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When Deception Gets Personal: An Exploration into Personality's Link to Deception

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Departmental Honors Thesis

The University of Tennessee at Chattanooga

Psychology

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#### Abstract

Most of our understanding of deceptive behaviors comes from cognitive (Vrij, Fisher, & Blank, 2015) or social psychological (Ekman, 2009) perspectives, and furthermore comes from forensic deception detection research and strategies (Vrij, 2008). One psychological domain that has not had as much investigation in relation to deception is personality. The present study examines the connection between personality traits and one aspect of deceptive behaviors – motivations to lie. College students completed self-report surveys online regarding personality, their lying habits, and basic demographic questions. Additionally, participants read several lying scenarios and rated the likelihood of lying. In a sample of 292 participants, several connections were observed between lying motives and Big Five traits, facet level traits, and dark personality traits. In sum, there were significant and differentiating connections between motivations for lying and personality characteristics; however, it is best to focus on patterns of relationships due to the exploratory nature of the study.

When Deception Gets Personal: An Exploration into Personality's Link to Deception People tell lies every day (Turner, Edgley, & Olmstead, 1975) and in fact, the world might fall apart if lying was suddenly removed from modern interactions. Despite the ubiquity of lying, there remains much confusion about understanding why an individual may choose to lie to others (Vrij, 2014). A general misunderstanding of lying and deceptive behaviors in everyday life can lead to detriments in a variety of important domains, such as business (Burgoon et al., 2015), romantic relationships (Roggensack & Sillars, 2014), and the criminal justice system (Colwell, Miller, Miller, & Lyons, 2006). Most of our understanding of deceptive behaviors come from cognitive (Vrij, Fisher, & Blank, 2015) or social psychological (Ekman, 2009) perspectives, and furthermore come from forensic deception detection research and strategies (Vrij, 2008). One psychological domain that has not had as much investigation in relation to deception is personality psychology. Given that personality differences are related to a variety of interpersonal behaviors (e.g., Cuperman & Ickes, 2009) and life outcomes (e.g., Roberts, Kuncel, Shiner, Caspi, & Goldberg, 2007) it is probable that there is a connection with lying, specifically the types of lies told. The present study examines the connection between personality traits and one aspect of deceptive behaviors – motivations to lie.

### **Motivations to Lie**

There are many different reasons why people tell lies to others, and it is found continuously that people have diverse and complex reasoning for choosing when and why to tell lies. We commonly think of lying only as actively deceiving someone by providing them with false information (i.e., lies of commission). However, there are other ways to intentionally deceive someone else such as lies of omission (Peterson, 1996), where the deceiver intentionally leaves out information to misinform, or distorting the truth where the deceiver contradicts or

exaggerates relevant information in order to misinform (Metts, 1989). For this research, the main focus will be on lies of commission where the deceiver has to actively and consciously choose to lie to the other person.

There are instances where one could lie to benefit themselves and cause harm to someone else, where one could lie cause no harm, or help the person being lied to (Goffman, 1974).

Naturally, one would imagine that people would lie more to benefit themselves rather than lying to benefit others, and research confirms this notion (DePaulo, Kashy, Kirkendol, Wyer, & Epstien, 1996). There is also evidence that more self-serving lies are told to strangers than close friends (Ennis, Vrij, & Chance, 2008), and that individuals told more altruistic and other-oriented lies to close friends (DePaulo & Kashy, 1998). This suggests that people are making conscious decisions on when to lie versus when not to lie, with the exception of a few prolific and pathological liars (Muzinic, Kozaric-Kovacic, & Marinic, 2016).

Several studies have examined why a person might be motivated to lie however, there remains a debate as to the primary motivations for lying. Ekman (1989) provides one of the most comprehensive classifications for motivations to lie and includes the following nine categories as motivations: To avoid punishment, to obtain a reward, to protect others, to protect the self from harm, to win the admiration of others, to get out of an awkward social situation, to avoid embarrassment, to maintain privacy, and to exercise power over others. While there could be some overlap in some situations, all of these motivations have defined differences. For example, to lie to obtain a reward, a student may lie to her professor about the reasoning for a late assignment so that she could get extra credit. Without this lie, the student would not be able to obtain the reward (the extra credit) that was otherwise unavailable to her. An area where there could be more overlap is lying to avoid embarrassment and lying to avoid punishment. A child

