotism, quantile regression offered a different picture than OLS regression did in regards to CWB. Specifically, OLS over-predicted CWB in the lower quantiles (lower standings on the trait) and under-predicted CWB in the higher quantiles (higher standings on the trait). Egotism, the only variable whose prediction from OLS regression resembled the same as quantile regression, had a negligible difference between the two. As described by Li (2015), van Zyl and de Bruin (2018) demonstrated their findings by depicting the OLS regression equation overlaid on the quantile regression depiction. Figure 1 displays a portion of the authors' findings highlighting the negligible and blatant differences between the two analysis methods. Given Li's (2015) recommendations and the findings from van Zyl and de Bruin (2018), differences in coefficients and significance in personality traits predicting territorial work behaviors likely exist between extreme cases (those at the tail-ends of a distribution) from those around the center. In an effort to create a more comprehensive and truthful picture of the ability for personality traits to predict behaviors and to explore the possible benefits of using quantile regression over OLS regression, this thesis will also explore the potential of quantile regression with OLS regression similar to Li (2015) and van Zyl and de Bruin (2018).

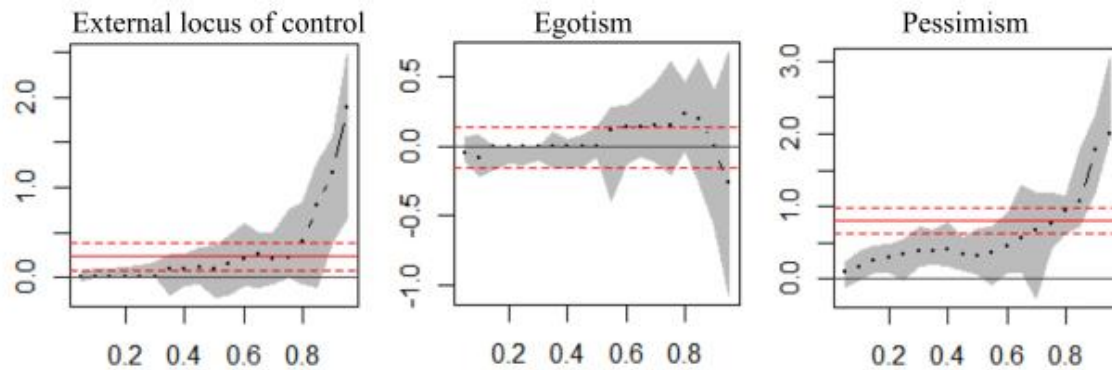


Figure 1. Ordinary Least Squares (OLS) regression and quantile regression comparison on narrow-band traits and their prediction of counterproductive work behavior (CWB). Unstandardized beta estimates are on the y-axis and conditional quantiles (similar to percentiles) are on the x-axis. OLS regression coefficient corresponds to the solid red line, with the dashed red lines representing the 95% confidence intervals. The dotted black line corresponds to the regression coefficient at each conditional quantile with the grey area representing the 95% confidence interval for each conditional quantile. Adapted from "Predicting counterproductive work behavior with narrow personality traits: A nuanced examination using quantile regression." by C. J. van Zyl and G. P. de Bruin, 2018, *Personality and Individual Differences*, 131, 45-50.

Another stark contrast between OLS regression and quantile regression is the assumption of normality. Simply stated, OLS *requires* normality while quantile regression does not. Asymmetrical and skewed distributions are more easily analyzed by quantile regression due to the process of weighting residuals non-parametrically in each quantile, which gives quantile regression an edge over OLS when analyzing samples where errors are not normally distributed. In cases where there is normality across the distribution (homoscedasticity), OLS is suitable provided behaviors will be similar as well. In non-normal residual distribution (heteroscedasticity), quantile regression is better suited to make inferences from an analysis of a sample. The non-parametric weighting of residuals also gives quantile regression estimates more robust protection from outliers without needing to remove outliers from the analysis. Quantile regression residuals are minimized by weighting the absolute residuals through an equation that weights error above the quantile and below the quantile. This process minimizes the error for the



quantile of the dependent variable and gives the  $\varepsilon(\tau)_i$  term for the quantile regression equation which can be thought of as a function that minimizes weighted deviations.

Residual weighting below the quantile:

$$\sum (1 - \tau) | Y_i - \xi_\tau |$$

Residual weighting at or above the quantile:

$$\sum (\tau) | Y_i - \xi_\tau |$$

*Figure 2.* Semi-parametric residual weighting for basic quantile regression.  $\tau$  is the quantile of interest,  $Y_i$  is the vector of observed independent variables, and  $\xi_\tau$  is the dependent variable that corresponds to the quantile of interest. Adapted from M. Buchinsky, 1998, *The Journal of Human Resources*, 33(1), 88-126.

Conceptual OLS regression equation

$$Y_i = \beta_0 + \beta_1 x_{1i} + \dots + \beta_k x_{ki} + \varepsilon_i$$

Conceptual quantile regression equation

$$Q_y(\tau|x_i) = \beta(\tau)_0 + \beta_1(\tau)x_{1i} + \dots + \beta_k(\tau)x_{ki} + \varepsilon(\tau)_i$$

*Figure 3.* Comparison of OLS regression equation to the basic quantile regression equation. In the quantile regression equation,  $Q_y(\tau|x_i)$   $Q_y$  is the conditional quantile of  $\tau$  on the regressor vector  $x_i$  which is equal to the derivative of  $x_i \beta_\theta$ .  $\tau$  is the quantile of interest,  $Y_i$  is the vector of observed independent variables and  $\xi_\tau$  is the dependent variable that corresponds to the quantile of interest. Adapted from B. S. Cade and B. R. Noon, 2003, *Frontiers in Ecology and the Environment*, 1(8), 412-420.

Due to the range of territorial behaviors in reactions to an infringement investigated by Brown and Robinson (2011) ranging from the relatively benign behaviors of facial expressions to express disagreement or dislike (82% participation rate,  $n = 133$ ) to the more extreme end like physical confrontation (36% participation rate,  $n = 133$ ) it is likely that territoriality and responses to territoriality will not be normally distributed and specific instances of extreme behavior (outliers) compared to average behavior may exist. While OLS regression may predict

the average level of territorial work behaviors for a sample, quantile regression will better demonstrate how personality traits explain the full range of behaviors without worrying about outlier bias on the regression line as well as demonstrating the significance and magnitude of personality traits for each quantile of the distribution.

**Research Question 2: Does quantile regression produce a different conceptualization of the predictive ability of personality dimensions in territorial work behaviors than OLS regression?**

For analyzing the quantile regression analyses, comparison of OLS regression coefficients to quantile regression coefficients were made at every .10 quantile as equidistant quantiles tend to make interpretation easier (Hao & Naiman, 2011). Quantile regression analyses were conducted in R (version 3.5.2.) using the QUANTREG and QTools packages. Additionally, the QR plot from the QUANTREG package will be used to depict the quantile regression estimates and OLS estimate similar to previously mentioned research (Li, 2015; van Zyl and de Bruin, 2018).

## RESULTS

### Sample and Scale Descriptives

169 responses were collected in the data collection phase. Nine respondents failed data quality checks and were rejected on the MTurk service for either failing two or more of the four attention checks ( $n=7$ ), blatant careless responding ( $n=1$ ), or failing supply data ( $n=1$ ). This brought the sample size to the original sample size goal ( $n=160$ ). Box plots were utilized to visualize the distribution of the data to determine the suitability of parametric analyses between the raw data, a logarithmic transformation, and a square root transformation. A square root transformation was determined to supply a better distribution in the variables and was utilized in all analyses hereafter. To examine the transformed dataset for influential cases and outliers, the leverage statistics of Mahalanobis distance, Cook's distance, leverage values were calculated in all variables. If a case failed more than six of the 12 analyses (three leverage statistics for four dependent variables), it was flagged for further investigation. This analysis found ten influential cases. Examining DFFit ( $n=1$ ) and DFBeta ( $n=3$ ) statistics found four redundant cases already flagged from the previous analysis. A final sample ( $n=150$ ) was used to perform all major analyses and results were compared to analyses using the full data set in both transformed and raw form to investigate the influence of data cleaning and trimming. A summary table of the differences between the full and trimmed dataset across transformed and raw forms is provided in Table 34 of Appendix A.

A summary of descriptive statistics can be found in Table 3. Of the variables related to the hypotheses, nearly all had internal consistencies above .8, with the majority over .9. Data was transformed using a square root transformation to better distribute the variables normally for

correlation and linear modeling. As seen in Table 3, the possibility of range restriction was apparent as three of the four dependent variables exhibited low average scores.

Table 3  
*Descriptive Statistics of Hypothesis Variables*

Variable	Mean	SD	Observed Range	Possible Range	Internal Consistency
Identity-Oriented Marking	3.49	1.54	1.00 - 7.00	1 - 7	.92
Control-Oriented Marking	2.59	1.48	1.00 - 6.40	1 - 7	.88
Anticipatory Defending	2.78	1.47	1.00 - 6.67	1 - 7	.86
Reactionary Defending	2.68	1.44	1.00 - 6.00	1 - 7	.94
Honesty-Humility	4.91	0.93	2.91 - 6.81	1 - 7	.92
Emotionality	4.32	0.73	2.44 - 6.25	1 - 7	.87
Extraversion	4.60	1.01	1.88 - 6.81	1 - 7	.94
Agreeableness	4.28	0.84	2.09 - 6.34	1 - 7	.92
Conscientiousness	5.18	0.77	2.94 - 6.94	1 - 7	.91
Openness to Experience	4.75	0.83	2.59 - 6.88	1 - 7	.91
Altruism	5.50	0.85	3.13 - 7.00	1 - 7	.75

*Note.*  $n = 150$ . Internal consistency measured using Cronbach's  $\alpha$ .

The final sample was 46.7% female with a mean age of 38 years ( $SD = 11.4$ ), a mean job-based tenure of 9.4 years ( $SD = 8.5$ ), and a mean organization-based tenure of 7 years ( $SD = 6.1$ ). Approximately 49.3% of the sample indicated that they were at least a supervisor and 79.3% of the sample indicated that they were employed in a private, for-profit organization. The mean working hours were 41 hours per week ( $SD = 8.8$ ). 72.7% of the sample identified as White, 8% identified as Black/African American, 6.7% identified as Hispanic/Latino/Spanish, and 5.3% identified as Asian. Considering their frequency of MTurk, 90.7% did not consider MTurk their primary occupation and 42% indicated using the service “occasionally” and 42.7% indicated using it “frequently”. The 9.3% of the sample ( $n = 14$ ) that indicated MTurk was their primary occupation were examined to determine their influence on results due to the possibility of not

representing the population of interest in this study. Upon closer examination it was found that nine participants were supervisors and only three of the 14 were either self-employed or freelance workers, likely working outside of an organization. The other 11 of the 14 were working in occupations that were captured as the population of interest. Nevertheless, their inclusion in the sample only resulted in modest decreases in variance explained by 4% on average and it is likely that they misunderstood the context of the question and considered MTurk their primary occupation recently, made more income through MTurk, or possibly spent more time on MTurk than at work.

Post-hoc power analyses for hypothesis testing and final model exploratory analyses indicated that the power achieved was in excess of .9. Power analyses were conducted using G\*Power (version 3.1.9.2) in the F-test family, Linear multiple regress: Fixed model,  $R^2$  deviation from zero to calculate the effect size.

## **Correlations**

Table 4 contains intercorrelations among all variables. Among the dependent variables of territorial work behavior, strong and significant correlations were demonstrated in all variables with most ranging between .56 and .66 with exception of anticipatory defending and control-oriented marking. In this relationship, a correlation .87 was found. Based on an effect size meta-analysis conducted by Gignac and Szordorai (2016), the effect size of .87 is an extremely rare correlation. Brown (2009) found a similar correlation between control-oriented marking and anticipatory defending as .7 ( $p < .01$ ) and the latent correlation as .83 ( $p < .01$ ). In Brown et al. (2005), the factorial structure was examined and the results from the chi-squared and RMSEA

analyses showed support for a four-factor model over a three-factor model as did factor loadings for individual items demonstrated in Brown (2009).

Table 4

*Zero-order Correlations among Hypothesis Variables.*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Identity-Oriented Marking	-														
2. Control-Oriented Marking	<b>.64**</b>	-													
3. Anticipatory Defending	<b>.57**</b>	<b>.87**</b>	-												
4. Reactionary Defending	<b>.56**</b>	<b>.65**</b>	<b>.66**</b>	-											
5. Honesty-Humility	<b>-.25**</b>	<b>-.36**</b>	<b>-.29**</b>	<b>-.35**</b>	-										
6. Emotionality	0.09	0.0	0.04	-0.03	0.16	-									
7. Extraversion	.13	0.01	-0.04	0.06	-0.03	<b>-.35**</b>	-								
8. Agreeableness	-0.04	-0.07	-0.02	<b>-.22**</b>	<b>.27**</b>	-.13	<b>.38**</b>	-							
9. Conscientiousness	0.04	-.11	-0.08	-0.08	<b>.44**</b>	-0.08	<b>.37**</b>	.13	-						
10. Openness to Experience	<b>.23**</b>	0.04	0.07	0.07	.13	-0.08	<b>.35**</b>	<b>.17*</b>	<b>.45**</b>	-					
11. Altruism	-0.1	<b>-.27**</b>	<b>-.21**</b>	<b>-.29**</b>	<b>.66**</b>	<b>.31**</b>	<b>.21**</b>	<b>.40**</b>	<b>.51**</b>	<b>.37**</b>	-				
12. Gender	0.04	-0.03	-0.05	-0.03	<b>.18*</b>	<b>.32*</b>	-0.03	-0.04	0.07	0.0	<b>.23**</b>	-			
13. Age	-0.04	-0.05	-0.08	-0.04	<b>.24**</b>	-0.03	<b>.28**</b>	<b>.17*</b>	.13	.14	<b>.27**</b>	.12	-		
14. Tenure- Job	0.08	0.04	0.0	0.03	0.09	-0.01	<b>.16*</b>	0.01	<b>.19*</b>	0.0	.11	0.08	<b>.69**</b>	-	
15. Tenure- Organization	0.06	-0.04	-0.01	0.03	<b>.16*</b>	-0.05	.15	.11	.14	0.01	.12	-0.02	<b>.53**</b>	<b>.77**</b>	-

Note.  $n = 150$ . Gender was dummy-coded as Female = 1, Male = 0.\* : Correlation is significant at  $p < .05$  (2-tailed).\*\* : Correlation is significant at  $p < .01$  (2-tailed)

Among the independent variables seen in Table 4, there were moderate to medium size correlations with territorial work behaviors. Specifically, Honesty-Humility demonstrated significant negative correlations across all four variables of territorial work behaviors with control-oriented marking ( $r = -.36, p < .01$ ) and reactionary defending ( $r = -.35, p < .01$ ) being the strongest of the four. Agreeableness had a significant negative correlation with reactionary defending ( $r = -.22, p < .01$ ). Openness to Experience demonstrated a significant moderate correlation with identity-oriented marking ( $r = .23, p < .01$ ) which was unexpected as there was not an expected relationship between Openness and any territorial behavior. The facet of Altruism demonstrated negative significant correlations with control-oriented marking ( $r = -.27, p < .01$ ), anticipatory defending ( $r = -.21, p < .01$ ), and reactionary defending ( $r = -.29, p < .01$ ).

### **Hypothesis Testing**

A summary of hypothesis support can be found in Table 7 for the specific hypothesis for each variable at the end of this section. Regression analyses were conducted among four dependent variables: identity-oriented marking, control-oriented marking, anticipatory defending, and reactionary defending. Age, gender, job-based and organization-based tenure were controlled for in all analyses, however, none of these variables were significant in any step of the analyses for any of the dependent variables. Step one in the analysis involved entering in the control variables for the dependent variable of interest. Step two involved all six dimensions of the HEXACO model plus the interstitial scale of Altruism in the presence of the control variables.



Table 5

*Territorial Marking Regression Results.*

Predictors	Identity-Oriented Marking			Control-Oriented Marking		
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$
Step 1 - Controls						
Sex	0.04	0.07	0.04	-0.03	0.07	-0.04
Age	-0.01 <sup>†</sup>	0.00	-0.19	-0.01	0.00	-0.13
Tenure - Job	0.01	0.01	0.20	0.01	0.01	0.22
Tenure - Organization	0.00	0.01	0.01	-0.01	0.01	-0.13
	<i>R</i> <sup>2</sup> .03			<i>R</i> <sup>2</sup> .02		
Step 2 - Dimensions						
Sex	0.05	0.07	0.05	0.03	0.08	0.03
Age	-0.01	0.01	-0.17	0.00	0.01	0.00
Tenure - Job	0.01	0.01	0.16	0.01	0.01	0.12
Tenure - Organization	0.01	0.01	0.07	0.00	0.01	-0.06
Honesty-Humility	-0.44 <sup>†</sup>	0.24	-0.21	<b>-0.63**</b>	<b>0.25</b>	<b>-0.30</b>
Emotionality	<b>0.65**</b>	<b>0.24</b>	<b>0.26</b>	0.36	0.25	0.14
Extraversion	0.23	0.19	0.13	-0.05	0.19	-0.03
Agreeableness	0.13	0.20	0.06	0.26	0.20	0.12
Conscientiousness	0.12	0.29	0.05	0.20	0.30	0.08
Openness to Experience	<b>0.71**</b>	<b>0.21</b>	<b>0.31</b>	0.34	0.22	0.15
Altruism (Interstitial)	-0.54 <sup>†</sup>	0.31	-0.23	<b>-0.64**</b>	<b>0.32</b>	<b>-0.27</b>
	<i>R</i> <sup>2</sup> / $\Delta$ <i>R</i> <sup>2</sup> .22**/.19**			<i>R</i> <sup>2</sup> / $\Delta$ <i>R</i> <sup>2</sup> .18**/.16**		

Note. *n* = 150.†: *p* < .1,\*: *p* < .05\*\*: *p* < .01

**Identity-oriented marking.** As seen in Table 5, only Emotionality ( $\beta = .26$ ,  $t(149) = 2.74$ ,  $p = .007$ ) and Openness to Experience ( $\beta = .31$ ,  $t(149) = 3.40$ ,  $p = .001$ ) were significant predictors for identity-oriented territorial marking behaviors. However, it is important to note that both Honesty-Humility ( $\beta = -.21$ ,  $t(149) = -1.82$ ,  $p = .071$ ) and Altruism ( $\beta = -.23$ ,  $t(149) = -1.73$ ,  $p = .086$ ) approached significance. Regression analyses were run for the controls and HEXACO scales with and without Altruism to compare the results of Altruism's inclusion. In identity-oriented marking, the inclusion of Altruism depressed the significance and coefficients

of Honesty-Humility ( $\Delta\beta = -.09$ ,  $\Delta p = .07$ ) while its presence increased the standardized coefficient and significance of Emotionality ( $\Delta\beta = .08$ ,  $\Delta p = -.02$ ) and Openness ( $\Delta\beta = .04$ ,  $\Delta p = -.01$ ). However, the inclusion of Altruism contributed to an increase in variance explained by .02, suggesting that the inclusion of Altruism in the model was necessary. In both steps of the analysis in identity-oriented marking, all control variables were not significant.

**Control-oriented marking.** As shown in Table 5, Honesty-Humility ( $\beta = -.30$ ,  $t(149) = -2.51$ ,  $p = .013$ ) and Altruism ( $\beta = -.27$ ,  $t(149) = -2.00$ ,  $p = .048$ ) were both significant negative predictors of control-oriented marking behaviors. Similar to identity-oriented marking, the inclusion of Altruism only reduced the coefficients of Honesty-Humility but Honesty-Humility remained statistically significant. Similarly, the inclusion of Altruism increased explained variance by .03, suggesting that its inclusion was valuable. Post-hoc analyses indicated that Altruism did not affect the significance of other variables when it was not included. No control variables approached significance or demonstrate effect sizes of any utility in either steps.

Table 6

*Territorial Defending Regression Results.*

Predictors	Anticipatory Defending			Reactionary Defending		
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$
Step 1 - Controls						
Sex	-0.04	0.07	-0.04	-0.02	0.07	-0.03
Age	-0.01	0.00	-0.14	0.00	0.00	-0.11
Tenure - Job	0.01	0.01	0.10	0.01	0.01	0.10
Tenure - Organization	0.00	0.01	-0.01	0.00	0.01	0.02
	R <sup>2</sup> .01			R <sup>2</sup> .01		
Step 2- Dimensions						
Sex	0.00	0.07	0.00	0.02	0.07	0.03
Age	0.00	0.01	-0.01	0.00	0.01	0.02
Tenure - Job	0.00	0.01	0.02	0.00	0.01	-0.04
Tenure - Organization	0.00	0.01	0.05	0.01	0.01	0.12
Honesty-Humility	<b>-0.57*</b>	<b>0.25</b>	<b>-0.28</b>	-0.46 <sup>†</sup>	0.24	-0.22
Emotionality	0.44 <sup>†</sup>	0.24	0.18	0.33	0.24	0.13
Extraversion	-0.19	0.19	-0.11	0.20	0.19	0.11
Agreeableness	0.37 <sup>†</sup>	0.20	0.18	-0.26	0.20	-0.12
Conscientiousness	0.30	0.29	0.12	0.13	0.29	0.05
Openness to Experience	0.40 <sup>†</sup>	0.22	0.18	0.39 <sup>†</sup>	0.21	0.17
Altruism (Interstitial)	-0.62 <sup>†</sup>	0.32	-0.27	<b>-0.65*</b>	<b>0.32</b>	<b>-0.28</b>
	R <sup>2</sup> /Δ R <sup>2</sup> <b>.15**/.14**</b>			R <sup>2</sup> /Δ R <sup>2</sup> <b>.20**/.19**</b>		

Note.  $n = 150$ .†:  $p < .1$ ,\*:  $p < .05$ \*\*:  $p < .01$ 

**Anticipatory defending.** In Table 6, regression analyses demonstrated that Honesty-Humility ( $\beta = -.28$ ,  $t(149) = -2.31$ ,  $p = .023$ ) emerged as a significant predictor. However, Emotionality ( $\beta = .18$ ,  $t(149) = 1.81$ ,  $p = .072$ ), Agreeableness ( $\beta = .18$ ,  $t(149) = 1.81$ ,  $p = .072$ ), Openness to Experience ( $\beta = .18$ ,  $t(149) = 1.87$ ,  $p = .063$ ) and Altruism ( $\beta = -.27$ ,  $t(149) = -1.95$ ,  $p = .053$ ) approached significance. Similar to the previously mentioned analyses, the inclusion of Altruism exhibited a .02 increase in variance explained and only slightly suppressed the significance and coefficients of Honesty-Humility, warranting its inclusion. At no point in either step did any of the control variables approach or breach significance.