may lie to her mother about wetting the bed, but if she is lying and has no expectation that her mother would punish her for the transgression, then it would be considered lying to avoid embarrassment (Ekman, 1997). These motives were derived from both interviews and research with children and adults (Ekman, 1989). Notably, every lie may not fit perfectly into one of these categories (Ekman, 1997). For example, lies for the sake of politeness may not exactly fit into one of these motives, but other taxonomies consider these motives for lying altruistic in nature (McLeod & Genereux, 2008). Cross-cultural research has also identified various motivations to lie: covering a transgression, seeking a selfish advantage, avoidance behavior, protecting others, politeness, making a good impression, lies with malicious intent, and to be humorous (Levine, Ali, Dean, Abdulla, & Garcia-Ruano, 2016). The research on lying provides strong evidence that individuals choose to lie based upon different motives, however there is still some ambiguity as to why they choose these different motives. For the present study, the Ekman (1989) motives along with two more motives, altruistic and social acceptance lying (McLeod & Genereux, 2008) were examined, as these two motives did not completely fall under one of the Ekman (1989) motives. These were selected over other taxonomies because it was the most encompassing, each motive was unique and specific, and that their differences would be the most defined when compared to personality.

### **Differences Between People in Lying Motives**

Even at an early age, there are different patterns that emerge for lie telling and perhaps the reasons chosen to lie (Eysenck, Easting, & Esysenck, 1970). At a young age, children learn that they can lie to get themselves out of trouble and also learn to tell lies out of politeness (Lee, 2013). In fact, by age four most children are able to tell lies for different motives, including lying to obtain a reward, to avoid punishment, and for altruistic reasons (Talwar & Crossman, 2011).

In China, where collectivism is valued over individualism, children develop a preference to tell lies that benefit the collective group rather than those that would benefit the individual (Fu, Evans, Wang, & Lee, 2008). In high school, adolescents chose to lie to their parents because they want autonomy, suggesting that motives change and perhaps get more complex throughout growth (Jensen, Arnett, Feldman, & Cauffman, 2004). Developmental research suggests that from a young age we understand that lies can serve different purposes, and thus that lying may be a way to buffer through some difficult situations.

There are also gender differences in when and why people tell lies, and there are certain individual differences that influence the instances of when we choose to tell a lie. While the results have been mixed (Lewis & Saarni, 1993; Ross & Holmberg 1990; Tooke & Camire, 1991), some researchers have reported gender differences regarding lying behavior. DePaulo and Kashy (1998) found that women told as many other-oriented lies as self-centered ones in dyads of women but not mixed-sex dyads. There is also evidence that women lie more when they expect to meet someone again in the future (Tyler & Feldman, 2004). Men are more likely to lie to secure a small financial gain (Dreber & Johannesson, 2008); however this finding is eliminated when the stakes are raised (Childs, 2012). In sum, while it is helpful to understand individual differences like childhood upbringing and gender, it may be even more beneficial to look at personality differences in lying motives.

### **Dark Personality Traits and Lying**

**Dark Triad.** Most of the connections made between personality psychology and deception come from research looking at "dark" personality traits, otherwise known as the Dark Triad (Paulhus & Williams, 2002). These traits include Machiavellianism, psychopathy, and narcissism. These dark traits are all subclinical, meaning that they are not diagnosed and are not

under any clinical or forensic supervision (Furnham, Richards, & Paulhus, 2013). The measurement of these traits set out to uncover the more maladaptive side of the individual, thus it would not be surprising to see many connections to lying.

Machiavellianism is a personality trait highlighted by being a "master manipulator," and those who higher on it tend to be smart when choosing when and how to manipulate others (Christie & Geis, 1970). They also consider themselves (Giammarco, Atkinson, Baughman, Veselka, & Vernon, 2013) and they have been found ((DePaulo & Rosenthal, 1979) to be much better liars than others, perhaps because they are more comfortable engaging in deceptive behaviors or were better able to implement strategies to not get caught. They also tell more selfserving lies (Kashy & DePaulo, 1996), suggesting that they may be more likely to lie to obtain a reward. McLeod and Genereux (2008) echo this sentiment, finding that scoring higher on Machiavellianism led to lying more for self-gain and for conflict avoidance. The connections with lying for self-gain and Machiavellianism are clear, as those scoring high in Machiavellianism will manipulate and lie to benefit themselves. Choosing to lie to avoid conflict is interesting, and this may be a nuanced form of manipulation since they are more prone to complex forms of deception (Roeser et al., 2016). Those scoring higher on Machiavellianism tell more "white lies," that are generally small in nature (Jonason, Lyons, Baughman, & Vernon, 2014), perhaps to build rapport with others to facilitate gains for themselves or just to get themselves out of a problematic situation. This could also be connected to the longing of status by those scoring high in Machiavellianism (Adams, Luevano, & Jonason, 2014) and in essence "playing nice," to get what they want. Based on this evidence, those high in Machiavellianism may be more likely to lie to win admiration, avoid awkward social situations, or avoid embarrassment.

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Psychopathy is defined by impulse, thrill-seeking, getting what they want, and not caring about harming others to achieve it (Paulhus, 2014). While we think of the clinical psychopath as a serial criminal offender, subclinical psychopathy is made up of the same types of behaviors, but with more subdued intensity or frequency (Lebreton, Binning, & Adorno, 2006). While the clinical psychopath may rob banks as a thrill-seeking behavior, those scoring high on subclinical psychopathy might settle for stealing out of the church donation jar. This subdued nature does not mean that their lies cannot be exploitive or aggressive however (Jonason & Webster, 2012). Those scoring higher in psychopathy may find joy in deceiving others, and they may lie just to see if they can get away with it (Spidel, Herve, Greaves, & Yuille, 2011) or for their own personal enjoyment (Baughman et al., 2014). Additionally, individuals with high levels of psychopathy were more likely to lie to obtain a reward and to lie to bolster their self-image, but not to avoid punishment (Spidel et al., 2011). This speaks to the cunning and thrill-seeking nature of this trait, and that they may be willing to lie at all costs to obtain what they want. Thus, those scoring high on psychopathy may lie more to obtain a reward or to win admiration.

Subclinical narcissism consists of a personality that is grandiose, entitled, dominant, and superior (Paulhus & Williams, 2002). Much of the literature examining narcissistic personality traits and deception has been done in relation to the other "dark" personality traits. While narcissism has shown signs of a connection to deceptive behaviors, it appears that it is the least directly connected to specific lying behaviors. For example, Giammarco and colleagues (cite) found that those scoring higher on narcissism believed that they were better liars than the average person; however the effects were not as strong as those for other dark traits (Giammarco et al., 2013). Perhaps narcissists have higher levels of self-control than those with higher levels of the other "dark" traits (Jonason & Tost, 2010). While Machiavellianism and psychopathy

demonstrated strong relationships with lying behavior, narcissism appears to have relatively less impact (Azizil et al., 2016). While the connections are not as strong, narcissism may still be connected to lying to win admiration or to avoid embarrassment to fulfill a grandiose sense of self.

Finally, everyday sadism, getting enjoyment out of harming others, is a relatively new dark personality trait (Paulhus, 2014) and less is known about the link with lying. However, due to the strong link between everyday sadism and cruelty towards innocent people (Buckels, Jones, & Paulhus, 2013) and enjoyment others misfortune (Schumpe & Lafreniere, 2016), it would not be surprising to see an eventual connection to specific deceptive behaviors.

# Personality traits and lying

While research has established some connections between lying and personality through the Dark Triad of personality, less is known about the role of basic personality traits. These basic, more "everyday", personality traits are known as the five-factor model, or "Big Five" (John, Naumann, & Soto, 2008). The traits in the widely used Big Five Inventory are:

Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience.

Most of the research relating the Big Five traits to deception has been related to detecting deception based upon someone's personality (Gonza, Vrij, & Bull, 2001) rather than understanding the motives for lying they might have based upon their personality. Some studies have looked into the connection of personality and lying, however they are usually looking at specific reasoning rather than understanding motives. For example, Weiss and Feldman (2006) attempted to determine if extraverts lie more frequently (Weiss & Feldman, 2006), while Gillath and colleagues (cite) examined whether those high in conscientiousness are more honest (Gillath, Sesko, Shaver, & Chun, 2010). However, the connections between lying motives and all

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Big Five personality traits have not yet been examined. There have been some connections made to Big Five personality traits and fundamental motives (Olsen & Weber, 2004), and the finding is also true when looking into more specific personality traits (Roccas, Sagiv, Schwartz, & Knafo, 2002). These fundamental motives relate to individuals' goals, wishes, and desires (Olsen & Weber, 2004). Traits, on the other hand, pertain more to how the individual may act. Thus, it is entirely possible for an extrovert and an introvert to have the same goals but use different means to achieve them. However, differing personality traits may be connected to different motives, such as high extraversion to social contract and high neuroticism to order and acceptance. This provides evidence that personality does have an effect on different motives to achieve certain goals or desires. Thus, motives correlating strongly with certain personality traits could potentially influence behavior to achieve those motives, such as lying, if these goals and outcomes were attainable by deceiving others in some way.