**Reactionary defending.** Only Altruism ( $\beta = -.28$ ,  $t(149) = -2.07$ ,  $p = .041$ ) emerged as a significant predictor for reactionary defending as shown in Table 6. Honesty-Humility ( $\beta = -.22$ ,  $t(149) = -1.87$ ,  $p = .06$ ) and Openness to Experience ( $\beta = .17$ ,  $t(149) = 1.82$ ,  $p = .072$ ) were between a  $p$ -value of .05 and .10. In post-hoc analyses, the inclusion of Altruism contributed to a .03 increase in variance explained but caused Honesty-Humility to be suppressed below the cut-off  $\alpha$  level of .05. Additionally, when Altruism was excluded, Agreeableness was a significant predictor ( $\beta = -.18$ ,  $t(149) = -2.03$ ,  $p = .044$ ). In the presence of Altruism, Openness was rendered insignificant. The theoretical reasons for this will be discussed in the Discussion section. At no point in the steps of the analyses did any of the control variables approach significance or demonstrate an effect size of utility.

**Control variables.** As discussed in the subsection of Measures in the Methods section, the hypothesis tests we run without the use of control variables as suggested by Spector and Brannick (2011, p. 297). Correlation analyses found that none of the control variables produced significant correlations with the dependent variables and relationships with the independent variables ranging from small to moderate effect sizes. Regression analyses without control variables in hypothesis testing produced different results in three of the four analyses with control variables present. Identity-oriented marking with no controls lead to Honesty-Humility becoming significant in addition to Emotionality and Openness to Experience which both were significant dimensions when controls were utilized. The variance explained decreased by .03 without the control variables present. In control-oriented marking, the variance explained decreased and Altruism fell from significance ( $p = .052$ ) while Honesty-Humility remained significant for both analyses with and without controls. The analysis for anticipatory defending without control variables present resulted in Altruism becoming significant while Honesty-

Humility remained significant with and without controls. Additionally, the  $R^2$  for both analyses was identical at .15 and significant. The absence of controls in the regression analysis of reactionary defending lead to a .01 decrease in variance explained while Altruism was the only significant predictor in each comparison. These results indicate that use of controls was warranted given that both Age and Gender had significant correlations with the personality variables and that regression results differed when controls were not utilized.

Table 7  
*Hypothesis Summary*

Hypothesis	Supported?
1a Honesty-humility will be negatively related only to control-oriented marking territorial work behaviors.	Supported
1b Honesty-humility will be negatively related to defending-oriented territorial work behaviors.	Partial Support
2a Emotionality will be positively related to control-oriented marking territorial work behaviors.	Not Supported
2b Emotionality will be positively related to defending-oriented territorial work behaviors.	Not Supported
3a Extraversion will be positively related to marking-oriented territorial work behaviors.	Not Supported
3b Extraversion will be positively related to defending-oriented territorial work behaviors.	Not Supported
4a Agreeableness will be negatively related to control-oriented marking territorial work behaviors.	Not Supported
4b Agreeableness will be negatively related to defending-oriented territorial work behaviors.	Not Supported
5a Conscientiousness will be positively related to control-oriented marking territorial work behaviors.	Not Supported
5b Conscientiousness will be positively related to defending-oriented territorial work behaviors.	Not Supported
6a Altruism will be negatively related to control-oriented marking territorial work behaviors.	Partial Support
6b Altruism will be negatively related to defending-oriented territorial work behaviors.	Partial Support

## Research Questions

**Facets.** Research question 1 explored the utility of facet-level traits in contrast to dimensions of personality in predicting territorial work behaviors. Most importantly, results from the facet-level analyses provided explanations as to why certain dimension-level regression

analyses failed to reach significance and, at times, offered conflicting results from the dimension-level analyses of each of the dependent variables. Descriptive statistics of the facet scales can be found in Appendix A, Table 20. There were significant facets that demonstrated significant correlations with some or all of the dependent variables which can be found in below in Table 8.

Table 8  
*Significant Correlations between Facets and Territorial Behaviors.*

Facet	Identity-Oriented Marking	Control-Oriented Marking	Anticipatory Defending	Reactionary Defending
Sincerity (H)	-.21**	-.20*		-.24**
Fairness (H)		-.18*		
Greed Avoidance (H)	-.21*	-.32**	-.31**	-.26**
Modesty (H)	-.27**	-.42**	-.35**	-.43**
Dependence (E)	.17*		.19*	
Social Self-Esteem (X)		-.17*	-.23**	
Social Boldness (X)	.23**			.19*
Flexibility (A)		-.22**		-.32**
Patience (A)				-.18*
Prudence (C)		-.19*		-.19*
Aesthetic Appreciation (O)	.21**			
Creativity (O)	.32**	.17*	.18*	.18*

Note. n = 150. H = Honesty-Humility, E = Emotionality, X = Extraversion, A = Agreeableness, C = Conscientiousness, and O = Openness to Experience.

\*: p < .05

\*\* : p < .01

Of the variables with significant correlations to the territorial behaviors, Greed Avoidance (H), Modesty (H), and Creativity (O) were consistently significant across all four types of territorial work behaviors. Modesty (H) had the strongest relationships with control-oriented marking, anticipatory defending, and reactionary defending while Creativity had the strongest association with identity-oriented marking. For the specific strengths of correlations in all the facets, see Table 21 in Appendix A.

In order to arrive at the final exploratory models, analyses were conducted by running a regression analysis for the facets of a single dimension, repeating this process for all dimensions of the HEXACO model for each dependent variable of territorial work behaviors. Then, using  $p < 0.1$  as a cut-off criteria, the facets and controls from each dimension were entered together to arrive at a final model. Heinze and Dunkler (2017) suggested a form of backward elimination using a p-value cut-off of .157 as a criteria for variable selection when the event-per-variable is under 100. With 25 facet-level traits and a sample size of 150, this would indicate an events-per-variable ratio of six and is considered low by the standards outlined by Heinze and Dunkler (2017). In the separate facet level analyses with controls, the events-per-variable ratio is 25 and closer to the ratio Heinze and Dunkler (2017) proposed for stable regression coefficients. Taking this into account, it was decided that if a control variable breached the  $p < .10$  cut-off in any of the facet-level regression analyses, it would be included in the final model. The approach of using a near-significance cut-off for the controls and variables was to provide a final model with only the predictors that have a chance to emerge as true predictors to offer a higher level of precision without over specification due to a large number of insignificant variables and collinearity issues. Results of each regression analysis by dimension are provided in Appendix A, Tables 22-33. Comparisons between the final facet models, backward elimination, and forward selection were also conducted. The comparisons between backward elimination, forward selection, and the models described in this section can be found in Tables 35-38 in Appendix A.

Table 9

*Final Facet Model of Identity-Oriented Marking*

Predictors	Identity-Oriented Marking		
	<i>b</i>	<i>SE</i>	$\beta$
Sex	0.49	0.07	0.06
Age	<b>-0.01*</b>	<b>0.00</b>	<b>-0.25</b>
Tenure - Job	<b>0.02*</b>	<b>0.01</b>	<b>0.29</b>
Tenure - Organization	0.00	0.01	-0.02
Modesty (H)	-0.22	0.17	-0.14
Fear (E)	0.14	0.16	0.09
Dependence (E)	0.13	0.14	0.08
Social Self-Esteem (X)	-0.25	0.22	-0.15
Social Boldness (X)	0.14	0.17	0.09
Liveliness (X)	0.15	0.19	0.11
Gentleness (A)	<b>0.48*</b>	<b>0.19</b>	<b>0.25</b>
Flexibility (A)	<b>-0.36*</b>	<b>0.18</b>	<b>-0.21</b>
Creativity (O)	<b>0.54**</b>	<b>0.16</b>	<b>0.32</b>
Altruism	-0.13	0.27	-0.06
<b>R<sup>2</sup></b>			<b>.27**</b>

*Note.*  $n = 150$ . Predictors derived from regression analyses using  $p < .1$  as a cut-off criteria. H = Honesty-Humility, E = Emotionality, X = Extraversion, A = Agreeableness, C = Conscientiousness, and O = Openness to Experience.

†:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

In identity-oriented marking, the inclusion of facets lead to an increase in variance explained ( $R^2 = .27$ ,  $\Delta R^2 = .05$ ) when compared to the regression analysis with the HEXACO dimensions and Altruism. Shown in Table 9, the final significant predictors included the control variables age ( $\beta = -.25$ ,  $t(149) = -2.30$ ,  $p = .023$ ) emerging as a negative predictor and job-based tenure ( $\beta = .29$ ,  $t(149) = 2.14$ ,  $p = .034$ ) emerging as a positive predictor. Facet-level predictors involved only the dimensions of Agreeableness and Openness to Experience for identity-oriented marking. In Agreeableness, the facet Gentleness ( $\beta = .25$ ,  $t(149) = 2.51$ ,  $p = .013$ ) was a positive predictor while the facet Flexibility ( $\beta = -.21$ ,  $t(149) = -2.03$ ,  $p = .046$ ) negatively predicted identity-oriented marking. The Creativity facet of Openness emerged as a positive predictor as well ( $\beta = .32$ ,  $t(149) = 3.36$ ,  $p = .001$ ). This could be interpreted that individuals high in



Gentleness may use identity-oriented marking as a means to avoid conflict with others in pursuit of a goal as territoriality has been demonstrated as a means of conflict reduction (Costa, 2012; Edney, 1974). Lee and Ashton (2009) describe Flexibility as the “willingness to compromise and cooperate with others.” Logically, Flexibility negatively predicted identity-oriented marking as individuals high in Flexibility are likely to appraise situations and stimuli in the environment with the potential for consequences differently than those low in Flexibility. Specifically, high scores in Flexibility will likely trigger an avoidant response after an appraisal. The obfuscating effects from facet-level traits of larger personality dimensions (Hastings and O’Neill, 2009) are evidenced by Gentleness ( $\beta = .25, t(149) = 2.51, p = .013$ ) and Flexibility ( $\beta = -.21, t(149) = -2.03, p = .045$ ) which may explain why Agreeableness was not significant in the dimension-level analysis (see Table 5 & 6 in the Results section; Appendix A, Tables 28 & 29). Interestingly, Emotionality’s facets were not significant for identity-oriented marking in the presence of other facet-level variables despite Emotionality being a significant predictor in the dimension-level analysis. For individual’s high in Creativity, Lee and Ashton (2009) described this facet of Openness to Experience as those who tend to express themselves in art and have a preference towards novel solutions to problems. It is most likely that those high in Creativity will use identity-oriented marking to communicate the creative side of the individual’s personality, the outcomes of this behavior are likely explained next in control-oriented marking.

Table 10

*Final Facet Model of Control-Oriented Marking*

Predictors	Control-Oriented Marking		
	<i>b</i>	<i>SE</i>	$\beta$
Sex	0.03	0.07	0.03
Age	0.00	0.00	-0.08
Tenure - Job	0.01	0.01	0.21
Tenure - Organization	-0.01	0.01	-0.16
Modesty (H)	<b>-0.47**</b>	<b>0.17</b>	<b>-0.29</b>
Fear (E)	-0.11	0.17	-0.07
Anxiety (E)	0.27	0.16	0.20
Dependence (E)	0.06	0.15	0.04
Sentimentality (E)	-0.20	0.25	-0.09
Social Self-Esteem (X)	<b>-0.54*</b>	<b>0.22</b>	<b>-0.32</b>
Social Boldness (X)	0.25 <sup>†</sup>	0.17	0.17
Liveliness (X)	0.26	0.19	0.18
Gentleness (A)	<b>0.72**</b>	<b>0.21</b>	<b>0.37</b>
Flexibility (A)	-0.35 <sup>†</sup>	0.19	-0.20
Patience (A)	-0.27	0.17	-0.16
Prudence (C)	0.24	0.21	0.11
Creativity (O)	0.35 <sup>†</sup>	0.18	0.21
Unconventionality (O)	-0.34	0.21	-0.16
Altruism	0.01	0.31	0.00
<b>R<sup>2</sup></b>			<b>.37**</b>

*Note.*  $n = 150$ . Predictors derived from regression analyses using  $p < .1$  as a cut-off criteria. H = Honesty-Humility, E = Emotionality, X = Extraversion, A = Agreeableness, C = Conscientiousness, and O = Openness to Experience.

<sup>†</sup>:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

In control-oriented marking, the final model of controls and facets resulted in  $R^2 = .38$ ,  $\Delta R^2 = .20$  leading to more explained variance over the HEXACO dimensions with Altruism. Shown in Table 10, significant negative predictors that emerged were the facet of Modesty from the Honesty-Humility dimension ( $\beta = -.29$ ,  $t(149) = -2.79$ ,  $p = .006$ ) and the facet of Social Self-Esteem from the Extraversion dimension ( $\beta = -.32$ ,  $t(149) = -2.45$ ,  $p = .015$ ). Significant positive predictors was the facet of Gentleness from the Agreeableness dimension ( $\beta = .37$ ,  $t(149) = 3.42$ ,  $p = .001$ ). Three predictors approached were between a  $p$ -value of .05 and .10. These predictors

were Anxiety ( $\beta = .20$ ,  $t(149) = 1.74$ ,  $p = .085$ ), Flexibility ( $\beta = -.35$ ,  $t(149) = -1.87$ ,  $p = .064$ ), and Creativity ( $\beta = .35$ ,  $t(149) = 1.92$ ,  $p = .057$ ). Honesty-Humility's facet, Modesty, was the only significant negative predictor of Honesty-Humility (see Table 22 in Appendix A) and explains the dimension's significance in the dimension-level analysis of control-oriented marking. Modesty, which Lee and Ashton (2009) describe as an individual's sense of entitlement, explains quite obviously its predictive capacity in control-oriented marking; individuals that feel entitled and superior are more likely to believe they *should* control an object. An additional negative predictor, Social Self-Esteem became significant from the Extraversion dimension. Social Self-Esteem, described by Lee and Ashton (2009) as someone who has positive self-regard and believes they are liked by others, was negatively related to control-oriented marking. In situations where an individual would claim a territory to reduce competition and to announce control of an object, individuals high in Social Self-Esteem may either perceive the social consequences unfavorably or such behavior to averse to the individual.

Altruism was a significant predictor in the dimension level analysis of control-oriented marking behavior, however, when included in the facet-level analysis, Altruism was insignificant ( $\beta = .00$ ,  $t(149) = 0.02$ ,  $p = .987$ ). Given that Altruism is an interstitial scale comprised of Honesty-Humility, Emotionality, and Agreeableness in the HEXACO-PI-R (Lee & Ashton, 2006, p. 185), and the presence of these facets were used in the final model (see Table 10), it is likely that collinearity caused Altruism to be rendered insignificant as these facets better explain control-oriented marking.

Table 11

*Final Facet Model of Anticipatory Defending*

Predictors	Anticipatory Defending		
	<i>b</i>	<i>SE</i>	$\beta$
Sex	0.04	0.07	0.05
Age	0.00	0.00	-0.08
Tenure - Job	0.01	0.01	0.10
Tenure - Organization	0.00	0.01	-0.01
Sincerity (H)	<b>0.49*</b>	<b>0.19</b>	<b>0.28</b>
Greed Avoidance (H)	-0.18	0.15	-0.12
Modesty (H)	<b>-0.45*</b>	<b>0.18</b>	<b>-0.29</b>
Fear (E)	-0.10	0.16	-0.06
Anxiety (E)	0.27 <sup>†</sup>	0.15	0.20
Dependence (E)	0.24 <sup>†</sup>	0.15	0.15
Sentimentality (E)	-0.27	0.22	-0.13
Social Self-Esteem (X)	<b>-0.46**</b>	<b>0.17</b>	<b>-0.28</b>
Social Boldness (X)	<b>0.39*</b>	<b>0.17</b>	<b>0.27</b>
Gentleness (A)	<b>0.70**</b>	<b>0.19</b>	<b>0.37</b>
Flexibility (A)	-0.16	0.19	-0.09
Patience (A)	-0.29 <sup>†</sup>	0.17	-0.18
Creativity (O)	0.11	0.16	0.07
Altruism	-0.07	0.30	-0.03
	<b>R<sup>2</sup></b>		<b>.36**</b>

*Note.*  $n = 150$ . Predictors derived from regression analyses using  $p < .1$  as a cut-off criteria. H = Honesty-Humility, E = Emotionality, X = Extraversion, A = Agreeableness, C = Conscientiousness, and O = Openness to Experience.

<sup>†</sup>:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

Facet-level regression analysis of anticipatory defending revealed similar findings to control-oriented marking with some exceptions. The use of facets to predict anticipatory defending showed increased explained variance as well, resulting in  $R^2 = .36$ ,  $\Delta R^2 = .21$  when compared to the regression model with the HEXACO dimensions including Altruism. Shown in Table 11, significant negative predictors of anticipatory defending were Modesty from the Honesty-Humility dimension ( $\beta = -.29$ ,  $t(149) = -2.50$ ,  $p = .014$ ) and Social-Self Esteem from the

Extraversion dimension ( $\beta = -.28, t(149) = -2.77, p = .007$ ). Significant positive predictors included Sincerity from Honesty-Humility ( $\beta = .28, t(149) = 2.63, p = .001$ ), Social Boldness from Extraversion ( $\beta = .27, t(149) = 2.34, p = .021$ ) and Gentleness from the Agreeableness dimension ( $\beta = .37, t(149) = 3.67, p < .001$ ). Due to similarities between control-oriented marking and anticipatory defending (detailed in the discussion section), Modesty, Social-Self Esteem, and Gentleness likely function the same for both dependent variables. Anxiety ( $\beta = .20, t(149) = 1.79, p = .076$ ) and Dependence ( $\beta = .15, t(149) = 1.67, p = .098$ ) from the Emotionality dimension and Patience ( $\beta = -.18, t(149) = -1.74, p = .084$ ) from the Agreeableness dimension were between the  $p$ -value of .05 and .10.

Social Boldness is a predictor that is unique to anticipatory defending. Social Boldness describes the level of self-efficacy an individual has in social situations (Lee & Ashton, 2009). In cognitive appraisal theory, resources for coping are assessed in the secondary appraisal in addition to an individual's control over the outcome and the consequences for responding (Folkman et al., 1986; Lazarus, 1991b; Lazarus & Smith, 1988). It is likely that a high degree of self-efficacy in social contexts gives an individual a greater degree of feelings of control and adequate resources for responding when it is necessary to explain why an anticipatory defense was employed. In Sincerity, Lee and Ashton (2009) described individuals with high scores on this facet as unwilling to engage in the manipulation of others while those with low scores will use disingenuous means to obtain favor with others in order to reach goals. Unfortunately, the relationship between Sincerity and anticipatory defending is not as clear. Brown et al. (2005) proposed that anticipatory defenses would be utilized in conditions where cost of infringement was low, a means to establish boundaries when marking symbols lacked context between others, or when the threat of an infringement is perceived to be high. However, none of these seem to

explain why Sincerity would predict anticipatory defending, especially through the lens of cognitive appraisal theory. Brown (2009) discussed that anticipatory defending may reduce the frequency of conflict as defenses are harder to ignore than symbols and boundaries in control-oriented marking (p. 46). The bulk of items in the Sincerity facet specifically use the word “flattery” in the question stems. It may be that individuals who are less likely to use flattery are also less likely to use other covert means and prefer obvious, straightforward behaviors and communications like the preventative measures of anticipatory defenses. However, this is an abstraction and it is unclear how Sincerity and appraisal theory explains this result.

Table 12

*Final Facet Model of Reactionary Defending*

Predictors	Reactionary Defending		
	<i>b</i>	<i>SE</i>	$\beta$
Sex	0.01	0.07	0.01
Age	0.00	0.00	-0.05
Tenure - Job	0.00	0.01	0.06
Tenure - Organization	0.00	0.01	-0.03
Modesty (H)	<b>-0.41*</b>	<b>0.17</b>	<b>-0.26</b>
Fear (E)	0.08	0.16	0.05
Dependence (E)	0.12	0.15	0.07
Social Self-Esteem (X)	-0.15	0.17	-0.09
Social Boldness (X)	0.16	0.16	0.11
Gentleness (A)	0.36 <sup>†</sup>	0.19	0.19
Flexibility (A)	<b>-0.52**</b>	<b>0.18</b>	<b>-0.30</b>
Prudence (C)	0.11	0.21	0.05
Creativity (O)	0.30 <sup>†</sup>	0.16	0.18
Altruism	-0.31	0.26	-0.13
	<b>R<sup>2</sup></b>		<b>.29**</b>

*Note.* *n* = 150. Predictors derived from regression analyses using *p* < .1 as a cut-off criteria. H = Honesty-Humility, E = Emotionality, X = Extraversion, A = Agreeableness, C = Conscientiousness, and O = Openness to Experience.

<sup>†</sup>: *p* < .1

\*: *p* < .05

\*\*: *p* < .01

Finally, for reactionary defending, Modesty and Flexibility were the only significant predictors and were in the same directions as the previous analyses. Reactionary defending resulted in more variance explained by the inclusion of facets  $R^2 = .29$ ,  $\Delta R^2 = .09$  when compared to the model of HEXACO and Altruism. Shown in Table 12, Modesty ( $\beta = -.26$ ,  $t(149) = -2.42$ ,  $p = .017$ ) from the Honesty-Humility dimension and Flexibility ( $\beta = -.30$ ,  $t(149) = -2.95$ ,  $p = .004$ ) were the only significant predictors and both had a negative relationship with reactionary defending while was the only significant positive predictor. Creativity, from Openness to Experience, approached significance ( $\beta = .18$ ,  $t(149) = 1.94$ ,  $p = .054$ ) as did Gentleness ( $\beta = .19$ ,  $t(149) = 1.94$ ,  $p = .055$ ) from the Agreeableness dimension. The lack of entitlement in high scores of Modesty explain why this facet would engage less in reactionary defenses, especially when taking into consideration that Brown and Robinson (2011) found that 94% of their sample ( $n = 133$ ) experienced anger when reacting to an infringement. An individual who feels less entitled to an object would certainly not react angrily to an infringement. Similarly, the willingness to compromise and cooperate with others, indicated by a high score in Flexibility, would also reduce the likelihood of an individual to react to an infringement. Many of the items Brown (2009) produced in developing the measure of territorial work behaviors involved disagreement, avoidance, dislike, and revenge against the infringing party (p. 48). These behaviors are at odds with the operational definition of Flexibility and it is likely that primary and secondary appraisals of an infringement would produce a different response for those high in Flexibility.

As demonstrated in Tables 6 and 7, Altruism was significant for control-oriented marking and reactionary defending and approached significance for anticipatory defending ( $p = .053$ ). However, Altruism was not significant for any of the facet-level analysis due to the presence of

facets in the Honesty-Humility, Emotionality, and Agreeableness dimensions. Lee and Ashton (2006) explained that Altruism is an interstitial scale made of up items similar to these dimension but a distinct facet in its own right. Post-hoc analyses comparing regression results between the HEXACO dimensions only and HEXACO with Altruism indicated that Altruism's inclusion resulted in .02, .03, .02, and .03 increases in explained variance ( $\Delta R^2$ ) in identity-oriented marking, control-oriented marking, anticipatory defending, and reactionary defending respectively. However, it suppressed the significance and coefficients of Honesty-Humility across all dependent variables along with suppressing Emotionality and Openness to Experience in identity-oriented marking regression analyses. Despite its insignificance in the facet-level analyses and suppression of variables in the dimension-level analyses, its inclusion was warranted due to the value it added in explained variance. However, when examining traits at the facet-level, Altruism's value was not warranted and may have suppressed the significance and coefficients of some variables due to multicollinearity (see Table 21 in Appendix A).

Table 13

*Regression Model Result Comparisons between Dimension and Facets in Territorial Work Behaviors*

	Identity-Oriented Marking				Control-Oriented Marking			
	F (df)	p	R <sup>2</sup>	$\Delta R^2$	F (df)	p	R <sup>2</sup>	$\Delta R^2$
Controls	0.98 (4,145)	.419	.03		0.73 (4,145)	.570	.02	
Dimensions + Altruism	3.47 (11,138)	<.001	.22	.19	2.67 (11,138)	.004	.18	.16
Final Facet Model	3.64 (14,135)	<.001	.27	.05	3.98 (20,129)	<.001	.38	.19
	Anticipatory Defending				Reactionary Defending			
	F (df)	p	R <sup>2</sup>	$\Delta R^2$	F (df)	p	R <sup>2</sup>	$\Delta R^2$
Controls	0.45 (4,145)	.771	.01		0.32 (4,145)	.862	.01	
Dimensions + Altruism	2.23 (11,138)	.016	.15	.14	3.07 (11,138)	.001	.20	.19
Final Facet Model	4.17 (18,131)	<.001	.36	.21	3.99 (14,135)	<.001	.29	.09

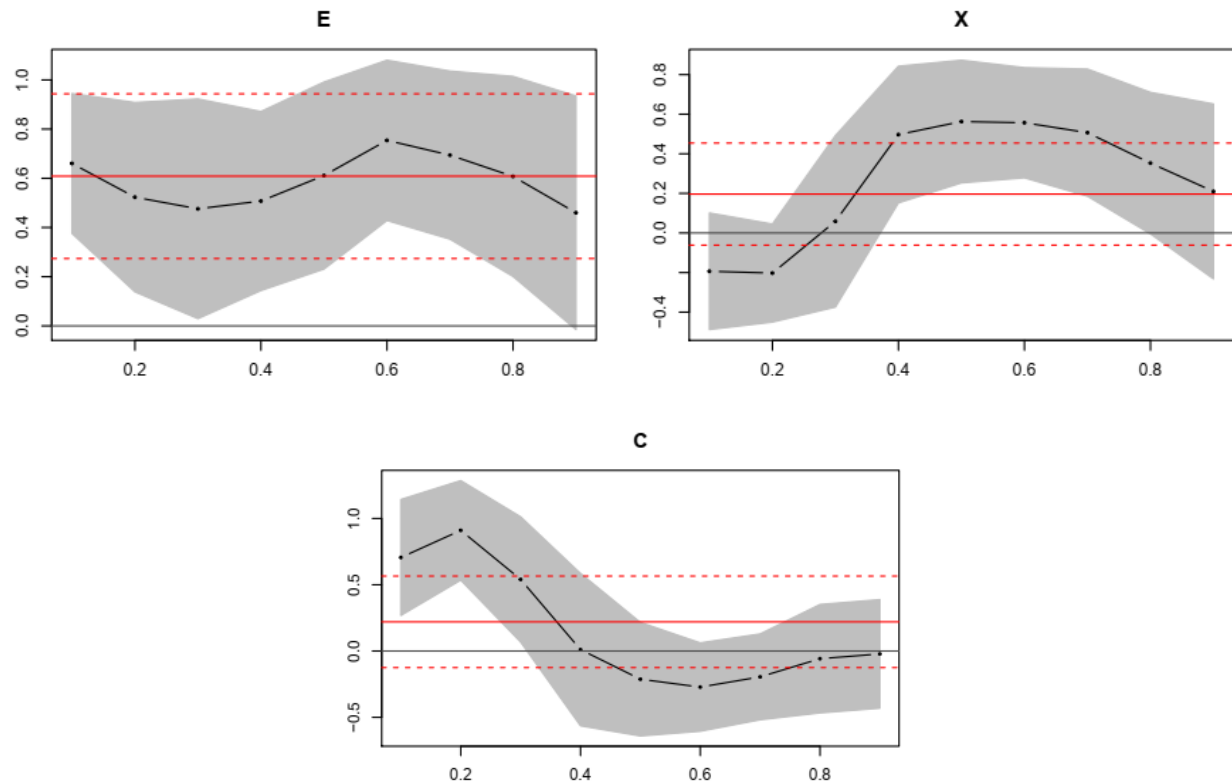
Note. n = 150. Final facet models only contained control variables if they breached the  $p < .01$  cut-off.

Based on the larger variance explained in the final facet models demonstrated in Table 13, the results of the regression analyses provide evidence in utilizing facets over dimensions in



predicting territorial work behaviors, also taking into account that facet-level traits offer a clearer picture as to how dimensions interacted with the dependent variables and require less of an inferential leap in their interpretation.

**Quantile Regression.** In research question 2, the use of quantile regression in comparison to OLS was explored to investigate if quantile regression would produce any differences between the two regression analyses. The analyses were conducted on the trimmed data set ( $n = 150$ ) but the data was untransformed as the transformation caused quantile regression results to be biased. The differences between the OLS regression results on the transformed data and untransformed data were similar with two exceptions. The OLS estimate of the untransformed data set caused Honesty-Humility to become significant in predicting identity-oriented marking and caused Altruism to be significant in predicting anticipatory defending. Both of these variables were near significance in their respective analyses in the transformed data and the transformation was warranted as it resulted in a more normal distribution of the data. Figures contrasting OLS and quantile regression for each dependent variable can be found in Appendix A, Figures 5 through 8.



*Figure 4.* Results from quantile regression analysis in identity-oriented marking on Emotionality, Extraversion, and Conscientiousness. E = Emotionality, X = Extraversion, and C = Conscientiousness. Conditional quantile are marked on the x-axis and the increase/decrease of the units of the dependent variable are on the y-axis. OLS regression coefficient corresponds to the solid red line, with the dashed red lines representing the 95% confidence intervals. The dotted black line corresponds to the regression coefficient at each conditional quantile with the grey area representing the 95% confidence interval for each conditional quantile. The solid black line represents the zero (0) line for units of the dependent variable.

In Figure 4, a representation of the quantile regression plots are displayed for interpretation. Emotionality, the plot depicted under an E in Figure 4, indicates that quantile regression and OLS regression predict similarly across the distribution. This is demonstrated as the solid red line (OLS coefficient estimate) and the dotted black line (conditional quantile coefficient estimates) falling parallel to each other. Extraversion and Conscientiousness, the plots depicted under a X and C respectively, demonstrate curvilinear relationships with identity-oriented marking. For Extraversion, the middle quantiles of Extraversion are significant (note the distance between the confidence intervals [gray area] and the solid black line [zero]) and

positively predict for identity-oriented marking. As Extraversion increases from the middle quantiles, it descends back towards the zero line and the confidence interval contains the zero at roughly the .8 quantile. For Extraversion, it could be interpreted that Extraversion scores between the 40<sup>th</sup> and 80<sup>th</sup> percentiles would positively predict for identity-oriented marking. In the Extraversion (X) plot in Figure 4, it is also plausible that with a larger sample size, the confidence interval for those below the 30<sup>th</sup> percentile/quantile (very low Extraversion scores) would produce a negative prediction for identity-oriented marking.

This highlights a similar finding by van Zyl and de Bruin (2018) in that OLS regression estimates can over-predict counterproductive work behaviors in scores contained in the low-end (left-tail) of a distribution. In Conscientiousness, Figure 4 demonstrates that lower quantiles of Conscientiousness positively predict identity-oriented marking but become insignificant (confidence interval contains the zero) past the .3 quantile. This can be interpreted as those low in Conscientiousness can be predicted to engage in identity-oriented territorial marking behaviors while below average scores and higher scores will not. Contrasted to the OLS estimate, due to assumption of linearity in the relationship, the OLS confidence interval (dotted red lines in Figure 4, C-plot) contains the zero line. This obfuscates the relationship between the independent and dependent variables as the strength and direction of predictions change. Plots are provided each dependent variable and the HEXACO dimensions with Altruism in Appendix A, Figures 6-9. Similarly to Eide and Showalter (1998), OLS and quantile regression co-efficient estimates can be displayed to highlight the differences between the analyses. As a numerical representation shown in Tables 14-17, contrasts between OLS coefficient estimates and quantile regression coefficient estimates can be compared for each dependent variable. It is important to

note that this analysis was conducted on an untransformed data set as the significant variables are different from previous analyses.

In Table 14, quantile regression estimates for each dimension in identity-oriented marking differ in the estimated strength and significance of the OLS estimates. The previously described relationship of Extraversion and Conscientiousness discussed in Figure 4 can be seen numerically. A similar interpretation of Conscientiousness's relationship to identity-oriented marking can also be extended to Agreeableness. While a similar interpretation for Extraversion from Figure 4 can also be extended to Altruism. OLS found only Honesty-Humility, Emotionality, and Openness to Experience to be significant, however, it is noted that Altruism approached significance. In quantile regression, the significant coefficients are nearly across all quantiles of Emotionality and Openness to Experience while Honesty-Humility is only significant for the lower third of the distribution. Altruism had significant coefficients for the middle third of the distribution. The quantile regression plots are provided in Appendix A, Figure 6.

Table 14  
*Comparison of OLS and Quantile Regression Results in Identity-Oriented Marking*

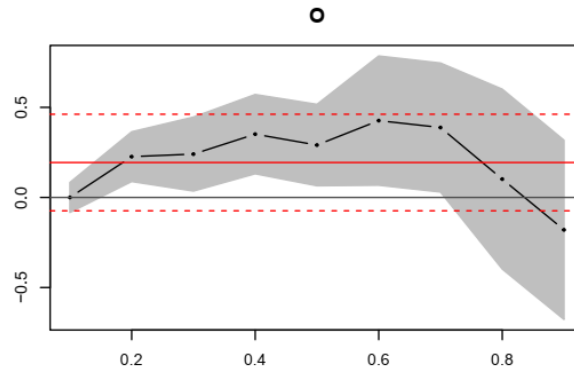
Variable	OLS	Quantile								
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Honesty-Humility	<b>-0.39*</b>	<b>-0.66**</b>	<b>-0.82**</b>	<b>-0.71*</b>	-0.32	-0.16	-0.08	-0.05	-0.32	-0.37
	0.19	0.24	0.21	0.30	0.26	0.20	0.17	0.21	0.23	0.26
Emotionality	<b>0.61**</b>	<b>0.66**</b>	<b>0.52*</b>	0.48 <sup>†</sup>	<b>0.51*</b>	<b>0.61**</b>	<b>0.75**</b>	<b>0.69**</b>	<b>0.61*</b>	0.46
	0.20	0.17	0.23	0.27	0.22	0.23	0.20	0.21	0.25	0.29
Extraversion	0.20	-0.19	-0.20	0.06	<b>0.50*</b>	<b>0.56**</b>	<b>0.56**</b>	<b>0.51**</b>	0.35	0.21
	0.16	0.18	0.15	0.26	0.21	0.19	0.17	0.20	0.22	0.27
Agreeableness	0.08	<b>0.55**</b>	<b>0.45*</b>	0.32	0.03	-0.11	-0.16	-0.23	-0.09	-0.14
	0.18	0.21	0.20	0.25	0.21	0.24	0.17	0.18	0.22	0.21
Conscientiousness	0.22	<b>0.71**</b>	<b>0.91**</b>	0.54 <sup>†</sup>	0.01	-0.21	-0.27	-0.19	-0.06	-0.02
	0.21	0.27	0.23	0.29	0.35	0.26	0.20	0.20	0.25	0.25
Openness to Experience	<b>0.47**</b>	<b>0.45**</b>	0.25	<b>0.46**</b>	<b>0.68**</b>	<b>0.84**</b>	<b>0.80**</b>	<b>0.68**</b>	<b>0.58**</b>	0.44 <sup>†</sup>
	0.17	0.16	0.17	0.14	0.21	0.21	0.18	0.20	0.17	0.24
Altruism	-0.46 <sup>†</sup>	-0.42	-0.28	-0.43	<b>-0.82*</b>	<b>-0.73*</b>	<b>-0.69**</b>	<b>-0.83**</b>	-0.42	0.01
	0.25	0.27	0.33	0.35	0.35	0.32	0.20	0.18	0.36	0.34

Note.  $n = 150$ . Standard errors are given below each parameter estimate.

<sup>†</sup>:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$



*Figure 5.* Results from quantile regression analysis in control-oriented marking and Openness to Experience. Conditional quantile are marked on the x-axis and the increase/decrease of the units of the dependent variable are on the y-axis. The conical shaped gray area indicates the confidence intervals of the quantile regression estimates.

In the analysis of control-oriented marking, displayed in Table 14, Honesty-Humility and Emotionality were significant in the upper tail of the distribution while Openness to Experience was only significant in the central area of the distribution. Altruism triggered significance in the .6 and .7 quantiles only but OLS estimates found this to be a significant predictor in addition to Honesty-Humility. Despite the number of significant quantile coefficients for Openness to Experience in control-oriented marking, the OLS confidence interval did not emerge as significant (see Table 14). This was due to a violation of normally distributed errors (heteroscedasticity) which is depicted in Figure 5. This highlights the ability of quantile regression to calculate more nuanced coefficients when the residuals in regression are not normally distributed. When heteroscedasticity is present, OLS estimates are considered inefficient due to the variance of the residuals changing across the distribution. This biases the regression coefficient to underestimate the true estimate and can lead to errors when inferring regression estimates (Kaufman, 2013). The full plots of quantile regression analyses for control-oriented marking can be found in Appendix A, Figure 7.

Table 15

*Comparison of OLS and Quantile Regression Results in Control-Oriented Marking*

Variable	OLS	Quantile								
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Honesty-Humility	<b>-0.48**</b>	0.00	<b>-0.36**</b>	-0.35 <sup>†</sup>	-0.19	-0.36	-0.36	<b>-0.55*</b>	<b>-0.91**</b>	<b>-0.73*</b>
	0.18	0.11	0.13	0.18	0.20	0.22	0.27	0.23	0.28	0.35
Emotionality	0.35 <sup>†</sup>	0.00	-0.07	-0.09	0.07	0.29	0.43	<b>0.58*</b>	0.26	<b>0.75*</b>
	0.20	0.08	0.09	0.19	0.21	0.20	0.27	0.24	0.32	0.37
Extraversion	0.0	0.00	<b>-0.17**</b>	-0.11	0.02	0.12	0.13	0.02	0.04	-0.26
	0.16	0.09	0.04	0.11	0.11	0.12	0.22	0.21	0.29	0.31
Agreeableness	0.19	0.00	0.02	0.08	0.17	0.18	0.12	0.15	-0.12	-0.09
	0.17	0.08	0.09	0.11	0.16	0.17	0.25	0.22	0.27	0.34
Conscientiousness	0.19	0.00	0.18	0.17	-0.03	0.18	-0.03	0.18	0.10	0.45
	0.20	0.11	0.14	0.16	0.20	0.23	0.27	0.23	0.32	0.34
Openness to Experience	0.19	0.00	<b>0.23**</b>	0.24 <sup>†</sup>	<b>0.35**</b>	<b>0.29*</b>	0.43 <sup>†</sup>	0.39 <sup>†</sup>	0.10	-0.18
	0.16	0.05	0.08	0.12	0.13	0.14	0.22	0.22	0.30	0.30
Altruism	<b>-0.51*</b>	0.00	0.08	-0.04	-0.46	-0.67 <sup>†</sup>	<b>-0.75*</b>	<b>-0.80*</b>	-0.33	-0.49
	0.24	0.08	0.15	0.30	0.32	0.37	0.34	0.33	0.33	0.51

*Note.*  $n = 150$ . Standard errors are given below each parameter estimate.

<sup>†</sup>:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

In anticipatory defending Honesty-Humility was significant at the .1, .2, .4, .5, and .9 quantiles and was between a  $p$ -value of .05 and .10 in the majority of the others as shown in Table 16. Agreeableness emerged as significant in the lower quantiles while Altruism emerged as significant in the upper quantiles. Similar to the results of quantile regression for Openness to Experience and control-oriented marking, the confidence intervals of Emotionality, Extraversion, and Agreeableness indicated a non-normal distribution of errors. These plots are contained in Appendix A, Figure 8. OLS coefficients for Emotionality were between a  $p$ -value of .05 and .10 in both anticipatory defending and control-oriented marking. If one follows the quantile regression estimates across Table 15 for Emotionality, it becomes evident that OLS over-predicts territorial behaviors in low scores of Emotionality as the quantile regression estimates hover above or below the zero line until the median (.5 quantile) and then rise markedly. This suggests that the effects of Emotionality on control-oriented marking become significant only when Emotionality scores are high and predicts an increase in control-oriented marking at these levels.



Table 16

*Comparison of OLS and Quantile Regression Results in Anticipatory Defending*

Variable	OLS	Quantile								
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Honesty-Humility	<b>-0.41*</b>	<b>-0.32**</b>	<b>-0.35**</b>	-0.32 <sup>†</sup>	<b>-0.47*</b>	<b>-0.48*</b>	-0.53 <sup>†</sup>	-0.47 <sup>†</sup>	-0.28	<b>-0.97**</b>
	0.18	0.12	0.11	0.18	0.21	0.24	0.28	0.25	0.29	0.28
Emotionality	0.36 <sup>†</sup>	0.04	0.09	0.20	0.18	0.41 <sup>†</sup>	0.45	0.34	0.46	<b>0.72*</b>
	.019	0.10	0.11	0.17	0.20	0.25	0.28	0.27	0.29	0.27
Extraversion	-0.12	-0.20 <sup>†</sup>	-0.17 <sup>†</sup>	<b>-0.31**</b>	-0.18 <sup>†</sup>	-0.10	-0.18	-0.15	-0.18	-0.44 <sup>†</sup>
	0.15	0.11	0.09	0.10	0.11	0.14	0.24	0.24	0.26	0.26
Agreeableness	0.26	0.22 <sup>†</sup>	<b>0.25**</b>	<b>0.43**</b>	<b>0.33*</b>	0.23	0.34	0.25	0.00	-0.06
	0.17	0.11	0.08	0.14	0.14	0.20	0.27	0.26	0.27	0.45
Conscientiousness	0.25	0.25 <sup>†</sup>	<b>0.39**</b>	0.26	0.19	0.22	0.17	0.19	0.22	0.76
	0.20	0.14	0.12	0.18	0.21	0.25	0.30	0.28	0.27	0.61
Openness to Experience	0.28 <sup>†</sup>	0.19 <sup>†</sup>	0.19 <sup>†</sup>	<b>0.31*</b>	0.24	0.34 <sup>†</sup>	0.40	0.29	<b>0.60*</b>	-0.12
	0.16	0.11	0.10	0.14	0.15	0.18	0.25	0.23	0.25	0.30
Altruism	<b>-0.51*</b>	0.06	0.07	-0.16	-0.40	-0.45	-0.69 <sup>†</sup>	<b>-0.83*</b>	<b>-0.93**</b>	-0.24
	0.24	0.09	0.15	0.29	0.32	0.40	0.41	0.35	0.23	0.33

Note.  $n = 150$ . Standard errors are given below each parameter estimate.

<sup>†</sup>:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

Finally, in reactionary defending (see Table 17), Openness to Experience was significant from the lower to middle quantiles while Altruism was significant only in the middle quantiles. Extraversion, similar to Altruism, was only significant in the middle quantiles as well. Extraversion was the only variable that indicated a curvilinear relationship with reactionary defending and evidence of the violation of heteroscedasticity was mildly present in Extraversion and Openness to Experience. The lack of significance in both OLS and quantile regression coefficients in reactionary defending is likely attributed to the sample size and errors that resulted in wide confidence intervals for the estimates. Quantile regression plots for reactionary defending are provided in Appendix A, Figure 9.