Extraversion (e.g., the tendency to be outgoing, assertive, and talkative) is the primary personality trait that has been examined in regards to lying. Specifically, individuals who are more extraverted lie more frequently and find themselves in situations in which they have opportunities to lie more often (Kashy & DePaulo, 1996). High levels of extraversion are associated with lying more on job applications and during interviews (Weiss & Feldman, 2006). This may be due to highly extraverted individuals interacting with more people, thus having generally more opportunities to lie, or possibly because they feel more comfortable in social settings, which could lead to more lie-telling (Elaad & Reizer, 2015). What remains unclear is whether or not extraversion is related to different motivations to lie. Given that extraversion is positively related to motivations of acceptance, power, status, and vengeance (Olsen & Weber,

2004), extraverted individuals may be more likely to lie to win admiration, exercise power over others, and for social acceptance.

Agreeableness (e.g., helpful, warm, kind) has mainly been connected to lying in relation to the Dark Triad (Paulhus, 2014), as those scoring higher on Machiavellianism, psychopathy, and narcissism tend to have lower levels of agreeableness. Thus due to the strong connection between lying and the Dark Triad, overall lying would likely decrease with higher levels of agreeableness. Indeed, highly agreeable individuals are less likely to lie online (Stanton, Ellickson-Larew, & Watson, 2016). Individuals who are high in agreeableness are likely to tell fewer lies overall due to their trustworthy nature and tendency to try to be genuine (Gillath, Sesko, Shaver, & Chun, 2010). Agreeable individuals are more motivated by family values, and less motivated by power, status, or vengeance (Olsen & Weber, 2004) which many translate into lying for very different reasons. Additionally, agreeable individuals tend to be highly pro-social and thus may be more likely to tell lies to protect others (Graziano, Habashi, Sheese, & Tobin, 2007).

Conscientiousness (e.g., hard-working, dependable, reliable, and achieving) is associated with higher levels of honesty in general (Gillath, et al., 2010), in quick, impromptu decisions where they were trying to appear most attractive to a potential employer (Walczyk, Tcholakian, Newman, & Duck, 2016), and academics (Williams, Nathanson, & Paulhus, 2010; Giluk & Postlethewaite, 2015). Like agreeableness, those rating high in conscientiousness were motivated more by family values, and were more likely to be motivated by honor (Olsen & Weber, 2004). Thus, if conscientious individuals did engage in lying behavior, perhaps it would be to win admiration of an employer or professor.

Neuroticism (e.g., a tendency to be anxious, get stressed easily) also has some connections to lying and deception. When using social media sites like Facebook, neuroticism correlated with more deception (Michykyan, Subrahmanyam, & Dennis, 2014). Specifically, neurotic individuals are more likely to alter their Facebook accounts to appear to be different than themselves in some way. Those high in neuroticism tend to be more motivated by tranquility, social contact, acceptance, honor, and less by status (Olsen & Weber, 2004). Individuals who are high in neuroticism are more sensitive to punishment (Slessaraeva & Muraven, 2004), embarrassment (Edelman & McCusker, 1986), and perform better on tasks when punishment is a threat (Gallagher & Hall, 1992). In turn, individuals high on neuroticism may be more likely to lie to avoid embarrassment and punishment, and to protect themselves.

Finally, turning to openness to experience (e.g., inquisitive, artistic), prior literature has not connected this personality trait to lying, and there is no evidence suggesting that this facet will be connected to any specific deceptive behaviors. This may be due to the nature of the trait. Openness to experience focuses on the creative and curious side of a person, and thus may not be very connected to lying. However, openness to experience has been connected to the fundamental motive of social contact and curiosity (Olsen & Weber, 2004), and perhaps this could be expressed by lying for social acceptance.

### **Summary**

The purpose of the present study is to explore basic personality traits and their connection to deceptive behaviors. While several studies have looked at individual aspects of personality in their relation to specific acts of deception (e.g., Weiss & Feldman, 2006) or other more specific aspects of personality related to lying (e.g. McLeod & Genereux, 2008), to our knowledge there is no research investigating basic personality traits to deceptive behaviors and lying motivations.

This study examines the relationship between Big Five personality traits and their respective facet-level traits with 11 different motivations to lie.

- **Hypothesis 1:** Personality traits will be associated with different motives to tell lies (e.g., individuals who are more neurotic will be more likely to lie to avoid punishment)
- **Hypothesis 2:** Given that facets can influence different values and motivations despite being a component of the same factor (Roccas et al., 2002), facet level traits (sub-factors of the Big Five) will also be associated with different types of lies.
- **Hypothesis 3:** Dark personality traits (Paulhus, 2014) will also predict differentiating motivations to tell lies.

#### Overview

The current study examines the link between motivations to lie and personality traits. Participants completed self-report surveys online regarding personality, their lying habits, and basic demographic questions. Additionally, participants read several lying scenarios and rated the likelihood of lying.

### Method

### **Part I: Creation of lying scenarios**

Using eleven previously defined motives for lying (Ekman, 1989; McLeod & Genereux, 2008), scenarios were created based upon each motivation. In the initial pilot study, 39 college students (77% Female,  $M_{\rm age} = 24.20$ ) read 63 scenarios and then indicated the degree to which it reflected each lying motivation, was realistic, and was serious. These results were used to narrow down to the final 23 scenarios using by selecting the top two scenarios that were the most representative of the motive. This was identified by highest mean score of the different scenarios by participants' ratings.

After the initial pilot study, a separate group of 244 (78% female,  $M_{age} = 20.23$  years, SD = 3.61) college students read the final scenarios and rated how much they thought the scenario accurately described each of the motives on a 1 (*disagree strongly*) to 7 (*agree strongly*) scale. They were also asked to rate the scenarios on their levels of realism and seriousness on the same scale. Data collection for the scenario ratings ran simultaneously to the primary study on personality and lying.

Unfortunately, some participants were able to gain access to the primary study (n = 46) and some were able to take the survey multiple times (n = 13). To maintain validity, responses were excluded from the final analysis using the following criteria: participant completed the primary survey before the lying scenario questionnaire (46 responses), any additional responses to questionnaire after the initial response (29 responses), or failure to complete at least 50% of the survey (13 responses). Thus, the final sample size retained for analysis was 156.

Two scenarios were provided for each of the 11 motives, and one scenario covering both lying to avoid embarrassment and lying to avoid an awkward social situation was also included, thus giving a total of 23 scenarios (See Appendix A). When presented in the primary study, the scenarios were counterbalanced so that all participants were not seeing the scenarios in the same order. Scenarios were also gender balanced with one male and female scenario used for each motive.

# Part II: Personality and motives for lying

**Participants**. During the fall of 2016, 355 students (80% female,  $M_{age} = 20.07$  years, SD = 4.54) from the University of Tennessee at Chattanooga completed surveys related to personality and lying. During the data collection process, some participants were able to gain access to the separate study measuring the motives of the scenarios created (n = 7) and some were

able to take the survey multiple times (n = 20). To maintain validity, responses were excluded from the final analysis using the following criteria: participant completed the lying scenario questionnaire before completing the primary survey (14 responses), any additional responses to questionnaire after the initial response (40 responses), or failure to complete at least 50% of the survey (9 responses). Thus, the final sample size retained for analysis was 292.

### Materials.

Personality traits and facets. To assess personality, participants completed a 120-item measure of the Big Five traits (IPIP – NEO-120; Johnson, 2014). Each trait included 24 items and 6 facets (see Appendix B for items). Participants rated how much they agreed with a question related to their personality based on a scale from 1 (disagree strongly) to 7 (agree strongly).

Dark tetrad. To assess the dark tetrad traits participants completed a 44-item measure that examined Machiavellianism, narcissism, psychopathy, and sadism (Paulhus & Jones, 2014). The questions used the same 1-7 scale as the personality measure.

Honesty. To assess honesty, participants completed the Integrity/Honesty/Authenticity (INT) subscale of the Revised IPIP-Values in Action Scale (Peterson & Seligman, 2003). The survey asks 9 self-report questions about how true the characteristics described are of the participants' personality on a 1 (disagree strongly) to 7 (agree strongly) scale. This serves as our general tendency for honesty in analysis.

Lying Ability. To assess lying ability, participants completed the Perceived Lying Ability (PLA) Scale (Schiener & Goffin, 2012). This measures asks participants about their perceived ability to deceive others compared to the average person and to other students in their major. It includes 10 self-report questions where the participant rates how much statements about lying

are true of them on a 1 (disagree strongly) to 7 (agree strongly) scale, and then asks them to rate how much better they are at lying compared to others in their major. When comparing their results to other students in their major, students are asked to gauge what percentage of students they are better at in a variety of situations and is measured in increments of 10 percentage points from 0% to 100%.