Table 17

*Comparison of OLS and Quantile Regression Results in Reactionary Defending*

Variable	OLS	Quantile								
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Honesty-Humility	-0.28 <sup>†</sup>	0.00	-0.04	-0.18	-0.16	-0.25	-0.35 <sup>†</sup>	-0.43 <sup>†</sup>	-0.34	-0.37
	0.17	0.04	0.21	0.23	0.22	0.20	0.21	0.22	0.27	0.28
Emotionality	0.29	0.00	0.17	0.20	0.37 <sup>†</sup>	<b>0.43*</b>	0.27	0.26	<b>0.61*</b>	0.32
	0.19	0.05	0.19	0.26	0.22	0.20	0.21	0.23	0.27	0.32
Extraversion	0.23	0.00	0.03	0.11	<b>0.35*</b>	<b>0.51**</b>	<b>0.44*</b>	0.30	0.21	0.18
	0.14	0.03	0.10	0.18	0.15	0.11	0.20	0.22	0.23	0.19
Agreeableness	-0.21	0.00	-0.09	-0.11	-0.13	-0.34	<b>-0.51**</b>	<b>-0.60**</b>	-0.26	-0.52 <sup>†</sup>
	0.16	0.04	0.17	0.22	0.22	0.21	0.19	0.20	0.20	0.30
Conscientiousness	0.10	0.00	0.19	0.01	-0.05	-0.14	-0.12	-0.03	0.09	0.04
	0.19	0.06	0.21	0.18	0.24	0.24	0.24	0.25	0.30	0.25
Openness to Experience	0.27 <sup>†</sup>	0.00	<b>0.27*</b>	<b>0.37**</b>	<b>0.37*</b>	<b>0.36*</b>	0.25	0.08	0.42 <sup>†</sup>	0.09
	0.16	0.05	0.13	0.13	0.17	0.18	0.21	0.22	0.25	0.24
Altruism	<b>-0.52*</b>	0.00	-0.41	-0.55	<b>-0.90**</b>	<b>-0.79**</b>	<b>-0.55*</b>	-0.35	-0.73 <sup>†</sup>	-0.27
	0.23	0.07	0.27	0.40	0.31	0.27	0.26	0.27	0.37	0.40

*Note.*  $n = 150$ . Standard errors are given below each parameter estimate.

<sup>†</sup>:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

Through examining the quantile regression results and plots, it was concluded that there was evidence of differential results of significance for the estimates between OLS and quantile regression. While there were not any difference found in the direction of the estimates, quantile regression did show that certain variables only were significant for specific areas of the distribution. For example, in Openness to Experience and reactionary defending, quantile regression found that scores in the lower half of the distribution were significant and indicated an increase in reactionary defending while scores in the upper half had no significant effect (see Table 17). In contrast, OLS regression found the coefficient not significant and under-estimated the effect of Openness. This is due to OLS regression attempting to determine a relationship for the entire distribution. However, it is likely that there was a lack of information in the tails as evidenced by inconsistent significant estimates (many of the .1 quantiles were not significant despite neighboring quantiles rendering significance) and thus, this research question was only partially answered. Explanations of the results, their implications, and likely causes are discussed next.

## DISCUSSION

The primary goal of this research was to assess whether personality is related to territorial work behaviors to fulfill a future research direction called for by Brown and Robinson (2011, p. 221). Additionally, facet-level analyses were utilized to support the hypothesis of bandwidth-matching and previously demonstrated obfuscating effects for similar constructs (Hastings & O'Neil, 2009). Bandwidth-matching is based on the concept that the breadth of a measure for the dependent variable should be matched by similar breadth of measure in the independent variable (Berry, et al., 2007; Judge, Thoresen, Bono, & Patton, 2001; Ones & Viswesvaran, 1996). However, it has been demonstrated that bandwidth-matching should not be the sole criteria for selecting measures of the independent variable and thus, facet-level analyses were only exploratory in nature (O'Neil & Paunonen, 2013, pp. 311-312). Personality is considered to be the qualities that produce differences in patterns of behavior (Manstead & Hewstone, 1999) and territoriality is considered as a socio-behavioral construct, in that it is a display to communicate to others that an object belongs to an individual or group. Cognitive appraisal theory was utilized to illustrate how distinct personality dimensions and traits explain how stimuli in the environment are cognitively and emotionally processed to produce a behavior. For a territorial behavior to be triggered in an individual in cognitive appraisal theory, the object of territoriality must be relevant, congruent, and valuable to an individual's goal. For example, most of territorial behavior results indicated that Honesty-Humility was a significant predictor of territorial work behavior. The dimensions of the HEXACO-PI-R are bipolar, meaning that low scores indicate opposite behaviors when compared to high scores (Lee & Ashton, 2009). A low score in the facet of Modesty, a significant predictor in multiple analyses of this study, would indicate a sense of superiority and entitlement where a high score would indicate a sense of humbleness

and equality with others (Lee & Ashton, 2009). Thus, opportunities to control resources would be compatible, pertinent, and attractive to someone low in Modesty but adverse for someone high in Modesty.

Results indicated that the dimensions of Emotionality and Openness to Experience were significant, positive predictors of identity-oriented marking. Individuals high in Emotionality are characterized as those who experience fear of physical danger, experience anxiety in response to a stressor, feel a need for emotional support, and experience more empathy and sentimental attachment to others (Lee & Ashton, 2009). Individuals high in Openness to Experience are characterized by an admiration for art and nature, inquisitive and curious about a wide variety of topics, are imaginative, and interested in unusual or novel ideas and people (Lee & Ashton, 2009). Brown et al. (2005) described identity-oriented marking as a behavior taken by individuals to deliberately personalize or modify a territorial object to reflect an identity (p. 581). As Emotionality increases, individuals will experience higher needs for dependence and attachment and it was demonstrated they will utilize identity-oriented marking more to show group affiliation and belonging. Similarly as Openness to Experience increases, individuals higher in creativity are more likely to express their identity and creativity by personalizing objects and their environment. As stimuli present themselves in the workplace, individuals high Emotionality or Openness may appraise situations as an opportunity to interject their belongingness, group affiliation, or creativity; especially when these areas are central to the individual's sense of self. In the case of Emotionality, identity-oriented marking may present a way for an individual to communicate their attachment to others. In the case of Openness, identity-oriented marking may present a way for an individual to express their individuality or connection to other creatives in the workplace.

Control-oriented marking, as described by Brown et al., (2005), is meant to communicate boundaries, ownership, and usage over an object. Regression analyses indicated that Honesty-Humility and Altruism were both negative predictors of control-oriented marking. Individuals high in Honesty-Humility are characterized by those who avoid manipulation, are uninterested in accumulating wealth, and feel little entitlement with regards to others (Lee & Ashton, 2009). Individuals high in Altruism, an interstitial scale made of up of elements from Honesty-Humility, Emotionality, and Agreeableness (Lee & Ashton, 2006), are considered sympathetic and soft-hearted towards others (Lee & Ashton, 2009). High scores in Altruism indicate a proclivity to avoid harm to others. These definitions make it easy to infer that as individuals who are less concerned with accumulating resources, communicating status, or when controlling an object may interfere with other's workplace needs, would be less likely to use control-oriented marking. Conversely, those low in Honesty-Humility and Altruism would be characterized as entitled, concerned with status and wealth, and are less concerned about harming others. Therefore, individuals with low scores in these dimensions are more likely to engage in control-oriented marking. As events in the workplace present opportunities to accumulate resources or communicate status and power, individuals low in Honesty-Humility are likely to appraise these events with a high personal stake. When an individual is low in Altruism, they are likely to appraise these events without thinking of the environmental consequences, which include social consequences, or possibly not placing great weight on the consequences. The environmental consequences and personal stake were discussed as the contradictory forces that an individual must reconcile when appraising a stimuli in the environment (Lazarus & Smith, 1988). When an individual is low in both Honesty-Humility and Altruism, the individual is very likely to balance the two contradictory forces towards their own interest and likely to the detriment of others.

Anticipatory defending and control-oriented marking are highly correlated (see Table 4) but are different in nature. Control-oriented marking is an overt communication to others that the territory is claimed (Brown et al., 2005). It is a display intended to persuade others not to attempt an infringement. Anticipatory defending are behaviors that function to prevent or thwart an infringement. For example, a sign that indicates who is authorized to access is a control-oriented marking behavior. A keypad lock where only authorized individuals have a code is an anticipatory defense. Results indicated that Honesty-Humility negatively predicted anticipatory defending and was the only significant predictor despite Emotionality, Agreeableness, and Openness having significant facets in a separate analyses. When an individual is less concerned with accumulating resources or more concerned with how their actions may harm others, they are less likely to employ anticipatory defenses in the workplace. Brown et al. (2005) discussed that as individuals become more preoccupied with a territorial object, it may detract from their work duties and could lead to social fragmentation in the organization. Based on the significant results from control-oriented marking and anticipatory defending, it is likely that individuals low in Honesty-Humility may induce the negative outcomes of territoriality discussed by Brown and colleagues (2005). In this instance, cognitive appraisal theory can explain mechanisms for why individuals high in Honesty-Humility are less likely to employ anticipatory defenses; the maintenance of control over an object is simply incongruent or of low valence to their goals. If an individual high in Honesty-Humility is not concerned with wealth, status, or prestige, maintaining control or thwarting an infringement on an object is not aligned with their socio-behavioral goals as it runs against the fabric of their personality. On the other hand, individuals low in Honesty-Humility are the polar opposite. These individuals are concerned with placement in the social hierarchy and are characterized by a sense of entitlement. Therefore, these



individuals are likely to place a high valence on maintaining control over an object as it communicates their self-perceived status in a hierarchy. This assertion is also supported by the facet-level results through the significance of Modesty as a negative predictor which Lee and Ashton (2009) described as an individual's lack of entitlement and superiority.

Only Altruism was a significant predictor of reactionary defending; however, Altruism was not a significant predictor in the facet-level analysis as scores in Modesty, Gentleness, and Flexibility accounted for the variance in this typology. Reactionary defenses are behavioral displays meant to communicate an emotional expression towards an infringement, restore the control of the object, or serve to deter a future infringement. Due to Altruism's operational definition of avoiding harm and having an inclination towards empathy, its negative relationship with reactionary defending may cause an individual to appraise a situation differently as individuals high in Altruism are likely to consider the repercussions over the actions in responding to an infringement and likely to employ perspective taking when attributing the causes of the responsible party due to Altruism's linkage to sympathy (Lee & Ashton, 2009). Conversely, individuals low in Altruism are seen as hard-hearted (Lee & Ashton, 2009) and may be less inclined to be sympathetic to another's transgression and unconcerned with how their response may affect the infringing party. This also supports Brown and Robinson's (2011) findings that anger partially mediated direct and indirect reactionary defenses of a territorial infringement. Based on Lee and Ashton's (2009) description of individuals low in Altruism being hard-hearted and not upset at the prospect of hurting others, anger was described by Lazarus (2006) as an attack action tendency or impulse. When an individual high in Altruism experiences an infringement, despite any anger they may feel, is likely to react less from experiencing anger, and thus less likely to employ a reactionary defense as they may find a

reactionary behavior incongruent with their behavior or find another means to cope with the infringement.

## **General Conclusions**

Combining the results from the dimension and facet-level analyses, it would seem that an individual high in entitlement, especially when coupled with a low willingness to compromise and/or a disinterest in considering how their actions will affect others, are more likely to engage in territorial work behaviors. In the work place, this individual would most likely appear as self-centered, resource hungry, controlling, and combative. Results also suggested a different picture of someone willing to engage in territorial work behavior. An individual who is seeking to avoid conflict, demonstrated by Gentleness's significance across all four typologies, would suggest that this person would use territorial behavior as a means to subtly communicate to others that an object is claimed as means to assert control without a direct confrontation. However, there is evidence of suppressor effects and therefore caution is urged in interpreting findings where there are two or more facets in the same dimensions present until this study is replicated, cross-validated, and these effects are examined thoroughly. A specific investigation into the suppression effects between Gentleness and Flexibility is discussed in the Limitations subsection.

Using facets to predict territorial behaviors over dimensions offered some advantages. First, facets provide a more straight-forward means of inference through bandwidth-matching. Just as the dependent variables were narrowly defined behaviors with specific motivations and theoretical antecedents, the independent variables being equally narrow and distinct provided a logical means to explain the linkage between the variables. Second, due to obfuscating effects of

insignificant facets contained in dimension-level scores or the contrary predictive ability of facets, specifically for Extraversion and Agreeableness, facet-level analysis revealed significant variables that would have remained obscured if analyses were only conducted at the dimension-level. Finally, provided a clearer pattern of how personality traits can predict territorial behaviors. Modesty, Gentleness, and Flexibility were significant predictors the different forms of territorial work behaviors. Modesty predicted control-oriented marking, anticipatory defending, and reactionary defending. Gentleness was significant across all forms of territorial work behaviors and Flexibility predicted both marking behaviors and reactionary defending. However, there is evidence of suppression effects between these two variables and this relationship will be discussed in the Limitations section. Creativity predicted both marking behaviors and Social-Self Esteem was significant for control-oriented marking and anticipatory defending. The directions of predictions for all facets were uniform across the typologies territorial work behaviors indicating that these traits present influence on territorial work behaviors as whole and can be utilized to build a theoretical ‘territorial personality.’

Quantile regression provided unique insights to the data in two specific ways. First, quantile regression demonstrated that certain traits may have non-linear relationships with territorial behavior. This is easily examined through analyzing the plots (see Figures 6-9, Appendix A) provided by the QUANTREG package in R. Since the y-axis is the marked in unit changes of the dependent variable, any increase or decrease of slope that extends beyond the confidence interval is likely to indicate a non-linear relationship. For example, low levels of Extraversion seem to decrease identity-oriented marking behaviors while average levels seem to promote it. This relationship is not easily shown with typical regression approaches unless additional procedures are taken highlights another advantage of quantile regression plots in

detecting mixed effects. This can also be evidenced through a quantile regression table (see Tables 14-17) where the coefficients change from negative to positive or positive to negative. Another similar contribution is the level of trait when it leaves or returns to the zero line. This would indicate the level of the trait that ceases to have an effect on the relationship between the variables. This is especially useful for a construct like territorial work behavior as the conditional quantiles are interchangeable with the percentiles of a distribution. Noting the quantile that returns to or leaves the zero line is helpful when seeking to understand what level of a trait increases or decreases the dependent variable. These and additional implications are discussed next.

### **Theoretical Implications**

Aside from adding to the body of literature in how work behaviors are influenced by personality traits, the results have specific implications for the literature in territoriality as well as personality. First, this is the first study examining the relationship between personality traits and territorial work behaviors. When the significant traits are taken into account for other variables that predict territorial work behaviors, like psychological ownership, a model of antecedents to territorial behavior can begin to come to fruition. Second, this study underscored social aspect of territorial work behaviors as many of the facets were involved with interpersonal communication and socialization. Lastly, though this study did not specifically test for cognitive appraisal theory's validity in territorial work behavior, it did provide foundational variables for researchers interested in appraisal theory and territoriality to discover the mechanisms between the two.

In addition to the implications for territorial work behaviors, this study provided support for examining facet-level traits when examining narrow and specific behaviors. Though the

hypothesis of bandwidth-matching should not be the only criteria a researcher should select variables for, it did provide evidence to the arguments of Hastings and O'Neil (2009) as well as van Zyl and de Bruin (2018) as facet-level traits uncovered relationships not found at the dimension level. This was largely evidenced by the obfuscating effects of facets producing different directions of predictions and through dimension-level scores possibly being rendered insignificant due to dimension scores being aggregated by significant and insignificant facets. This was evidenced well in Extraversion's facets when predicting anticipatory defending. Similarly, the use of quantile regression provides researchers a tool that is robust to outliers and can offer predictions for portions of the distribution that OLS regression cannot perform without using methods beyond typical regression like moderation analyses. However, the usability of quantile regression is best-suited for certain conditions which will be discussed in detail in the limitations section.

## **Practical Implications**

Practitioners seeking to control territorial behaviors can utilize this research in a few ways. First, understanding that certain individual differences are related to territorial behaviors are typically beyond the control of most organizations. However, by understanding how personality gives rise to territorial behaviors, practitioners can actively place safeguards or direct managers to pay closer attention to how resources and other objects of territoriality are distributed can stymie gross exaggerations of territorial behavior. Secondly, practitioners can also utilize personality inventories to help diagnose organizational issues attributed to territoriality in an effort to help individuals understand how their personality traits interact with territorial work behaviors to produce workarounds or create training interventions. The results

also give rise to a potential positive outcome of territoriality and serve to indicate whether an intervention is necessary. The use of territoriality in individuals higher in Gentleness illuminate the potential for territorial work behaviors to reduce or avoid conflict. It could be extrapolated that when resources are scarce or need to be controlled and territoriality is present without conflict, a productive form of territoriality has developed. This further serves territoriality theory as well due to early theorists hypothesizing that territoriality has adaptive and maladaptive outcomes.

Practitioners should take note of the positives of workplace territoriality, how they are manifested through personality, and the possible motivations of an individual's or group's behavior. Using identity-oriented marking as an example; the Creativity facet of Openness to Experience promoted this behavior. Previously mentioned findings by Komulainen et al. (2014) demonstrated that the dimension of Openness to Experience resulted in increased reactivity to stressors. Komulainen et al. (2014) suggested that Openness to Experience has adaptive effects on an individual's environment using appraisal theory. This would mean that individuals high in Openness and Creativity tend to adapt their environments to meet their goals, show group affiliation, and demonstrate their creative side to others. As discussed on page 3 of this thesis, Ashforth and Mael (1989) stated that "individual's organization may provide one answer to the question, 'Who am I?'" (p. 22), then identity-oriented marking behavior provides one answer to the question 'Who am I here?' As such, identity-oriented marking may help enhance beneficial constructs such as organizational commitment, organization-based psychological ownership, and possibly further similar relatedness-based constructs. Practitioners would be prudent to understand the possible motivations behind individual or group-based territorial work behaviors and examine the opportunity costs in permitting them to persist.

## **Future Research**

As described throughout this thesis, territorial work behaviors have the capacity to have beneficial and detrimental outcomes between individuals and within an organization. Future research should continue to understand the outcomes of territoriality and specifically identify the adaptive and maladaptive types of territorial behaviors. There may also be mixed effects or a point to where territoriality ceases to be a productive behavior and future research should indicate where this point occurs so organizations can create structures for certain levels of territoriality to exist. The current body of research leaves this point unclear.

Future research into territorial behavior should also include other independent variables associated with parallel lines of research. The body of literature in counterproductive work behavior (CWB) contains a myriad of variables to include such as incivility, social undermining, political skill, hostile attribution bias, and equity sensitivity. The measures are sufficiently narrow to match the typologies of territorial work behaviors and their ability to produce incremental variance over other predictors such as personality and psychological ownership should be investigated. Similarly, the Dark Triad (Machiavellianism, narcissism, and psychopathy), presents another opportunity to compare these variables to personality. The Dark Triad has been shown to have links to personality and may present incremental variance over the significant personality traits this research identified.

A final direction would be to investigate the moderating effects of personality variables as they predict territorial work behaviors. For instance, organization-based psychological ownership was found to moderate the relationship between territoriality and knowledge-hiding (Peng, 2013). Significant personality dimensions such as Honesty-Humility or facets such as

Social-Self Esteem could produce moderating effects on territorial behaviors similar to Peng (2013). Drawing from the literature into CWB, Bowling and Eschleman (2010) investigated the moderating effects of Conscientiousness, Agreeableness, and Negative Affectivity on the relationships between role stressors, organizational constraints, and interpersonal conflict on both types of CWB's. The results from the moderator analyses indicated that high Negative Affectivity or low Conscientiousness produced stronger, positive relationships between stressors and counterproductive work behaviors (Bowling & Eschleman, 2010, p. 98). A similar investigation for moderating effects of personality on territorial work behaviors and outcomes similar to Peng (2013) are warranted to further understand how these variables interact with each other.

## **Limitations**

This research has several limitations that should be acknowledge before concluding. First, the research was cross-sectional in nature and conducted with a sample of MTurk workers. Due to characteristics and professions unique to MTurk participants, data may be biased in a way that cannot be accounted for. Therefore, cross-validation is recommended with a more diverse sample to control for sample bias. In addition to the cross-sectional nature of the data, all measures were collected using self-report questionnaires which may indicate common method bias. Spector (2006) suggested that common method bias issues may be overstated. However, the data was collected anonymously and taken outside of the participants' place of employment, so common method effects such as inflated relationships may not pose a serious problem. Conversely, using self-report data to measure the frequency of territorial work behaviors may pose an issue as participants may have underreported the extent of their behaviors. Reasons for



this could be due to recall bias, social desirability bias, or lacking the self-awareness. To counteract the effects of a cross-sectional design and self-report data, future research should seek to use peer or supervisor reports and longitudinal data.

Another limitation of the research concerns the evidence of range restriction. Aside from identity-oriented marking, the territoriality mean scores were low (see Table 3). Conversely, many of the independent variable dimensions and facets were missing low observed ranges (see Table 3 and Table 20, Appendix A). As such, the lack of higher scores in territorial work behaviors and low scores in personality variables likely suppressed the true correlation and the true effect of the beta coefficients due to restricted range. A similar limitation that was alluded to in the results section of quantile regression was the issue of sample size. Judging from the performance in the tail-ends of the distribution in quantile regression, the lack of data in the tails is another limitational concern for Research Question Two. In their investigation into quantile regression, van Zyl and de Bruin (2018) used a sample size of 952 working adults (p. 46). The sample size in the current study was merely 150 participants. With a larger sample size the confidence intervals would ideally be sufficiently narrow enough to make an accurate determination significant effects and a larger sample size would leverage the power of quantile regression. Li (2015) noted that the tails of a distribution are the primary places of interests for behavioral research as they indicate the extremes of behavior and due to the sample size of the current study, likely insufficient data in the tails to achieve significant power to model the entire distribution for quantile regression.

First mentioned in the General Conclusions sub-section of the Discussion, this study found evidence of suppression effects between Gentleness and Flexibility in the Agreeableness

dimension. As suggested by MacKinnon, Krull, and Lockwood (2000), in each of the final model analyses of Research Question One Gentleness and Flexibility coefficients were compared when one was removed from the equation. It was found that neither was significant alone in identity-oriented marking despite both being significant when both variables were present in the initial analysis, lending support to suspecting cooperative suppression effects. In control-oriented marking and anticipatory defending, Gentleness remained significant but had a lower beta-coefficient when Flexibility was removed. A similar result occurred for Flexibility in the reactionary defending analysis when Gentleness was removed. It is important to note that Gentleness was not found to have any significant correlations with the dependent variables. Alternative exploratory analyses utilized (backward regression) produced similar significant coefficients for Gentleness in control-oriented marking, anticipatory defending, and reactionary defending. This post-hoc analysis found similar results reported for Flexibility as well. Additionally, these concerns apply to Social Self-Esteem and Social Boldness results in the exploratory models and caution is urged until this study has been cross-validated and replicated.

A final limitation to discuss is the familywise error rate. The same sample was utilized for comparison of 11 variables to investigate hypotheses; eight comparison variables for the individual dimension investigations of facets; 14, 18, and 19 variable comparisons for research question one, and seven variable comparisons for research question two. This brings the familywise error rate to .431 for the hypothesis tests; .570 for the individual facets (due to the use of  $p < .10$  for inclusion into the final models); .512, .623, .603, and .512 for research question one in identity-oriented marking, control-oriented marking, anticipatory defending, and reactionary defending models respectively; and .302 for research question two. Alternatively stated, this would bring the probability of erroneously rejecting the null hypothesis equal to

43.1% in the hypothesis tests as an example. There are a few ways to correct  $p$ -values to maintain an acceptable alpha level of .05. One of the more widely accepted versions is the Bonferroni method and the Holm-Bonferroni sequential method also known as the sequentially rejective Bonferroni test (Holm, 1979). For hypothesis testing, the Bonferroni method would call for utilizing an alpha level of .0045 for significance testing in the hypotheses. This value is reached by dividing the alpha by the number of comparisons. The Bonferroni correction would have caused the current study to be underpowered as discussed by Nakagawa (2004). As such, the increase in familywise error rate was not controlled for in significance reporting and therefore replication is encouraged.

## **CONCLUSION**

Results from the current study suggest that personality traits at the dimension- and facet-levels are indeed associated with territorial work behaviors. Given the significant facets and dimensions, it would seem that territorial work behavior can be driven by different motives. Territoriality can be used as means to reduce conflict or be driven by a desire to express an individual's sense of superiority to others. This would also confirm the proposition that territorial work behaviors have adaptive and maladaptive consequences in the workplace. One on hand, territoriality serves to reduce or avoid conflict through marking behaviors and anticipatory defenses. On the other hand, it can be a means for an individual to communicate their perception of their status and superiority to others either through controlling objects or defending them. Additionally, individuals that believe they are liked by others or are accommodating tended to be less territorial suggesting that territorial behaviors erode social currency despite their ability to avoid conflict. However, there seems to be a trade-off between territorial work behavior's conflict reduction capabilities and the impression it gives to others as it has a predictable increase in individuals who seek to be genuine and sincere with others.

## **APPENDIX A: TABLES AND FIGURES**

Table 18

*HEXACO Dimensions and Descriptions*

<p><b>Honesty-Humility</b></p> <p>Persons with very high scores on the Honesty-Humility scale avoid manipulating others for personal gain, feel little temptation to break the rules, are uninterested in lavish wealth and luxuries, and feel no special entitlement to elevated social status. Conversely, persons with very low scores on this scale will flatter others to get what they want, are inclined to break the rules for personal profit, are motivated by material gain, and feel a strong sense of self-importance.</p>
<p><b>Emotionality</b></p> <p>Persons with very high scores on the Emotionality scale experience fear of physical dangers, experience anxiety in response to life's stresses, feel a need for emotional support from others and feel empathy and sentimental attachments with others. Conversely, persons with very low scores on this scale are not deterred by the prospect of physical harm, feel little worry even in stressful situations, have little need to share their concerns with others, and feel emotionally detached from others.</p>
<p><b>Extraversion</b></p> <p>Persons with very high scores on the Extraversion scale feel positive about themselves, feel confident when leading or addressing groups of people, enjoy social gatherings and interactions, and experience positive feelings of enthusiasm and energy. Conversely, persons with very low scores on this scale consider themselves unpopular, feel awkward when they are the center of social attention, are indifferent to social activities, and feel less lively and optimistic than others do.</p>
<p><b>Agreeableness</b></p> <p>Persons with very high scores on the Agreeableness scale forgive the wrongs that they suffered, are lenient in judging others, are willing to compromise and cooperate with others, and can easily control their temper. Conversely, persons with very low scores on this scale hold grudges against those who have harmed them, are rather critical of others' shortcomings, are stubborn in defending their point of view, and feel anger readily in response to mistreatment.</p>
<p><b>Conscientiousness</b></p> <p>Persons with very high scores on the Conscientiousness scale organize their time and their physical surroundings, work in a disciplined way toward their goals, strive for accuracy and perfection in their tasks, and deliberate carefully when making decisions. Conversely, persons with very low scores on this scale tend to be unconcerned with orderly surroundings or schedules, avoid difficult tasks or challenging goals, are satisfied with work that contains some errors, and make decisions on impulse or with little reflection.</p>
<p><b>Openness to Experience</b></p> <p>Persons with very high scores on the Openness to Experience scale become absorbed in the beauty of art and nature, are inquisitive about various domains of knowledge, use their imagination freely in everyday life, and take an interest in unusual ideas or people. Conversely, persons with very low scores on this scale are rather unimpressed by most works of art, feel little intellectual curiosity, avoid creative pursuits, and feel little attraction toward ideas that may seem radical or unconventional.</p>

*Note.* Domains of the HEXACO-200. Adapted from Lee & Ashton (2009).

Table 19

*Facets of HEXACO Dimensions with Descriptions*

Honesty-Humility
<b>Sincerity:</b> assesses a tendency to be genuine in interpersonal relations. Low scorers will flatter others or pretend to like them in order to obtain favors, whereas high scorers are unwilling to manipulate others.
<b>Fairness:</b> assesses a tendency to avoid fraud and corruption. Low scorers are willing to gain by cheating or stealing, whereas high scorers are unwilling to take advantage of other individuals or society at large.
<b>Greed Avoidance:</b> assesses a tendency to be uninterested in possessing lavish wealth, luxury goods, and signs of high social status. Low scorers want to enjoy and to display wealth and privilege, whereas high scorers are not especially motivated by monetary or social-status considerations.
<b>Modesty:</b> assesses a tendency to be modest and unassuming. Low scorers consider themselves as superior and as entitled to privileges that others do not have, whereas high scorers view themselves as ordinary people without any claim to special treatment.
Emotionality
<b>Fearfulness:</b> assesses a tendency to experience fear. Low scorers feel little fear of injury and are relatively tough, brave, and insensitive to physical pain, whereas high scorers are strongly inclined to avoid physical harm.
<b>Anxiety:</b> assesses a tendency to worry in a variety of contexts. Low scorers feel little stress in response to difficulties, whereas high scorers tend to become preoccupied even by relatively minor problems.
<b>Dependence:</b> assesses one's need for emotional support from others. Low scorers feel self-assured and able to deal with problems without any help or advice, whereas high scorers want to share their difficulties with those who will provide encouragement and comfort.
<b>Sentimentality:</b> assesses a tendency to feel strong emotional bonds with others. Low scorers feel little emotion when saying good-bye or in reaction to the concerns of others, whereas high scorers feel strong emotional attachments and an empathic sensitivity to the feelings of others.
Extraversion
<b>Social Self-Esteem:</b> scale assesses a tendency to have positive self-regard, particularly in social contexts. High scorers are generally satisfied with themselves and consider themselves to have likable qualities, whereas low scorers tend to have a sense of personal worthlessness and to see themselves as unpopular.

Table 19 continued

*Facets of HEXACO Dimensions with Descriptions*

<b>Liveliness:</b> assesses one's typical enthusiasm and energy. Low scorers tend not to feel especially cheerful or dynamic, whereas high scorers usually experience a sense of optimism and high spirits.
Agreeableness
<b>Forgivingness:</b> assesses one's willingness to feel trust and liking toward those who may have caused one harm. Low scorers tend "hold a grudge" against those who have offended them, whereas high scorers are usually ready to trust others again and to re-establish friendly relations after having been treated badly.
<b>Gentleness:</b> assesses a tendency to be mild and lenient in dealings with other people. Low scorers tend to be critical in their evaluations of others, whereas high scorers are reluctant to judge others harshly.
<b>Flexibility:</b> assesses one's willingness to compromise and cooperate with others. Low scorers are seen as stubborn and are willing to argue, whereas high scorers avoid arguments and accommodate others' suggestions, even when these may be unreasonable.
<b>Patience:</b> assesses a tendency to remain calm rather than to become angry. Low scorers tend to lose their tempers quickly, whereas high scorers have a high threshold for feeling or expressing anger.
Conscientiousness
<b>Organization:</b> assesses a tendency to seek order, particularly in one's physical surroundings. Low scorers tend to be sloppy and haphazard, whereas high scorers keep things tidy and prefer a structured approach to tasks.
<b>Diligence:</b> assesses a tendency to work hard. Low scorers have little self-discipline and are not strongly motivated to achieve, whereas high scorers have a strong "work ethic" and are willing to exert themselves.
<b>Perfectionism:</b> assesses a tendency to be thorough and concerned with details. Low scorers tolerate some errors in their work and tend to neglect details, whereas high scorers check carefully for mistakes and potential improvements.
<b>Prudence:</b> assesses a tendency to deliberate carefully and to inhibit impulses. Low scorers act on impulse and tend not to consider consequences, whereas high scorers consider their options carefully and tend to be cautious and self-controlled.



Table 19 continued

*Facets of HEXACO Dimensions with Descriptions*

Openness to Experience
<b>Aesthetic Appreciation:</b> assesses one's enjoyment of beauty in art and nature. Low scorers tend not to become absorbed in works of art or natural wonders, whereas high scorers have a strong appreciation of various art forms and natural wonders.
<b>Inquisitiveness:</b> assesses a tendency to seek information about, and experience with, the natural and human world. Low scorers have little curiosity about the natural or social sciences, whereas high scorers read widely and are interested in travel.
<b>Creativity:</b> assesses one's preference for innovation and experiment. Low scorers have little inclination for original thought, whereas high scorers actively seek new solutions to problems and express themselves in art.
<b>Unconventionality:</b> assesses a tendency to accept the unusual. Low scorers avoid eccentric or nonconforming persons, whereas high scorers are receptive to ideas that might seem strange or radical.
Interstitial Scale
<b>Altruism (versus Antagonism):</b> assesses a tendency to be sympathetic and soft-hearted toward others. High scorers avoid causing harm and react with generosity toward those who are weak or in need of help, whereas low scorers are not upset by the prospect of hurting others and may be seen as hard-hearted.

*Note.* Facets of the HEXACO-200. Adapted from Lee & Ashton (2009)

Table 20  
*Descriptive Statistics of Facets*

Variable	Mean	SD	Observed Range	Possible Range	Internal Consistency
Sincerity (H)	4.93	1.11	2.75 - 7.00	1 -7	.84
Fairness (H)	5.21	1.17	2.63 - 7.00	1 -7	.82
Greed Avoidance (H)	4.34	1.19	1.13 - 6.88	1 -7	.83
Modesty (H)	5.18	1.19	1.75 - 7.00	1 -7	.87
Fearfulness (E)	4.30	1.08	1.50 - 6.75	1 -7	.81
Anxiety (E)	4.26	1.25	1.38 - 6.88	1 -7	.85
Dependence (E)	3.72	0.95	1.13 - 6.25	1 -7	.77
Sentimentality (E)	5.00	0.89	2.88 - 6.88	1 -7	.74
Social Self-Esteem (X)	5.36	1.17	2.25 - 7.00	1 -7	.89
Social Boldness (X)	4.18	1.17	1.38 - 6.88	1 -7	.85
Sociability (X)	4.14	1.19	1.00 - 6.50	1 -7	.84
Liveliness (X)	4.71	1.25	1.25 - 7.00	1 -7	.88
Forgiveness (A)	3.69	1.18	1.00 - 6.38	1 -7	.87
Gentleness (A)	4.61	0.94	1.88 - 7.00	1 -7	.78
Flexibility (A)	4.30	1.04	1.63 - 7.00	1 -7	.81
Patience (A)	4.52	1.07	1.13 - 7.00	1 -7	.81
Organization (C)	5.18	1.08	1.75 - 7.00	1 -7	.85
Diligence (C)	5.08	1.04	2.63 - 7.00	1 -7	.82
Perfectionism (C)	5.28	0.85	3.00 - 7.00	1 -7	.75
Prudence (C)	5.18	0.90	3.13 - 7.00	1 -7	.79
Aesthetic Appreciation (O)	4.94	1.08	2.13 - 7.00	1 -7	.80
Inquisitiveness (O)	5.05	1.01	2.25 - 7.00	1 -7	.76
Creativity (O)	4.51	1.05	1.75 - 7.00	1 -7	.79
Unconventionality (O)	4.51	0.88	2.25 - 6.63	1 -7	.66

*Note.*  $n = 150$ . Internal consistency measured using Cronbach's  $\alpha$ .

Table 21

*Zero-order Correlations among Facets*

Variable	1	2	3	4	5	6	7	8	9	10
1. Identity-Oriented Marking	-									
2. Control-Oriented Marking	<b>.64**</b>	-								
3. Anticipatory Defending	<b>.57**</b>	<b>.87**</b>	-							
4. Reactionary Defending	<b>.56**</b>	<b>.65**</b>	<b>.66**</b>	-						
5. H1- Sincerity	<b>-.21**</b>	<b>-.20*</b>	-.13	<b>-.24**</b>	-					
6. H2- Fairness	-.10	<b>-.18*</b>	-.12	-.16	<b>.52**</b>	-				
7. H3- Greed Avoidance	<b>-.21*</b>	<b>-.32**</b>	<b>-.31**</b>	<b>-.26**</b>	<b>.51**</b>	<b>.27**</b>	-			
8. H4- Modesty	<b>-.27**</b>	<b>-.42**</b>	<b>-.35**</b>	<b>-.43**</b>	<b>.62**</b>	<b>.43**</b>	<b>.63**</b>	-		
9. E1- Fearfulness	-.08	-.07	-.06	-.10	-.02	<b>.20*</b>	.12	<b>.18*</b>	-	
10. E2- Anxiety	0.10	.09	.11	.03	-.08	.01	.05	.00	<b>.53**</b>	-
11. E3- Dependence	<b>.17*</b>	.12	<b>.19*</b>	.09	<b>-.21**</b>	.02	-.14	-.07	<b>.31**</b>	<b>.20*</b>
12. E4- Sentimentality	.11	-.14	-.12	-.09	<b>.29**</b>	<b>.35**</b>	<b>.16*</b>	<b>.37**</b>	<b>.21*</b>	<b>.23**</b>
13. X1- Social Self-Esteem	-.01	-.17*	<b>-.23**</b>	-.09	<b>.26**</b>	<b>.33**</b>	.02	.13	<b>-.28**</b>	<b>-.44**</b>
14. X2- Social Boldness	<b>.23**</b>	.14	.12	.19*	-.02	-.10	-.21**	-.20*	<b>-.47**</b>	<b>-.53**</b>
15. X3- Sociability	.12	.05	.03	.08	-.08	-.05	<b>-.30**</b>	-.11	<b>-.29**</b>	<b>-.48**</b>
16. X4- Liveliness	.12	.03	-.04	.04	.10	.12	-.14	-.04	<b>-.38**</b>	<b>-.56**</b>
17. A1- Forgiveness	.01	.08	.08	-.12	.05	.15	-.06	-.07	<b>-.22**</b>	<b>-.39**</b>
18. A2- Gentleness	.10	.08	.12	-.06	<b>.26**</b>	<b>.32**</b>	.02	<b>.18*</b>	-.05	<b>-.23**</b>
19. A3- Flexibility	-.13	<b>-.22**</b>	-.13	<b>-.32**</b>	<b>.40**</b>	<b>.28**</b>	<b>.24**</b>	<b>.36**</b>	.04	<b>-.29**</b>
20. A4- Patience	-.08	-.15	-.12	<b>-.18*</b>	<b>.29**</b>	<b>.20*</b>	.07	<b>.19*</b>	-.17*	<b>-.36**</b>
21. C1- Organization	.09	-.02	-.06	.01	<b>.16*</b>	<b>.21*</b>	.04	<b>.18*</b>	-.10	<b>-.24**</b>
22. C2- Diligence	.09	-.06	-.01	.02	<b>.42**</b>	<b>.33**</b>	.16	<b>.23**</b>	<b>-.34**</b>	<b>-.27**</b>
23. C3- Perfectionism	.04	-.09	-.07	-.11	<b>.33**</b>	<b>.26**</b>	.10	<b>.29**</b>	-.03	.15
24. C4- Prudence	-.12	<b>-.19*</b>	-.12	<b>-.19*</b>	<b>.49**</b>	<b>.42**</b>	<b>.30**</b>	<b>.47**</b>	.06	-.06
25. O1- Aesthetic Appreciation	<b>.21**</b>	.03	.04	.02	<b>.32**</b>	<b>.22**</b>	.07	.14	-.08	.02
26. O2- Inquisitiveness	0.1	-.04	-.01	-.04	<b>.22**</b>	.01	.11	.11	<b>-.26**</b>	-.06
27. O3- Creativity	<b>.32**</b>	<b>.17*</b>	<b>.18*</b>	<b>.18*</b>	<b>.18*</b>	-.04	<b>-.18*</b>	-.04	<b>-.36**</b>	-.16
28. O4- Unconventionality	.13	-.03	.04	.08	<b>.21*</b>	-.15	-.03	.01	<b>-.39**</b>	-.08
29. Altruism	-.10	<b>-.27**</b>	<b>-.22**</b>	<b>-.30**</b>	<b>.58**</b>	<b>.51**</b>	<b>.35**</b>	<b>.62**</b>	.13	.05

Note. n = 150. Significant correlations are noted in bold-face font.

\* : Correlation is significant at p < .05 (2-tailed).

\*\* : Correlation is significant at p < .01 (2-tailed).

Table 21 continued

*Zero-order Correlations among Facets*

Variable	11	12	13	14	15	16	17	18	19	20
1. Identity-Oriented Marking										
2. Control-Oriented Marking										
3. Anticipatory Defending										
4. Reactionary Defending										
5. H1- Sincerity										
6. H2- Fairness										
7. H3- Greed Avoidance										
8. H4- Modesty										
9. E1- Fearfulness										
10. E2- Anxiety										
11. E3- Dependence	-									
12. E4- Sentimentality	<b>.29**</b>	-								
13. X1- Social Self-Esteem	-.12	<b>.33**</b>	-							
14. X2- Social Boldness	-.01	.08	<b>.53**</b>	-						
15. X3- Sociability	<b>.27**</b>	.12	<b>.49**</b>	<b>.69**</b>	-					
16. X4- Liveliness	-.01	<b>.16*</b>	<b>.75**</b>	<b>.61**</b>	<b>.59**</b>	-				
17. A1- Forgiveness	<b>.21*</b>	-.07	<b>.16*</b>	<b>.27**</b>	<b>.37**</b>	<b>.26**</b>	-			
18. A2- Gentleness	.15	<b>.23**</b>	<b>.27**</b>	.09	<b>.30**</b>	<b>.28**</b>	<b>.56**</b>	-		
19. A3- Flexibility	.14	<b>.18*</b>	<b>.26**</b>	.04	<b>.24**</b>	<b>.21*</b>	<b>.43**</b>	<b>.60**</b>	-	
20. A4- Patience	.02	.12	<b>.37**</b>	<b>.25**</b>	<b>.30**</b>	<b>.31**</b>	<b>.40**</b>	<b>.57**</b>	<b>.53**</b>	-
21. C1- Organization	<b>-.22**</b>	<b>.22**</b>	<b>.54**</b>	<b>.27**</b>	<b>.22**</b>	<b>.41**</b>	-.07	.11	<b>.16*</b>	.14
22. C2- Diligence	<b>-.22**</b>	<b>.29**</b>	<b>.50**</b>	<b>.36**</b>	<b>.20*</b>	<b>.43**</b>	.09	.13	.11	.14
23. C3- Perfectionism	<b>-.21*</b>	<b>.37**</b>	<b>.22**</b>	.08	-.03	.10	-.15	.04	.06	.14
24. C4- Prudence	<b>-.21**</b>	<b>.31**</b>	<b>.38**</b>	.05	.00	.13	<b>-.18*</b>	.13	<b>.21*</b>	<b>.27**</b>
25. O1- Aesthetic Appreciation	.01	<b>.35**</b>	<b>.25**</b>	<b>.30**</b>	.14	<b>.23**</b>	.07	.14	.13	<b>.25**</b>
26. O2- Inquisitiveness	-.14	<b>.21*</b>	<b>.21**</b>	<b>.27**</b>	.11	<b>.18*</b>	-.05	.03	.10	<b>.30**</b>
27. O3- Creativity	.06	<b>.18*</b>	<b>.27**</b>	<b>.50**</b>	<b>.36**</b>	<b>.41**</b>	.14	<b>.17*</b>	.08	<b>.24**</b>
28. O4- Unconventionality	-.06	.15	.09	<b>.27**</b>	.08	.15	-.02	-.03	-.04	.15
29. Altruism	.09	<b>.64**</b>	<b>.37**</b>	.04	.11	<b>.17*</b>	.12	<b>.35**</b>	<b>.40**</b>	<b>.43**</b>

Note. n = 150. Significant correlations are noted in bold-face font.

\* : Correlation is significant at  $p < .05$  (2-tailed).

\*\* : Correlation is significant at  $p < .01$  (2-tailed).

Table 21 continued

*Zero-order Correlations among Facets*

Variable	21	22	23	24	25	26	27	28	29
1. Identity-Oriented Marking									
2. Control-Oriented Marking									
3. Anticipatory Defending									
4. Reactionary Defending									
5. H1- Sincerity									
6. H2- Fairness									
7. H3- Greed Avoidance									
8. H4- Modesty									
9. E1- Fearfulness									
10. E2- Anxiety									
11. E3- Dependence									
12. E4- Sentimentality									
13. X1- Social Self-Esteem									
14. X2- Social Boldness									
15. X3- Sociability									
16. X4- Liveliness									
17. A1- Forgiveness									
18. A2- Gentleness									
19. A3- Flexibility									
20. A4- Patience									
21. C1- Organization	-								
22. C2- Diligence	<b>.55**</b>	-							
23. C3- Perfectionism	<b>.46**</b>	<b>.54**</b>	-						
24. C4- Prudence	<b>.49**</b>	<b>.48**</b>	<b>.55**</b>	-					
25. O1- Aesthetic Appreciation	<b>.23**</b>	<b>.46**</b>	<b>.45**</b>	<b>.28**</b>	-				
26. O2- Inquisitiveness	<b>.27**</b>	<b>.38**</b>	<b>.49**</b>	<b>.32**</b>	<b>.62**</b>	-			
27. O3- Creativity	.14	<b>.37**</b>	<b>.35**</b>	.06	<b>.64**</b>	<b>.53**</b>	-		
28. O4- Unconventionality	.03	<b>.38**</b>	<b>.42**</b>	.03	<b>.49**</b>	<b>.48**</b>	<b>.61**</b>	-	
29. Altruism	<b>.24**</b>	<b>.43**</b>	<b>.50**</b>	<b>.47**</b>	<b>.40**</b>	<b>.32**</b>	<b>.24**</b>	<b>.22**</b>	-

Note. n = 150. Significant correlations are noted in bold-face font.