Motivations to Lie. To assess motivations to lie, participants read 23 different scenarios representing a motivation to lie and then indicated their likelihood to lie in that scenario, if they had lied before in a similar scenario, and if lying was appropriate for that scenario. Each question was answered on a 1 (disagree strongly) to 7 (agree strongly) scale (see Appendix A for scenarios).

*Demographics*. Participants also provided typical demographic information such as gender, age, year in school, ethnicity, political orientation, and religiosity.

## **Procedure**

Students were recruited via the psychology online research system, SONA, through word of mouth via student only websites such as the Honors College Facebook page, and through links provided by professors to students in their classrooms. Upon opening the link, participants were asked to provide informed consent to begin the survey. They completed the personality measures first, completed the lying assessment questions and scenarios and finally completed basic demographic questions. Scenarios were counterbalanced so that all participants were not seeing the scenarios in the same order. Once the questionnaires were completed, participants were debriefed and thanked for their time. Students completing the survey through a class may have received extra credit for participating, but that was at the discretion of the instructor.

#### **Results**

# **Descriptive statistics**

Comparing overall responses for likelihood to lie, having lied in a similar situation, and acceptability of lying in the situation, motivations were rated differently (see Table 1).

Lies motivated by protecting the self were rated as the most likely to be told, have been told the most in the past, and were rated as the most acceptable motivations to lie. Lies motivated by exercising power over others were rated as the least likely and acceptable lies to tell.

Additionally, collapsing across scenarios and examining the relationship between the three different questions assessing lying, the questions were moderately to strongly positively correlated (see Table 2), given these relationships, the three items were used as composite to assess lying.

Next, examining the relationships between the motivations of lies, clear differences emerged (Table 3). While most motives for lying were positively correlated with one another, this was not true for all lies, and the strength varied across the relationships. For example, lying for social acceptance and to avoid embarrassment were strongly correlated, while lying to exercise power and to protect the self were not correlated. As expected, the motivations to lie were generally negatively correlated with an individual's tendency to be honest and positively correlated with an individual's perceived ability to lie. Finally, individuals who tended to be more honest also felt that they were not as good at lying.

# Personality traits and lying

To examine hypothesis 1, that personality traits would differentially relate to lying motivations, each of the personality traits was correlated with lying motives (Table 4). Since numerous correlations were conducted, the focus is more on the overall pattern instead of the

specific relationships. Each trait had at least one significant correlation with ?? and, counter to predictions, most relationships were negative. Conscientiousness was the most consistently related to motivations to lie while openness and neuroticism were the least consistently related. Conscientiousness, extraversion, and agreeableness were significantly positively correlated to general levels of honesty, meaning that participants scoring high in these traits had a higher tendency to be honest overall. Neuroticism was significantly negatively correlated to general levels of honesty, while openness to experience was not significantly related to honesty either way. The only trait significantly correlated to perceived lying ability was agreeableness, and more agreeable participants believed that they were worse liars overall.

To better understand the relationship between personality and motivations to lie, separate multiple regressions were run predicting each of the lying motives from the traits simultaneously. First, examining the unique relationships between the traits and motivations to lie, of the possible 55 relationships, 9 were found to be significant which is more than would be expected by chance (Sherman & Funder, 2009; Table 5). Openness to experience was significantly negatively related to lying to exercise power over others, Conscientiousness was significantly negatively related to lying to avoid punishment, to obtain a reward, to protect others, and to win admiration, Extraversion was significantly negatively related to lying to maintain privacy, Agreeableness was significantly negatively related to lying to avoid punishment, lying to obtain a reward, lying to win admiration, and lying to avoid an awkward social situation, and Neuroticism was not a significant related to any specific motives.

To further examine the relationship between lying motivations and the Big Five, 11 separate multiple regression analyses were run with each motivation predicted by all of the Big Five traits simultaneously while also controlling for honesty (Table 6). When holding honesty

constant, openness was significantly negatively related to lying for social acceptance and to exercise power over others. Conscientiousness was significantly negatively related to lying to protect others. Extraversion was significantly negatively related to lying to maintain privacy. Agreeableness was significantly negatively related to lying to avoid punishment, to obtain a reward, to win admiration, and to avoid an awkward social situation. Neuroticism was significantly negatively related to lying to exercise power over others. Overall, agreeableness was the most connected to Big Five traits, although it predicted a lower likelihood to lie.

This differs from the initial regressions that did not control for honesty in a few areas. Openness to experience differed as a significant relationship was found for lying with lying for social acceptance along with lying to exercise power. A new significant relationship was found with neuroticism and lying to exercise power. With regards to conscientiousness, the relationships to lying to avoid punishment, to obtain a reward, and to win admiration were not found. While the same significant relationships were found in both agreeableness and extraversion as the previous regressions.