\* : Correlation is significant at  $p < .05$  (2-tailed).

\*\* : Correlation is significant at  $p < .01$  (2-tailed).

Table 22  
*Facets of Honesty-Humility and Territorial Marking Regression Results*

Predictors	Identity-Oriented Marking			Control-Oriented Marking			
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$	
Step 1 - Controls							
Sex	0.04	0.07	0.04	-0.03	0.07	-0.04	
Age	-0.01 <sup>†</sup>	0.00	0.19	-0.01	0.00	-0.13	
Tenure - Job	0.01	0.01	0.20	0.01	0.01	0.22	
Tenure - Organization	0.00	0.01	0.01	-0.01	0.01	-0.13	
R <sup>2</sup>			.03	R <sup>2</sup>			.02
Step 2 - “H” Facets							
Sex	0.07	0.07	0.08	0.04	0.07	0.04	
Age	-0.01	0.00	-0.12	0.00	0.00	-0.06	
Tenure - Job	0.01	0.01	0.13	0.01	0.01	0.14	
Tenure - Organization	0.01	0.01	0.06	0.00	0.01	-0.04	
Sincerity (H)	-0.06	0.20	-0.04	0.27	0.19	0.15	
Fairness (H)	0.01	0.17	0.01	-0.08	0.16	-0.05	
Greed Avoidance (H)	-0.12	0.16	-0.08	-0.20	0.15	-0.14	
Modesty (H)	-0.33 <sup>†</sup>	0.19	-0.21	<b>-0.66**</b>	<b>0.18</b>	<b>-0.41</b>	
R <sup>2</sup> /Δ R <sup>2</sup>			.10*/.07*	R <sup>2</sup> /Δ R <sup>2</sup>			.20**/.18**

Note. *n* = 150.

<sup>†</sup>: *p* < .1

\*: *p* < .05

\*\*: *p* < .01

Table 23

*Facets of Honesty-Humility and Territorial Defending Regression Results*

Predictors	Anticipatory Defending			Reactionary Defending		
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$
Step 1 - Controls						
Sex	-0.04	0.07	-0.04	-0.02	0.07	-0.03
Age	-0.01	0.00	-0.14	0.00	0.00	-0.11
Tenure - Job	0.01	0.01	0.10	0.01	0.01	0.10
Tenure - Organization	0.00	0.01	-0.01	0.00	0.01	0.02
	R <sup>2</sup> .01			R <sup>2</sup> .01		
Step 2 - “H” Facets						
Sex	0.03	0.07	0.03	0.04	0.07	0.05
Age	0.00	0.00	-0.10	0.00	0.00	-0.03
Tenure - Job	0.00	0.01	0.06	0.00	0.01	0.00
Tenure - Organization	0.01	0.01	0.07	0.01	0.01	0.10
Sincerity (H)	0.38 <sup>†</sup>	0.19	0.22	0.09	0.19	0.05
Fairness (H)	-0.05	0.16	-0.03	0.00	0.16	0.00
Greed Avoidance (H)	-0.28 <sup>†</sup>	0.15	-0.19	-0.02	0.15	-0.01
Modesty (H)	<b>-0.56**</b>	<b>0.18</b>	<b>-0.36</b>	<b>-0.75**</b>	<b>0.18</b>	<b>-0.47</b>
	R <sup>2</sup> /Δ R <sup>2</sup> .16**/.15**			R <sup>2</sup> /Δ R <sup>2</sup> .19**/.18**		

Note.  $n = 150$ .

<sup>†</sup>:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

Table 24

*Facets of Emotionality and Territorial Marking Regression Results*

Predictors	Identity-Oriented Marking			Control-Oriented Marking			
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$	
Step 1 - Controls							
Sex	0.04	0.07	0.04	-0.03	0.07	-0.04	
Age	-0.01 <sup>†</sup>	0.00	0.19	-0.01	0.00	-0.13	
Tenure - Job	0.01	0.01	0.20	0.01	0.01	0.22	
Tenure - Organization	0.00	0.01	0.01	-0.01	0.01	-0.13	
R <sup>2</sup>			.03	R <sup>2</sup>			.02
Step 2 - “E” Facets							
Sex	0.02	0.08	0.03	0.00	0.08	0.00	
Age	-0.01	0.00	-0.18	0.00	0.01	-0.03	
Tenure - Job	0.01	0.01	0.22	0.01	0.01	0.21	
Tenure - Organization	0.00	0.01	-0.04	-0.01	0.01	-0.18	
Fearfulness (E)	<b>-0.40*</b>	<b>0.16</b>	<b>-0.25</b>	<b>-0.34*</b>	<b>0.16</b>	<b>-0.21</b>	
Anxiety (E)	0.21	0.13	0.15	<b>0.27*</b>	<b>0.13</b>	<b>0.20</b>	
Dependence (E)	<b>0.31*</b>	<b>0.15</b>	<b>0.18</b>	<b>0.35*</b>	<b>0.15</b>	<b>0.21</b>	
Sentimentality (E)	0.18	0.20	0.08	<b>-0.45*</b>	<b>0.20</b>	<b>-0.21</b>	
R <sup>2</sup> /Δ R <sup>2</sup>			.10*/.07*	R <sup>2</sup> /Δ R <sup>2</sup>			.10*/.08*

Note.  $n = 150$ .

<sup>†</sup>:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$



Table 25

*Facets of Emotionality and Territorial Defending Regression Results*

Predictors	Anticipatory Defending			Reactionary Defending		
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$
Step 1 - Controls						
Sex	-0.04	0.07	-0.04	-0.02	0.07	-0.03
Age	-0.01	0.00	-0.14	0.00	0.00	-0.11
Tenure - Job	0.01	0.01	0.10	0.01	0.01	0.10
Tenure - Organization	0.00	0.01	-0.01	0.00	0.01	0.02
			R <sup>2</sup>	R <sup>2</sup>		
			.01	.01		
Step 2 - “E” Facets						
Sex	-0.02	0.07	-0.02	0.01	0.08	0.01
Age	0.00	0.00	-0.04	0.00	0.01	-0.05
Tenure - Job	0.01	0.01	0.09	0.01	0.01	0.10
Tenure - Organization	0.00	0.01	-0.06	0.00	0.01	-0.02
Fearfulness (E)	<b>-0.36*</b>	<b>0.16</b>	<b>-0.22</b>	-0.32 <sup>†</sup>	0.17	-0.19
Anxiety (E)	<b>0.30*</b>	<b>0.13</b>	<b>0.22</b>	0.17	0.14	0.13
Dependence (E)	<b>0.45**</b>	<b>0.15</b>	<b>0.27</b>	0.27 <sup>†</sup>	0.15	0.16
Sentimentality (E)	<b>-0.42*</b>	<b>0.19</b>	<b>-0.20</b>	-0.28	0.20	-0.13
			R <sup>2</sup> /Δ R <sup>2</sup>	R <sup>2</sup> /Δ R <sup>2</sup>		
			.12**/.10**	.05/.05		

Note.  $n = 150$ .

<sup>†</sup>:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

Table 26

*Facets of Extraversion and Territorial Marking Regression Results*

Predictors	Identity-Oriented Marking			Control-Oriented Marking			
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$	
Step 1 - Controls							
Sex	0.04	0.07	0.04	-0.03	0.07	-0.04	
Age	-0.01 <sup>†</sup>	0.00	0.19	-0.01	0.00	-0.13	
Tenure - Job	0.01	0.01	0.20	0.01	0.01	0.22	
Tenure - Organization	0.00	0.01	0.01	-0.01	0.01	-0.13	
R <sup>2</sup>			.03	R <sup>2</sup>			.02
Step 2 - “X” Facets							
Sex	0.08	0.07	0.09	0.02	0.07	0.02	
Age	-0.01 <sup>†</sup>	0.00	-0.22	0.00	0.00	-0.11	
Tenure - Job	0.01	0.01	0.21	0.01 <sup>†</sup>	0.01	0.24	
Tenure - Organization	0.00	0.01	0.01	-0.01	0.01	-0.12	
Social Self-Esteem (X)	<b>-0.51*</b>	<b>0.21</b>	<b>-0.31</b>	<b>-0.85**</b>	<b>0.21</b>	<b>-0.51</b>	
Social Boldness (X)	<b>0.44*</b>	<b>0.18</b>	<b>0.30</b>	0.35 <sup>†</sup>	0.18	0.24	
Sociability (X)	-0.09	0.16	-0.06	-0.05	0.16	-0.03	
Liveliness (X)	0.36 <sup>†</sup>	0.20	0.25	<b>0.44*</b>	<b>0.20</b>	<b>0.31</b>	
R <sup>2</sup> /Δ R <sup>2</sup>			.13**/.10**	R <sup>2</sup> /Δ R <sup>2</sup>			.14**/.12**

Note.  $n = 150$ .

<sup>†</sup>:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

Table 27

*Facets of Extraversion and Territorial Defending Regression Results*

Predictors	Anticipatory Defending			Reactionary Defending			
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$	
Step 1 - Controls							
Sex	-0.04	0.07	-0.04	-0.02	0.07	-0.03	
Age	-0.01	0.00	-0.14	0.00	0.00	-0.11	
Tenure - Job	0.01	0.01	0.10	0.01	0.01	0.10	
Tenure - Organization	0.00	0.01	-0.01	0.00	0.01	0.02	
R <sup>2</sup>			.01	R <sup>2</sup>			.01
Step 2 - “X” Facets							
Sex	0.02	0.07	0.02	0.02	0.07	0.03	
Age	0.00	0.00	-0.09	0.00	0.01	-0.11	
Tenure - Job	0.01	0.01	0.09	0.00	0.01	0.08	
Tenure - Organization	0.00	0.01	0.00	0.00	0.01	0.02	
Social Self-Esteem (X)	<b>-0.84**</b>	<b>0.21</b>	<b>-0.51</b>	<b>-0.57**</b>	<b>0.22</b>	<b>-0.34</b>	
Social Boldness (X)	<b>0.42*</b>	<b>0.18</b>	<b>0.29</b>	<b>0.46*</b>	<b>0.18</b>	<b>0.31</b>	
Sociability (X)	-0.05	0.16	-0.04	-0.08	0.17	-0.06	
Liveliness (X)	0.29	0.19	0.21	0.23	0.20	0.16	
R <sup>2</sup> /Δ R <sup>2</sup>			.15**/.14**	R <sup>2</sup> /Δ R <sup>2</sup>			.10**/.09**

Note.  $n = 150$ .

†:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

Table 28

*Facets of Agreeableness and Territorial Marking Regression Results*

Predictors	Identity-Oriented Marking			Control-Oriented Marking			
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$	
Step 1 - Controls							
Sex	0.04	0.07	0.04	-0.03	0.07	-0.04	
Age	-0.01 <sup>†</sup>	0.00	0.19	-0.01	0.00	-0.13	
Tenure - Job	0.01	0.01	0.20	0.01	0.01	0.22	
Tenure - Organization	0.00	0.01	0.01	-0.01	0.01	-0.13	
R <sup>2</sup>			.03	R <sup>2</sup>			.02
Step 2 - “A” Facets							
Sex	0.02	0.07	0.02	-0.05	0.07	-0.06	
Age	-0.01 <sup>†</sup>	0.00	-0.22	-0.01	0.00	-0.17	
Tenure - Job	0.01 <sup>†</sup>	0.01	0.27	<b>0.02*</b>	<b>0.01</b>	<b>0.35</b>	
Tenure - Organization	0.00	0.01	-0.05	<b>-0.02*</b>	<b>0.01</b>	<b>-0.26</b>	
Forgiveness (A)	0.03	0.14	0.02	<b>0.26*</b>	<b>0.13</b>	<b>0.19</b>	
Gentleness (A)	<b>0.67*</b>	<b>0.22</b>	<b>0.35</b>	<b>0.75**</b>	<b>0.21</b>	<b>0.38</b>	
Flexibility (A)	<b>-0.47*</b>	<b>0.19</b>	<b>-0.27</b>	<b>-0.77**</b>	<b>0.18</b>	<b>-0.44</b>	
Patience (A)	-0.17	0.17	-0.10	-0.28 <sup>†</sup>	0.16	-0.17	
R <sup>2</sup> /Δ R <sup>2</sup>			.11*/.08*	R <sup>2</sup> /Δ R <sup>2</sup>			.20**/.18**

Note.  $n = 150$ .

<sup>†</sup>:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

Table 29

*Facets of Agreeableness and Territorial Defending Regression Results*

Predictors	Anticipatory Defending			Reactionary Defending			
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$	
Step 1 - Controls							
Sex	-0.04	0.07	-0.04	-0.02	0.07	-0.03	
Age	-0.01	0.00	-0.14	0.00	0.00	-0.11	
Tenure - Job	0.01	0.01	0.10	0.01	0.01	0.10	
Tenure - Organization	0.00	0.01	-0.01	0.00	0.01	0.02	
$R^2$			.01	$R^2$			.01
Step 2 - “A” Facets							
Sex	-0.05	0.07	-0.05	-0.06	0.07	-0.07	
Age	-0.01	0.00	-0.18	0.00	0.00	-0.09	
Tenure - Job	0.01	0.01	0.19	0.01	0.01	0.11	
Tenure - Organization	-0.01	0.01	-0.09	0.00	0.01	-0.02	
Forgiveness (A)	0.13	0.13	0.10	-0.07	0.13	-0.05	
Gentleness (A)	<b>0.72**</b>	<b>0.22</b>	<b>0.37</b>	<b>0.56*</b>	<b>0.22</b>	<b>0.29</b>	
Flexibility (A)	<b>-0.49**</b>	<b>0.18</b>	<b>-0.29</b>	<b>-0.75**</b>	<b>0.18</b>	<b>-0.43</b>	
Patience (A)	-0.30 <sup>†</sup>	0.17	-0.18	-0.13	0.17	-0.08	
$R^2/\Delta R^2$			.13**/.11**	$R^2/\Delta R^2$			.15**/.14**

Note.  $n = 150$ .

<sup>†</sup>:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

Table 30  
*Facets of Conscientiousness and Territorial Marking Regression Results*

Predictors	Identity-Oriented Marking			Control-Oriented Marking			
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$	
Step 1 - Controls							
Sex	0.04	0.07	0.04	-0.03	0.07	-0.04	
Age	-0.01 <sup>†</sup>	0.00	0.19	-0.01	0.00	-0.13	
Tenure - Job	0.01	0.01	0.20	0.01	0.01	0.22	
Tenure - Organization	0.00	0.01	0.01	-0.01	0.01	-0.13	
R <sup>2</sup>			.03	R <sup>2</sup>			.02
Step 2 - “C” Facets							
Sex	0.04	0.07	0.05	-0.02	0.07	-0.02	
Age	-0.01	0.00	-0.15	0.00	0.00	-0.11	
Tenure - Job	0.01	0.01	0.20	0.01 <sup>†</sup>	0.01	0.25	
Tenure - Organization	0.00	0.01	0.00	-0.01	0.01	-0.15	
Organization (C)	0.20	0.19	0.11	0.10	0.19	0.06	
Diligence (C)	0.19	0.21	0.10	0.08	0.21	0.04	
Perfectionism (C)	0.18	0.26	0.08	-0.06	0.26	-0.02	
Prudence (C)	-0.61	0.23	-0.28	<b>-0.52*</b>	<b>0.24</b>	<b>-0.24</b>	
R <sup>2</sup> /Δ R <sup>2</sup>			.08 <sup>†</sup> /.05 <sup>†</sup>	R <sup>2</sup> /Δ R <sup>2</sup>			.06/.05

Note. *n* = 150.

<sup>†</sup>:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

Table 31

*Facets of Conscientiousness and Territorial Defending Regression Results*

Predictors	Anticipatory Defending			Reactionary Defending		
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$
Step 1 - Controls						
Sex	-0.04	0.07	-0.04	-0.02	0.07	-0.03
Age	-0.01	0.00	-0.14	0.00	0.00	-0.11
Tenure - Job	0.01	0.01	0.10	0.01	0.01	0.10
Tenure - Organization	0.00	0.01	-0.01	0.00	0.01	0.02
	R <sup>2</sup>		.01	R <sup>2</sup>		.01
Step 2 - “C” Facets						
Sex	-0.04	0.07	-0.04	-0.01	0.07	-0.02
Age	-0.01	0.00	-0.14	0.00	0.00	-0.11
Tenure - Job	0.01	0.01	0.15	0.01	0.01	0.12
Tenure - Organization	0.00	0.01	-0.04	0.00	0.01	-0.02
Organization (C)	-0.10	0.19	-0.06	0.13	0.19	0.08
Diligence (C)	0.20	0.21	0.11	0.28	0.21	0.15
Perfectionism (C)	-0.11	0.26	-0.05	-0.23	0.26	-0.10
Prudence (C)	-0.25	0.23	-0.11	<b>-0.55*</b>	<b>0.23</b>	<b>-0.25</b>
	R <sup>2</sup> /Δ R <sup>2</sup>		.03/.02	R <sup>2</sup> /Δ R <sup>2</sup>		.07†/.06†

Note.  $n = 150$ .

†:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

Table 32

*Facets of Openness to Experience and Territorial Marking Regression Results*

Predictors	Identity-Oriented Marking			Control-Oriented Marking		
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$
Step 1 - Controls						
Sex	0.04	0.07	0.04	-0.03	0.07	-0.04
Age	-0.01 <sup>†</sup>	0.00	0.19	-0.01	0.00	-0.13
Tenure - Job	0.01	0.01	0.20	0.01	0.01	0.22
Tenure - Organization	0.00	0.01	0.01	-0.01	0.01	-0.13
	R <sup>2</sup> .03			R <sup>2</sup> .02		
Step 2 - “O” Facets						
Sex	0.04	0.07	0.04	-0.03	0.07	-0.03
Age	<b>-0.01*</b>	<b>0.00</b>	<b>-0.27</b>	-0.01	0.00	-0.17
Tenure - Job	<b>0.02*</b>	<b>0.01</b>	<b>0.30</b>	<b>0.02*</b>	<b>0.01</b>	<b>0.28</b>
Tenure - Organization	0.00	0.01	-0.04	-0.01	0.01	-0.18
Aesthetic Appreciation (O)	0.11	0.20	0.06	-0.04	0.21	-0.02
Inquisitiveness (O)	-0.16	0.20	-0.09	-0.26	0.21	-0.13
Creativity (O)	<b>0.72**</b>	<b>0.19</b>	<b>0.43</b>	<b>0.68**</b>	<b>0.20</b>	<b>0.40</b>
Unconventionality (O)	-0.20	0.22	-0.10	-0.41 <sup>†</sup>	0.23	-0.19
	R <sup>2</sup> /Δ R <sup>2</sup> .16**/.14**			R <sup>2</sup> /Δ R <sup>2</sup> .10*/.08*		

Note.  $n = 150$ .

<sup>†</sup>:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$



Table 33

*Facets of Openness to Experience and Territorial Defending Regression Results*

Predictors	Anticipatory Defending			Reactionary Defending		
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$
Step 1 - Controls						
Sex	-0.04	0.07	-0.04	-0.02	0.07	-0.03
Age	-0.01	0.00	-0.14	0.00	0.00	-0.11
Tenure - Job	0.01	0.01	0.10	0.01	0.01	0.10
Tenure - Organization	0.00	0.01	-0.01	0.00	0.01	0.02
	R <sup>2</sup> .01			R <sup>2</sup> .01		
Step 2 - “O” Facets						
Sex	-0.03	0.07	-0.03	-0.01	0.07	-0.02
Age	-0.01	0.00	-0.18	-0.01	0.01	-0.14
Tenure - Job	0.01	0.01	0.15	0.01	0.01	0.14
Tenure - Organization	0.00	0.01	-0.04	0.00	0.01	-0.01
Aesthetic Appreciation (O)	-0.10	0.21	-0.06	-0.15	0.21	-0.08
Inquisitiveness (O)	-0.17	0.21	-0.09	-0.27	0.21	-0.14
Creativity (O)	<b>0.57**</b>	<b>0.20</b>	<b>0.34</b>	<b>0.55**</b>	<b>0.21</b>	<b>0.33</b>
Unconventionality (O)	-0.18	0.23	-0.09	0.02	0.23	0.01
	R <sup>2</sup> /Δ R <sup>2</sup> .07†/.06†			R <sup>2</sup> /Δ R <sup>2</sup> .07*/.06*		

Note.  $n = 150$ .

†:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

Table 34

*Comparison of Effects from Data Trimming and Cleaning in Identity-Oriented Marking*

Predictors	Untransformed data		Transformed data	
	Full	Trimmed	Full	Trimmed
	$\beta$	$\beta$	$\beta$	$\beta$
Sex	.03	.02	.07	.05
Age	.09	.07	-.16	-.17
Tenure - Job	.04	.03	.16	.16
Tenure - Organization	.06	.07	.06	.07
Honesty-Humility	<b>-.32**</b>	<b>-.33**</b>	-.21 <sup>†</sup>	-.21 <sup>†</sup>
Emotionality	<b>.28**</b>	<b>.27**</b>	<b>.26**</b>	<b>.26**</b>
Extraversion	.13	.12	.14	.13
Agreeableness	.04	.05	.05	.06
Conscientiousness	.04	.02	.05	.05
Openness to Experience	<b>.20*</b>	<b>.22*</b>	<b>.29**</b>	<b>.31**</b>
Altruism (Interstitial)	-.06	-.02	-.25 <sup>†</sup>	-.23 <sup>†</sup>
$R^2$	<b>.18**</b>	<b>.19**</b>	<b>.20**</b>	<b>.22**</b>

*Note.* Full  $n = 160$ . Trimmed  $n = 150$ . Standardized Beta weights only. Contact author for full results of comparisons across all dependent variables in the full and trimmed data sets in both transformed and raw form.

<sup>†</sup>:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

Table 35

*Comparison of Regression Models Using Different Methods for Identity-Oriented Marking*

Backwards Elimination			
Predictors	$\beta$ (SE)	Model Information	
Sincerity (H)	<b>-.25**</b> (.13)	R <sup>2</sup> (Adj. R <sup>2</sup> )	.27 (.24)
Anxiety (E)	<b>.24**</b> (.12)	F (df)	8.69 (6,143)
Social Boldness (X)	<b>.24*</b> (.15)	Sig	< .001
Gentleness (A)	<b>.26**</b> (.17)	Std. Error	.38
Patience (A)	<b>-.19*</b> (.16)	AIC	-280.78
Creativity (O)	<b>.29**</b> (.15)	Mallows CP	3.54
Forward Selection			
Predictors	$\beta$ (SE)	Model Information	
Creativity (O)	<b>.37**</b> (.13)	R <sup>2</sup> (Adj. R <sup>2</sup> )	.10 (.10)
Sincerity (H)	<b>-.28**</b> (.13)	F (df)	16.13 (2,147)
		Sig	< .001
		Std. Error	.40
		AIC	-271.90
		Mallows CP	12.16
<i>p</i> < .10 Selection			
Predictors	$\beta$ (SE)	Model Information	
Modesty (H)	-.15 (.16)	R <sup>2</sup> (Adj. R <sup>2</sup> )	.23 (.18)
Fear (E)	.09 (.15)	F (df)	4.21 (10,139)
Dependence (E)	.10 (.14)	Sig	< .001
Social Self-Esteem (X)	-.11 (.22)	Std. Error	.40
Social Boldness (X)	.13 (.16)	AIC	-265.83
Liveliness (X)	.03 (.18)	Mallows CP	11
Gentleness (A)	<b>.22*</b> (.19)		
Flexibility (A)	<b>-.21*</b> (.17)		
Creativity (O)	<b>.29**</b> (.16)		
Altruism	-.06 (.27)		

*Note.* n = 150. No control variables used. Step criteria: in = .05, out = .10. H = Honesty-Humility, E = Emotionality, X = Extraversion, A = Agreeableness, C = Conscientiousness, and O = Openness to Experience.

†: *p* < .1

\*: *p* < .05

\*\*: *p* < .01

Table 36

*Comparison of Regression Models Using Different Methods for Control-Oriented Marking*

Backwards Elimination			
Predictors	$\beta$ (SE)	Model Information	
Modesty (H)	-.36** (.12)	R <sup>2</sup> (Adj. R <sup>2</sup> )	.36 (.30)
Social Self-Esteem (X)	-.30** (.14)	F (df)	10.23 (7,142)
Gentleness (A)	.31** (.17)	Sig	< .001
Flexibility (A)	-.26** (.16)	Std. Error	.37
Organization (C)	.17* (.15)	AIC	-290.10
Creativity (O)	.29** (.16)	Mallows CP	4.64
Unconventionality (O)	-.19* (.19)		
Forward Selection			
Predictors	$\beta$ (SE)	Model Information	
Modesty (H)	-.36** (.12)	R <sup>2</sup> (Adj. R <sup>2</sup> )	.34 (.30)
Gentleness (A)	.30** (.17)	F (df)	10.23 (7,142)
Flexibility (A)	-.26** (.16)	Sig	< .001
Social Self-Esteem (X)	-.30** (.14)	Std. Error	.37
Creativity (O)	.29** (.16)	AIC	-290.10
Organization (C)	.17* (.15)	Mallows CP	4.64
Unconventionality (O)	-.19* (.19)		
$p < .10$ Selection			
Predictors	$\beta$ (SE)	Model Information	
Modesty (H)	-.33** (.16)	R <sup>2</sup> (Adj. R <sup>2</sup> )	.36 (.29)
Fear (E)	-.05 (.15)	F (df)	4.80 (16,133)
Anxiety (E)	.21† (.16)	Sig	< .001
Dependence (E)	.04 (.15)	Std. Error	.37
Sentimentality (E)	-.10 (.24)	AIC	-279.24
Social Self-Esteem (X)	-.32* (.22)	Mallows CP	17
Social Boldness (X)	.19 (.16)		
Liveliness (X)	.17 (.16)		
Forgiveness (A)	-.01 (.14)		
Gentleness (A)	.37** (.21)		
Flexibility (A)	-.17† (.18)		
Patience (A)	-.17† (.17)		
Prudence (C)	.12 (.20)		
Creativity (O)	.18† (.18)		
Unconventionality (O)	-.15 (.21)		
Altruism	.01 (.30)		

Note. n = 150. No control variables used. Step criteria: in = .05, out = .10. H = Honesty-Humility, E = Emotionality, X = Extraversion, A = Agreeableness, C = Conscientiousness, and O = Openness to Experience.

†:  $p < .1$

\*:  $p < .05$

\*\*:  $p < .01$

Table 37

*Comparison of Regression Models Using Different Methods for Anticipatory Defending*

Backwards Elimination			
Predictors	$\beta$ (SE)	Model Information	
Sincerity (H)	<b>.20*</b> (.16)	R <sup>2</sup> (Adj. R <sup>2</sup> )	.34 (.30)
Modesty (H)	<b>-.43**</b> (.15)	F (df)	9.09 (8,141)
Anxiety (E)	<b>.22*</b> (.12)	Sig	< .001
Social Self-Esteem (X)	<b>-.42**</b> (.16)	Std. Error	.36
Social Boldness (X)	<b>.35**</b> (.13)	AIC	-295.43
Gentleness (A)	<b>.35**</b> (.16)	Mallows CP	9.4
Patience (A)	-.17 <sup>†</sup> (.15)		
Organization (C)	.16 <sup>†</sup> (.15)		
Forward Selection			
Predictors	$\beta$ (SE)	Model Information	
Modesty (H)	<b>-.37**</b> (.13)	R <sup>2</sup> (Adj. R <sup>2</sup> )	.32 (.29)
Gentleness (A)	<b>.36**</b> (.16)	F (df)	9.61 (7,142)
Social Self-Esteem (X)	<b>-.41**</b> (.15)	Sig	< .001
Creativity (O)	.16 <sup>†</sup> (.14)	Std. Error	.37
Patience (A)	<b>-.24*</b> (.15)	AIC	-293.20
Prudence (C)	<b>.20*</b> (.18)	Mallows CP	11.45
Social Boldness (X)	<b>.20*</b> (.14)		
<i>p</i> < .10 Selection			
Predictors	$\beta$ (SE)	Model Information	
Sincerity (H)	<b>.27*</b> (.18)	R <sup>2</sup> (Adj. R <sup>2</sup> )	.36 (.29)
Greed Avoidance (H)	-.11 (.14)	F (df)	5.38 (14,135)
Modesty (H)	<b>-.29*</b> (.16)	Sig	< .001
Fear (E)	-.06 (.15)	Std. Error	.37
Anxiety (E)	<b>.22*</b> (.15)	AIC	-287.53
Dependence (E)	.15 <sup>†</sup> (.14)	Mallows CP	15
Sentimentality (E)	-.13 (.23)		
Social Self-Esteem (X)	<b>-.28**</b> (.16)		
Social Boldness (X)	<b>.28*</b> (.16)		
Gentleness (A)	<b>.36**</b> (.18)		
Flexibility (A)	-.09 (.18)		
Patience (A)	-.18 <sup>†</sup> (.16)		
Creativity (O)	.05 (.15)		
Altruism	-.02 (.29)		

*Note.* n = 150. No control variables used. Step criteria: in = .05, out = .10. H = Honesty-Humility, E = Emotionality, X = Extraversion, A = Agreeableness, C = Conscientiousness, and O = Openness to Experience.

<sup>†</sup>: *p* < .1

\*: *p* < .05

\*\*: *p* < .01

Table 38

*Comparison of Regression Models Using Different Methods for Reactionary Defending*

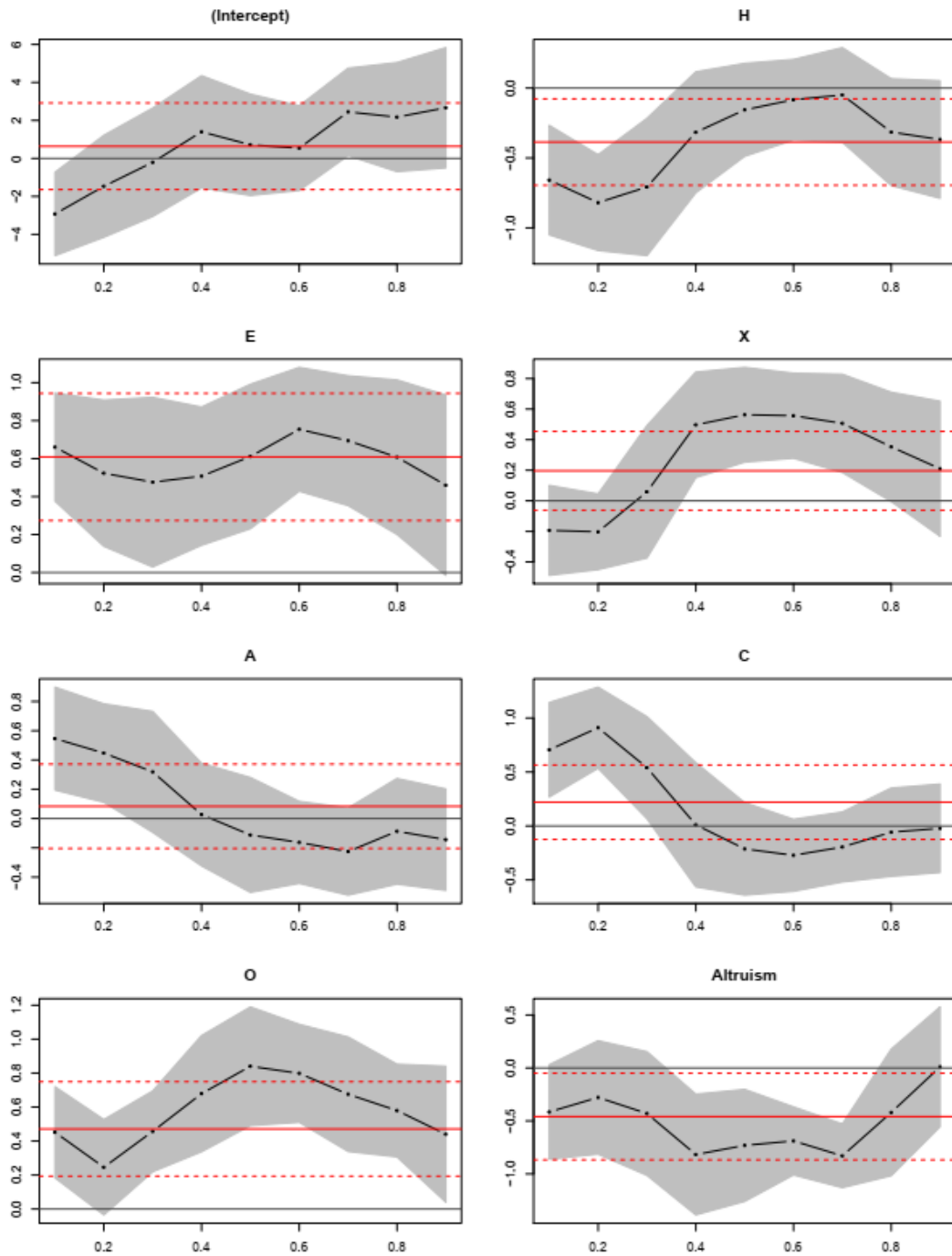
Backwards Elimination			
Predictors	$\beta$ (SE)	Model Information	
Fairness (H)	.16 <sup>†</sup> (.15)	R <sup>2</sup> (Adj. R <sup>2</sup> )	.35 (.30)
Modesty (H)	<b>-.37**</b> (.14)	F (df)	7.51 (10,139)
Social Self-Esteem (X)	<b>-.28**</b> (.17)	Sig	< .001
Social Boldness (X)	<b>.20*</b> (.15)	Std. Error	.37
Forgiveness (A)	<b>-.27**</b> (.13)	AIC	-289.77
Gentleness (A)	<b>.26**</b> (.19)	Mallows CP	3.84
Flexibility (A)	<b>-.24*</b> (.16)		
Organization (C)	<b>.19*</b> (.16)		
Perfectionism (C)	<b>-.20*</b> (.21)		
Creativity (O)	<b>.20*</b> (.15)		
Forward Selection			
Predictors	$\beta$ (SE)	Model Information	
Modesty (H)	<b>-.35**</b> (.12)	R <sup>2</sup> (Adj. R <sup>2</sup> )	.25 (.23)
Flexibility (A)	<b>-.21**</b> (.14)	F (df)	16.05 (3,146)
Creativity (O)	<b>.18*</b> (.12)	Sig	< .001
		Std. Error	.39
		AIC	-280.71
		Mallows CP	10.73
<i>p</i> < .10 Selection			
Predictors	$\beta$ (SE)	Model Information	
Modesty (H)	<b>-.26*</b> (.16)	R <sup>2</sup> (Adj. R <sup>2</sup> )	.29 (.25)
Fear (E)	.05 (.15)	F (df)	5.65 (10,139)
Dependence (E)	.08 (.14)	Sig	< .001
Social Self-Esteem (X)	-.09 (.17)	Std. Error	.39
Social Boldness (X)	.12 (.15)	AIC	-275.091
Gentleness (A)	<b>.19*</b> (.18)	Mallows CP	11
Flexibility (A)	<b>-.31**</b> (.17)		
Prudence (C)	.06 (.20)		
Creativity (O)	.17 <sup>†</sup> (.15)		
Altruism	-.13 (.26)		

*Note.* n = 150. No control variables used. Step criteria: in = .05, out = .10. H = Honesty-Humility, E = Emotionality, X = Extraversion, A = Agreeableness, C = Conscientiousness, and O = Openness to Experience.

†: *p* < .1

\*: *p* < .05

\*\*: *p* < .01



*Figure 6.* Results from quantile regression analysis in identity-oriented marking. Conditional quantile are marked on the x-axis and the increase/decrease of the units of the dependent variable are on the y-axis. OLS regression coefficient corresponds to the solid red line, with the dashed red lines representing the 95% confidence intervals. The dotted black line corresponds to the regression coefficient at each conditional quantile with the grey area representing the 95% confidence interval for each conditional quantile. The solid black line represents the zero (0) line for units of the dependent variable.

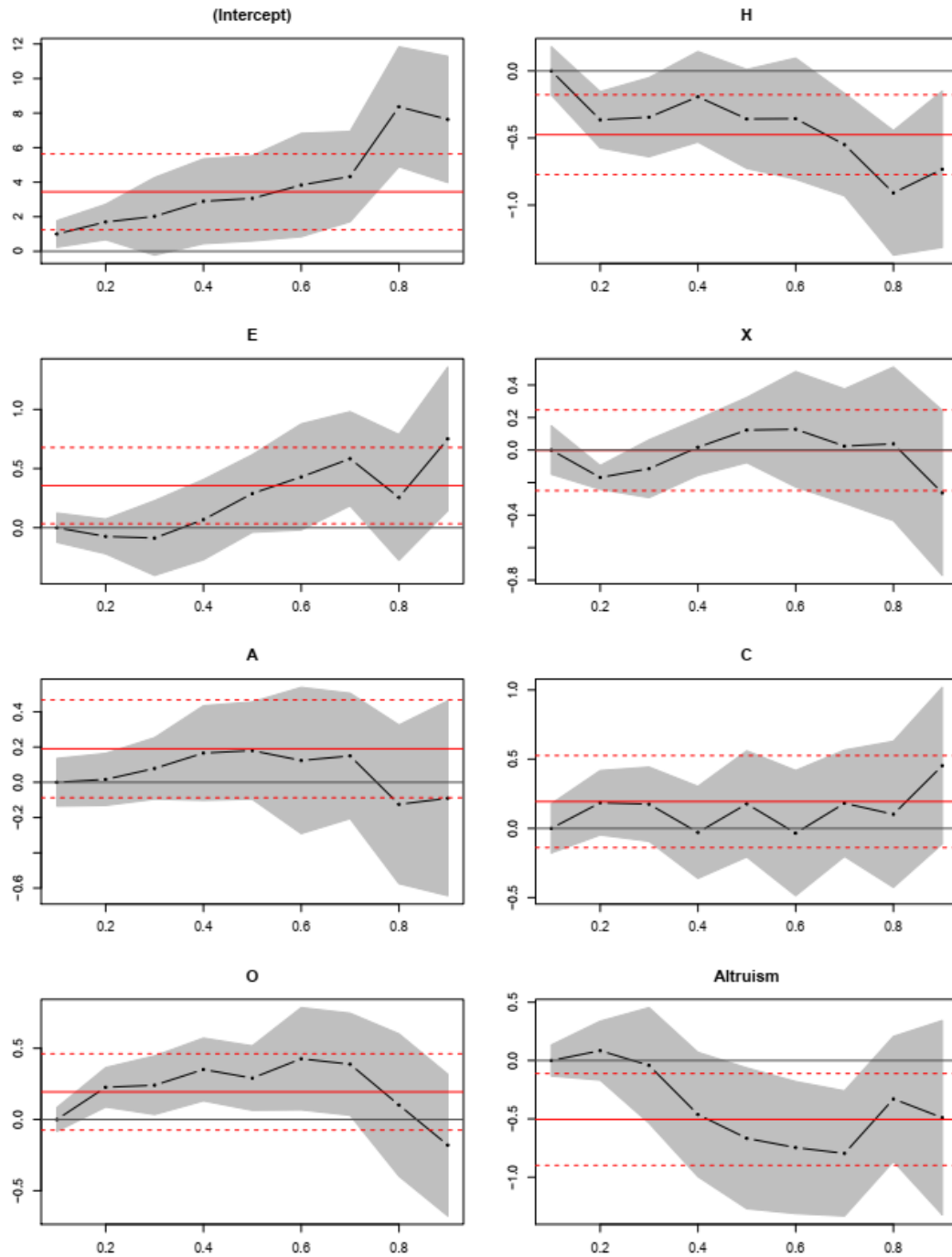
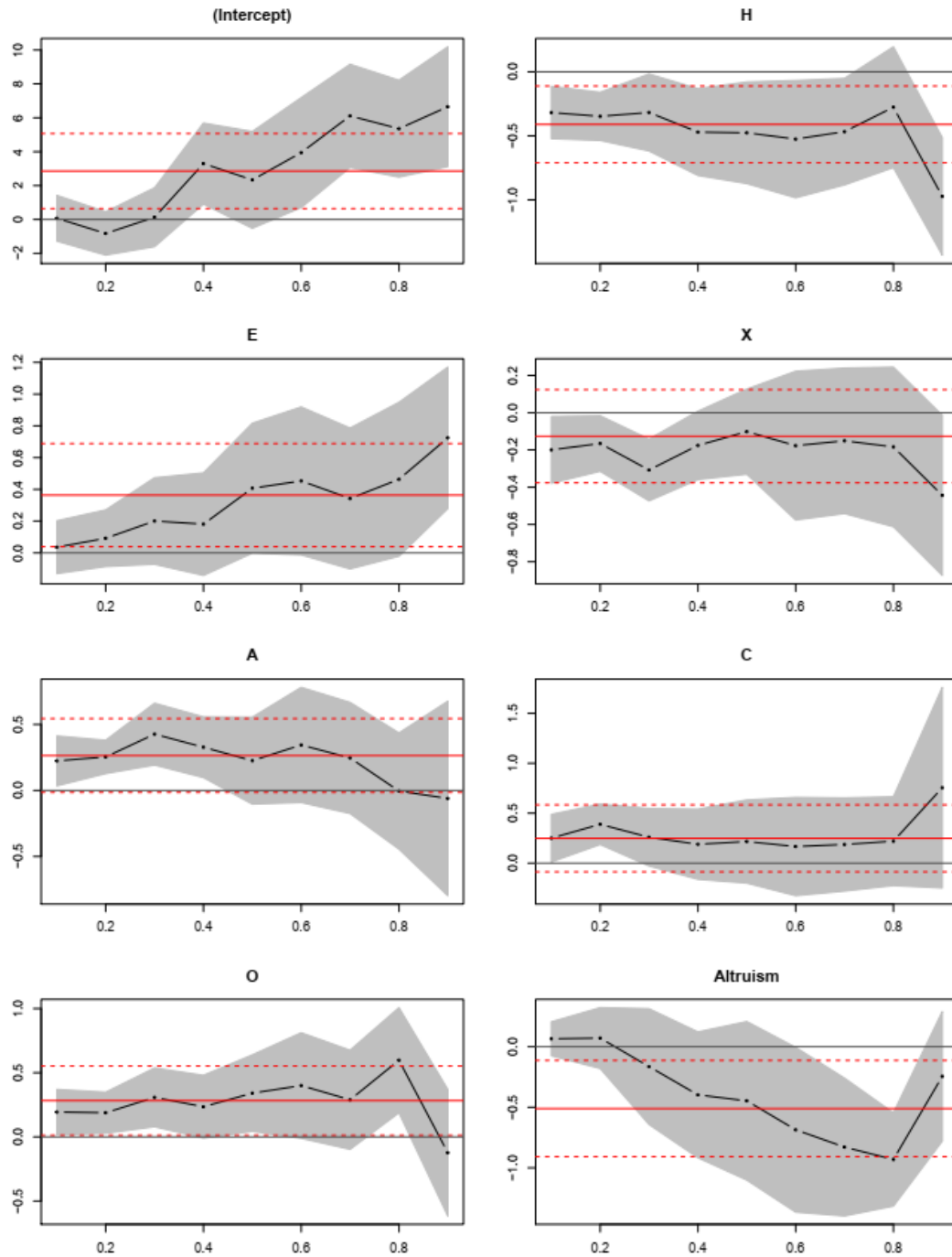
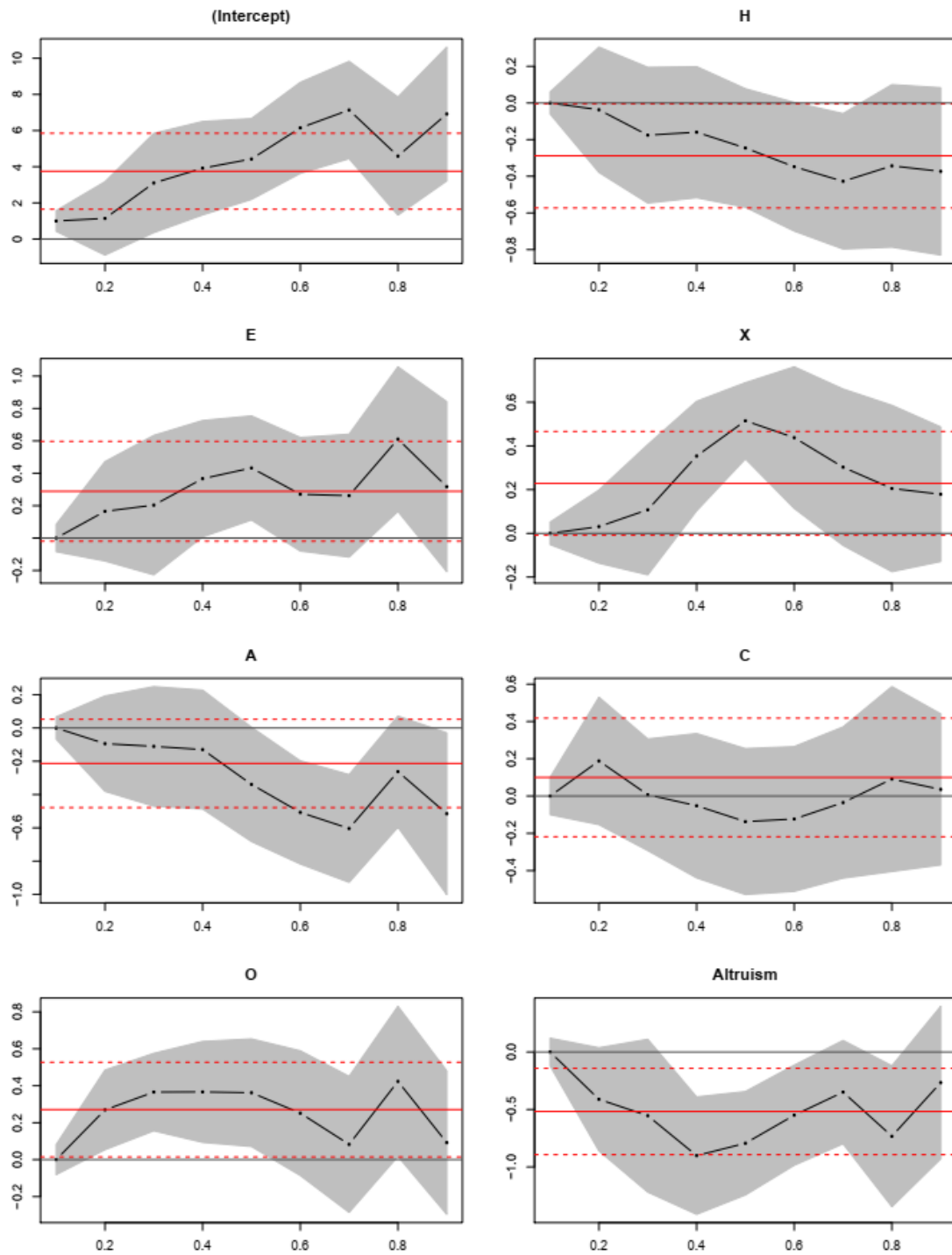