In sum, the results support hypothesis one, however not in the way that was predicted. Big Five personality traits did significantly predict motives for lying, however it predicted less likely to lie rather than more likely to lie (i.e. those high in agreeableness were *less* likely to lie to avoid punishment).

# Facet level personality and lying

Next, examining hypothesis 2, that facet level personality traits would differentially relate to motivations to lie, multiple regressions were run predicting lying motivation from each facet, grouped by trait (e.g., the six facets underlying openness predicting each of the motives to lie).

Starting with openness, four different facets significantly predicted lying to obtain a reward in some way, and this was the motive most connected to the facets of openness (Table 7). Emotionality significantly negatively predicted seven different motives for lying and was the most negative predictor for lying, while liberalism significantly positively predicted eight motives for lying and was the most positive predictor of lying. Adventurousness significantly negatively predicted six different motives for lying, imagination significantly predicted three motives to lie, artistic interests predicted three motives, and intellect did not significantly predict any motives to lie. Table 8 shows correlations between openness facets. Overall, the facets were most connected to the lying motives of altruistic lying, social acceptance lying, lying to obtain a reward, lying to win admiration, to avoid an awkward social situation, and to maintain privacy with three significant relationships each. The least connected lying motives to openness facets were lying to protect the self and lying to protect others, with zero significant relationships to those motives.

Turning to conscientiousness, the facet most connected to lying motives was achievement-striving, as it significantly negatively predicted seven motives for lying and one positive motive (Table 9). Dutifulness and cautiousness significantly predicted two motives each, and self-discipline and orderliness both predicted one motive each. Self-Efficacy did not significantly predict any motives for lying. Conscientiousness facets were the most significantly related to the lying motives of altruistic lying, lying to win admiration, lying to maintain privacy, and lying to exercise power with two significant relationships each. Lying to avoid embarrassment was not significantly related to any of the facets for conscientiousness. Table 10 shows correlations for conscientiousness facets.

For extraversion, cheerfulness was the most connected facet to lying motives as it was significantly related to six different motives above and beyond the other extraversion facets (Table 11). Excitement-seeking was positively related to four motives, assertiveness three motives and activity level two motives. Friendliness and gregariousness were not significantly related to any lying motives above and beyond the other extraversion facets. The lying motives with the most significant relationships to extraversion facets were lying to obtain a reward and lying to protect others with three significant relationships each. While extraversion facets were not significantly related to lying to protect the self or lying to exercise power over others. Table 12 shows correlations between extraversion facets.

For agreeableness, morality was the most connected facet to lying motives as it was significantly related to nine different motives above and beyond the other agreeableness facets (Table 13). Trust was positively related to five motives, altruism four motives, moderation two motives, and sympathy two motives. Cooperation did not significantly predict any lying motives. The lying motives with the most significant relationships to agreeableness facets were lying for social acceptance and lying to win admiration, with four significant relationships each. While lying to protect the self and lying to maintain privacy had no significant relationships to agreeableness facets. Table 14 shows correlations between agreeableness facets.

Finally, neuroticism facets were the least connected to lying motives of the five sets of Big Five traits. Self-Consciousness was significantly related to three motives above and beyond other neuroticism facets (Table 15). Anxiety was positively related to two motives, anger two motives, immoderation one motive, and vulnerability one motive. Depression was not a significant predictor for any lying motives. The lying motives with the most significant relationships to neuroticism facets were lying to protect others, lying to avoid awkward social

situations, lying to avoid embarrassment, and lying to maintain privacy with two significant relationships each. While lying for altruistic reasons, lying to avoid punishment, lying to obtain a reward, lying to protect the self, lying to win admiration, and lying to exercise power over others had no significant relationships to neuroticism facets. Table 16 shows correlations between neuroticism facets. In sum, hypothesis two was also confirmed as several significant connections were found between facet traits and lying motives.

# Dark tetrad and lying motives

The correlations between dark tetrad traits and motives for lying, lying ability, and honesty can be found in Table 17. Multiple regression analyses were run to further examine the independent relationships between the dark tetrad and lying motivations (Table 18). Of the possible 44 significant relationships, 17 were found which is much more than would be expected by chance (Sherman & Funder, 2009), however given the number of models run, we focus on overall patterns instead of specific relationships. A separate multiple regression analysis was conducted with these traits, but also included our general measure of honesty (INT Scale) to further measure those relationships (Table 19). Fifteen significant relationships emerged even when honesty was included in the analyses. Machiavellianism was the dark tetrad trait most consistently related to motivations to lie while narcissism was the least consistently related to motivations to lie.