Figure 7. Results from quantile regression analysis in control-oriented marking. Conditional quantile are marked on the x-axis and the increase/decrease of the units of the dependent variable are on the y-axis. OLS regression coefficient corresponds to the solid red line, with the dashed red lines representing the 95% confidence intervals. The dotted black line corresponds to the regression coefficient at each conditional quantile with the grey area representing the 95% confidence interval for each conditional quantile. The solid black line represents the zero (0) line for units of the dependent variable.





*Figure 8.* Results from quantile regression analysis in anticipatory defending. Conditional quantile are marked on the x-axis and the increase/decrease of the units of the dependent variable are on the y-axis. OLS regression coefficient corresponds to the solid red line, with the dashed red lines representing the 95% confidence intervals. The dotted black line corresponds to the regression coefficient at each conditional quantile with the grey area representing the 95% confidence interval for each conditional quantile. The solid black line represents the zero (0) line for units of the dependent variable.



*Figure 9.* Results from quantile regression analysis in reactionary defending. Conditional quantile are marked on the x-axis and the increase/decrease of the units of the dependent variable are on the y-axis. OLS regression coefficient corresponds to the solid red line, with the dashed red lines representing the 95% confidence intervals. The dotted black line corresponds to the regression coefficient at each conditional quantile with the grey area representing the 95% confidence interval for each conditional quantile. The solid black line represents the zero (0) line for units of the dependent variable.

## **APPENDIX B: MEASURES**

## **Territoriality**

**Instructions:** Please indicate to what extent have you engaged in the following behaviors in the past year with your workspace or an object at work that you feel belongs to you.

An object can be any work item you feel a particular attachment to, ownership over, responsibility for, or possessiveness about. Examples of “objects” can be: physical objects (ex: work tools), spaces (ex: your workspace), work products or projects, a job or role, ideas or knowledge, files or documents, or work-oriented relationships.

**Response choices:** 1= not at all; 3 = to a small extent; 5= to a large extent; 7 = as much as possible.

### **Identity-oriented marking.**

Brought in personally meaningful photographs

Displayed artwork in my workspace

Brought in work-related items (coffee mug, books)

Decorated the ~~space~~ “object” the way I wanted

Put things in the ~~workspace~~ or around the “object” that represent my personal hobbies and interests

Brought in items or changed the ~~workspace~~ “object” to make me feel at home

### **Control-oriented marking.**

Created a border around my ~~workspace~~ “object.”

Told people about the boundaries of the workspace the “object.”

Wrote my name all over the workspace “object.”

Used signs to communicate that the workspace “object” has been claimed

Told people the workspace “object” is mine

**Anticipatory defending.**

Delayed allowing others to use my workspace “object” until it is clear to everyone that it is mine

Enlisted support of others to protect my space “object” when I am not there

Developed formal rules to protect workspace the “object.”

Avoid leaving my workspace “object” unattended

Had authorities in the organization identify the workspace “object” as mine

Used locks and or passwords so others cannot access my workspace “object.”

**Reactionary defending.**

**Instructions:** Please indicate to what extent have you engaged in the following behaviors in the past year when someone has infringed on a work object that belongs to you. If you have not experienced an infringement, please indicate what you *would do* if someone infringed on your work object.

An object can be any work item you feel a particular attachment to, ownership over, responsibility for, or possessiveness about. Examples of “objects” can be: physical objects (ex:

work tools), spaces (ex: your workspace), work products or projects, a job or role, ideas or knowledge, files or documents, or work-oriented relationships.

An infringement is a feeling that another person(s) has attempted, without permission or entitlement, to claim, take, or use an object that belongs to you or your work group.

**Response choices:** 1= not at all; 3 = to a small extent; 5= to a large extent; 7 = as much as possible.

Used facial expressions to express disagreement or dislike towards the infringer

Avoided working with or interacting with the infringer in the future

Explained to the infringer that the ~~workspace~~ “object” was already claimed

Devised a strategy to get back your ~~workspace~~ “object” from the infringer

Displayed hostility towards the infringer <sup>1</sup>

Complained to your supervisor about the infringement

Asked the person why they infringed <sup>2</sup>

Verbally challenged the infringer <sup>2</sup>

Involved coworkers to help reclaim the ~~territory~~ “object” <sup>2</sup>

Physically confronted the infringer <sup>2</sup>

*Note.* <sup>1</sup> omitted due to similarity to other items. <sup>2</sup> taken from Brown and Robinson 2011

## HEXACO-PI-R

**Instructions:** The following questions will contain a series of statements. Please read each statement and decide how much you agree or disagree with that statement. Then select your response using the following scale: 1 = strongly disagree

2 = disagree

3 = somewhat disagree

4 = neutral (neither agree nor disagree)

5 = somewhat agree

6 = agree

7 = strongly agree

### **Honesty-Humility**

#### *Sincerity.*

If I want something from a person I dislike, I will act very nicely toward that person in order to get it. (R)

I don't see anything wrong with using flattery to get ahead in life. (R)

I sometimes try to make people feel guilty so that they will do what I want. (R)

I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succeed.

If I want something from someone, I will laugh at that person's worst jokes. (R)

I wouldn't pretend to like someone just to get that person to do favors for me.

If I want something from someone, I ask for it directly, instead of manipulating them into giving it.

I often get people to do favors for me by making them feel that they owe me. (R)

***Fairness.***

If I knew that I could never get caught, I would be willing to steal a million dollars. (R)

I wouldn't cheat a person even if he or she was a real "sucker".

I wouldn't feel bad about deceiving people who allow themselves to be deceived. (R)

I would be tempted to buy stolen property if I were financially tight. (R)

I would still pay my taxes even if I would not get caught for avoiding them.

I would never accept a bribe, even if it were very large.

I would like to know how to smuggle things across the border. (R)

I'd be tempted to use counterfeit money, if I were sure I could get away with it. (R)

***Greed-avoidance.***

Having a high level of social status is not very important to me.

Having a lot of money is not especially important to me.

I prefer to have high-status, successful people as my friends. (R)



I would like to live in a very expensive, high-class neighborhood. (R)

I would like to be seen driving around in a very expensive car. (R)

I would enjoy being a member of a fancy, high-class casino. (R)

I would get a lot of pleasure from owning expensive luxury goods. (R)

If there is some chance of improving my social status, I take big risks. (R)

***Modesty.***

I deserve more influence and authority than most other people do. (R)

I am an ordinary person who is no better than others.

I wouldn't want people to treat me as though I were superior to them.

I am special and superior in many ways. (R)

Sometimes I feel that laws should not apply to someone like me. (R)

I think that I am entitled to more respect than the average person is. (R)

Some people would say that I have an over-inflated ego. (R)

I want people to know that I am an important person of high status. (R)

**Emotionality**

***Fearfulness.***

I would feel afraid if I had to travel in bad weather conditions.

Where physical pain is involved, I'm a very tough person. (R)

It doesn't bother me to get some bumps and bruises. (R)

I don't mind doing jobs that involve dangerous work. (R)

People say that I am a fearless person. (R)

I would avoid any sport that involves a high risk of physical injury.

When it comes to physical danger, I am very fearful.

Even in an emergency I wouldn't feel like panicking. (R)

***Anxiety.***

I sometimes can't help worrying about little things.

I often find myself lying awake in bed and worrying about something.

If I were a parent, I would probably tend to worry a lot about my children.

I worry a lot less than most people do. (R)

Sometimes I feel nervous without really knowing why.

I rarely, if ever, have trouble sleeping due to stress or anxiety. (R)

I tend to remain calm even when other people get stressed out. (R)

I get very anxious when waiting to hear about an important decision.

***Dependence.***

I rely a great deal on other people when I feel depressed.

Without the emotional support of other people, I sometimes feel helpless.

When I suffer from a painful experience, I need someone to make me feel comfortable.

I can "tough it out" on my own through any kind of personal hardship. (R)

When I have a problem, I like to get advice from others.

I can handle difficult situations without needing emotional support from anyone else. (R)

Whenever I feel worried about something, I want to share my concern with another person.

I rarely discuss my problems with other people. (R)

***Sentimentality.***

I feel like crying when I see other people crying.

When someone I know well is unhappy, I can almost feel that person's pain myself.

I feel strong emotions when someone close to me is going away for a long time.

I don't understand why some people get so emotional at weddings. (R)

When someone close to me is concerned about something, I feel concerned too.

People sometimes say that I am not sensitive to others' feelings. (R)

I remain unemotional even in situations where most people get very sentimental. (R)

I sometimes get quite sentimental when thinking about people and places I used to know.

### **Extraversion**

#### ***Social Self-Esteem.***

I feel reasonably satisfied with myself overall.

I feel that I have some likable qualities.

I think that most people like some aspects of my personality.

I think that most people prefer not to talk to me (R)

I feel that I am an unpopular person. (R)

I think that most people dislike me. (R)

I sometimes think that I am pretty useless. (R)

I sometimes feel that I am a worthless person. (R)

#### ***Social Boldness.***

I feel comfortable when introducing myself to strangers.

I rarely express my opinions in group meetings. (R)

In social situations, I'm usually the one who makes the first move.

When I'm in a group of people, I'm often the one who speaks on behalf of the group.

In a large group discussion, I would only make comments if someone asked me directly.

(R)

I can handle embarrassing social situations better than most people can.

I feel confident when leading a group of people.

I tend to feel quite self-conscious when speaking in front of a group of people. (R)

***Sociability.***

I enjoy chatting with people, even when there's nothing important to discuss.

I avoid making "small talk" with people. (R)

I enjoy having lots of people around to talk with.

When travelling, I prefer to sit by myself rather than with other people. (R)

I prefer jobs that involve active social interaction to those that involve working alone.

The first thing that I always do in a new place is to make friends.

I don't especially enjoy going to parties. (R)

I enjoy flirting.

***Liveliness.***

I tend to have less energy than most other people do. (R)

I am energetic nearly all the time.

On most days, I feel cheerful and optimistic.

People often tell me that I should try to cheer up. (R)

People have described me as a very lively or spirited person.

I tend to look on the bright side of a situation more than other people do.

Most people are more upbeat and dynamic than I generally am. (R)

I rarely feel much enthusiasm about things. (R)

**Agreeableness**

***Forgiveness.***

I rarely hold a grudge, even against people who have badly wronged me.

If someone who has been unkind to me starts being nice, I remain suspicious of that person for a long time. (R)

My attitude toward people who have treated me badly is "forgive and forget".

I can forgive things that would cause most people to remain bitter for a long time.

I can still be friends with someone who has treated me badly in the past.

I can get along with someone even if that person has betrayed my trust.

If someone has cheated me once, I will always feel suspicious of that person. (R)

I find it hard to fully forgive someone who has done something mean to me. (R)

***Gentleness.***

I rarely, if ever, make critical remarks about others.

I am a gentle and mild person.

People sometimes say that I'm a person who "wouldn't hurt a fly".

People sometimes tell me that I am too critical of others. (R)

I generally accept people's faults without complaining about them.

I tend to be lenient in judging other people.

Even when people make a lot of mistakes, I rarely say anything negative.

I tend to be judgmental of people who do stupid things. (R)

***Flexibility.***

People sometimes tell me that I'm too stubborn. (R)

I often cooperate with other people even when I don't really agree with them.

Some people have complained that I always want to have things my own way. (R)

When I know what I want, I won't agree to anything less. (R)

I am usually quite flexible in my opinions when people disagree with me.

I can get a bit defensive when people try to change my mind about an issue. (R)

When people tell me that I'm wrong, my first reaction is to argue with them. (R)

I find it hard to compromise with people when I really think I'm right. (R)

***Patience.***

It doesn't take much to make me angry. (R)

People think of me as someone who has a quick temper. (R)

I rarely feel anger, even when people treat me quite badly.

Most people tend to get angry more quickly than I do.

Some people say that they have never seen me angry.

I find it hard to keep my temper when people insult me. (R)

I react very angrily if I find that someone is trying to cheat me. (R)

People can approach me without having to worry about the mood I'm in.



## **Conscientiousness**

### ***Organization.***

I like to keep all my belongings stored in their proper place.

I clean my office or home quite frequently.

I plan ahead and organize things, to avoid scrambling at the last minute.

I could let my room get very messy before I would clean it. (R)

When I am finished using an object, I put it back in its place right away.

People often joke with me about the messiness of my room or desk. (R)

I am not good at getting my files or desk drawers organized. (R)

When working, I sometimes have difficulties due to being disorganized. (R)

### ***Diligence.***

When working, I often set ambitious goals for myself.

I often push myself very hard when trying to achieve a goal.

I often achieve things by trying harder than other people do.

People sometimes call me a "workaholic".

Often when I set a goal, I end up quitting without having reached it. (R)

I do only the minimum amount of work needed to get by. (R)

I tend to give up on a task if it seems very difficult. (R)

I tend to procrastinate a lot before really getting to work on a project. (R)

***Perfectionism.***

I often check my work over repeatedly to find any mistakes.

When working on something, I don't pay much attention to small details. (R)

I always try to be accurate in my work, even at the expense of time.

People often call me a perfectionist.

I don't like to spend time perfecting work that is already good enough. (R)

I don't mind if my writing has some errors in spelling or punctuation. (R)

When calculating numbers, I check carefully to make sure there are no mistakes.

Even when writing a personal letter, I read it over to make sure there are no errors.

***Prudence.***

People say that I am good at controlling my impulses.

I make decisions based on the feeling of the moment rather than on careful thought. (R)

I make a lot of mistakes because I don't think before I act. (R)

I don't allow my impulses to govern my behavior.

I think carefully before doing anything that might be unsafe or unhealthy.

I usually stop myself before doing anything that I might later regret.

Sometimes I do things on impulse that turn out later to be unwise. (R)

I prefer to do whatever comes to mind, rather than stick to a plan. (R)

### **Openness to Experience**

#### ***Aesthetic appreciation.***

I would be quite bored by a visit to an art gallery. (R)

I tend to appreciate the beauty of nature more than most people do.

I wouldn't spend my time reading a book of poetry. (R)

If I had the opportunity, I would like to attend a classical music concert.

I don't really enjoy looking at sculptures. (R)

Attending a play is not something that I would enjoy. (R)

Sometimes I like to just watch the wind as it blows through the trees.

I can spend a long time studying a painting that I like.

#### ***Inquisitiveness.***

I'm interested in learning about the history and politics of other countries.

I find TV nature programs to be very boring. (R)

I enjoy looking at maps of different places.

I know the capital cities of many countries.

I would like to visit the ruins of ancient civilizations.

I would be very bored by a book about the history of science and technology. (R)

I like to keep up with news about scientific discoveries.

I've never really enjoyed looking through an encyclopedia. (R)

***Creativity.***

I prefer doing things the way I've always done them, rather than waste time looking for a new way. (R)

I would like a job that requires following a routine rather than being creative. (R)

I think I could develop some good ideas for television commercials.

I would like the job of drawing a comic strip or an editorial cartoon.

I have often solved problems by using new ideas that other people had not imagined.

I would enjoy creating a work of art, such as a novel, a song, or a painting.

People have often told me that I have a good imagination.

I don't think of myself as the artistic or creative type. (R)

***Unconventionality.***

I like hearing about opinions that are very different from those of most people.

I think that paying attention to radical ideas is a waste of time. (R)

People sometimes describe me as unconventional.

I would avoid hanging around with people who have unusual opinions. (R)

I like people who have unconventional views.

I think of myself as a somewhat eccentric person.

Most people would consider some of my beliefs to be quite strange.

I find it boring to discuss philosophy. (R)

**Interstitial Scale**

***Altruism.***

I am a soft-hearted person.

I would feel very badly if I were to hurt someone.

I have sympathy for people who are less fortunate than I am.

I try to give generously to those in need.

I try to respect other people's feelings.

I like the idea that only the strong should survive. (R)

It wouldn't bother me to harm someone I didn't like. (R)

People see me as a hard-hearted person. (R)

### **Attention Checks**

Please select "Disagree" for this question.

Please select "Agree" for this question.

Please select "Somewhat disagree" for this question.

Please select "Somewhat agree" for this question.

*Note.* (R) = reverse coded item. Attention checks were randomly distributed within the HEXACO portion of the survey.

## **APPENDIX C: INFORMED CONSENT**



UNIVERSITY OF  
CENTRAL FLORIDA

## EXPLANATION OF RESEARCH

Thank you for agreeing to participate in our research. Before you begin, please note that the data you provide may be collected and used by Amazon as per its privacy agreement. This agreement shall be interpreted according to United States law.

Title of Project: Predictors of Territorial Work Behavior: An Investigation of Individual Differences in Personality Using the HEXACO Model.

Principal Investigator: Andrew White

Faculty Supervisor: Dr. Steve Jex

You are being invited to take part in a research study. Whether you take part is up to you.

The purpose of this research is to investigate the predictive quality of dimension-level and facet-level personality traits in territorial work behavior.

Participants will be recruited through the Amazon Mechanical Turk (MTurk) service. Inclusion criteria will be over the age of 18, working 30 or more hours per week, and possess a 97% approval rating on the MTurk service. Participants will be administered a survey containing measures of job-based and organization-based psychological ownership, measures of territorial work behavior, and the 200-item version of the HEXACO personality inventory-revised.

The survey is a one-time administration and is expected to take approximately 20 minutes. Participants who pass the data quality checks will receive \$2.50 compensation for their participation.

You must be 18 years of age or older to take part in this research study.

**Study contact for questions about the study or to report a problem:** If you have questions, concerns, or complaints Andrew White, Graduate Student, Master's in Industrial-Organizational Psychology, College of Psychology by email at [andrewwhite@knights.ucf.edu](mailto:andrewwhite@knights.ucf.edu) or Dr. Steve Jex, Faculty Supervisor, Department of Psychology by email at [Steve.Jex@ucf.edu](mailto:Steve.Jex@ucf.edu).

**IRB contact about your rights in this study or to report a complaint:** If you have questions about your rights as a research participant, or have concerns about the conduct of this study, please contact Institutional Review Board (IRB), University of Central Florida, Office of Research, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901, or email [irb@ucf.edu](mailto:irb@ucf.edu).



## **APPENDIX D: IRB HUMAN SUBJECTS EXEMPTION**



UNIVERSITY OF CENTRAL FLORIDA

**Institutional Review Board**

FWA00000351

IRB00001138

Office of Research

12201 Research Parkway

Orlando, FL 32826-3246

**EXEMPTION DETERMINATION**

January 31, 2019

Dear Andrew White:

On 1/31/2019, the IRB determined the following submission to be human subjects research that is exempt from regulation:

Type of Review:	Initial Study, Category 2(ii)
Title:	Predictors of Territorial Work Behavior: An Investigation of Individual Differences in Personality Using the HEXACO Model.
Investigator:	Andrew White
IRB ID:	STUDY00000085
Funding:	None
Grant ID:	None

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-823-2901 or [irb@ucf.edu](mailto:irb@ucf.edu). Please include your project title and IRB number in all correspondence with this office.

Sincerely,

Renea Carver  
Designated Reviewer

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