Machiavellianism was positively correlated with all of the motives to lie except to protect the self. While Machiavellianism was significantly connected to several motives to lie, the strongest connection to a motive was to avoid punishment and to obtain a reward, while the weakest significant connection was lying to maintain privacy. Individuals who score high on Machiavellianism tended to believe that they were better liars, and generally had lower levels of

honesty. Machiavellianism was significantly positively related to lying for altruistic, avoiding punishment, obtaining a reward, protecting the self, avoiding an awkward social situation, avoiding embarrassment, and maintaining privacy motivations to lie above and beyond the other dark tetrad traits.

Narcissism had the least significant correlations to lying motives of the four dark tetrad traits, and appears to be the least connected to specific lying motives overall out of the four dark traits measured. Those high in narcissism were significantly more likely to believe that they are better liars than others, however they were not significantly more dishonest compared to their dark counterparts. Narcissism was significantly negatively related to social acceptance lying and lying to maintain privacy, above and beyond the other dark tetrad traits.

Psychopathy was significantly correlated with each of the lying motivations except lying to avoid awkward social situations and lying to maintain privacy. Each of these correlations was positive, except lying to protect the self, which was negative. Those scoring higher in psychopathy generally believed that they were better liars overall, and had significantly lower levels of general honesty. Psychopathy was significantly positively related to lying to avoid punishment, lying to win admiration, and negatively to lying to protect the self, above and beyond the other dark tetrad traits.

Sadism was significantly positively correlated with all motives except lying to protect the self. Those scoring high in sadism thought that they were better liars on average, and had significantly lower levels of general honesty. Sadism was significantly positively related to lying to protect others, maintaining privacy, and exercising power over others.

Thus, hypothesis three was supported, as the different dark personality traits did significantly predict differing motives for lying.

#### **Discussion**

The purpose of the present study was to examine how basic personality traits and facets were related to specific motivations to lie and deceive others. To our knowledge, this is the first comprehensive study to look at the links between motivations for lying and personality psychology. In a sample of 292 participants, several connections were observed between lying motives and Big Five traits, facet level traits, and dark personality traits. In sum, participants had different patterns of motivations for lying based upon differences in personality characteristics.

### **Big Five Traits**

As hypothesized, personality traits, facets, and the dark tetrad traits were differentially related to motivations to lie, albeit not necessarily in the expected ways. Indeed, we predicted that personality would predict different reasons that someone may tell a lie; however personality seemed to predict when someone would be *less* likely to lie. In other words, personality is more likely to predict when someone will not lie rather than when they will, at least for Big Five traits. At the facet level, this pattern was not entirely true, as some facets predicted when someone was more likely to be motivated to lie. This highlights the importance of examining the connections at the facet level as well as the Big Five level. While Big Five traits are not related to one another?, facets of the same trait are related, and those relationships can be opposing within facets. Thus, facets may paint a clearer picture of lying, beyond what would be known by examining only the Big Five traits. While there were many significant connections to the various personality traits overall, it is best to focus on the patterns of these connections due to the exploratory nature of the present study.

Several connections were made by running the initial multiple regressions, where relationships were established above and beyond other Big Five traits. A second series of

multiple regressions was conducted to further establish these relationships above and beyond general levels of honesty. There were only a few changes when including the general measure of honesty, with only conscientiousness showing any sort of pattern.

Four significant relationships to lying motives for Conscientiousness emerged before controlling for honesty, but only one after. Conscientiousness was strongly correlated to our measure of honesty (see Table 3), and that could explain the significant relationships not remaining when controlling for honesty. Conscientiousness is generally connected with higher levels of honesty (Gillath et al., 2010), and this holds true throughout the present study. Before including honesty in analyses, Conscientious individuals were significantly less likely to lie to obtain a reward, to avoid punishment, and to win admiration, and when honesty was included were less likely to lie to protect others. It was hypothesized that conscientious individuals may be more likely to lie to win admiration of a boss or professor, however that was not found to be true. Conscientious individuals are generally motivated by honor (Olsen & Weber, 2004), and having honor and integrity may be more important than whatever they may achieve by lying.

We predicted that those scoring high in extraversion would be more likely to lie to win admiration and for social acceptance; this was not the case. In fact, initial correlations show that extraversion is significantly negatively correlated to lying for social acceptance. Perhaps extraverts feel more comfortable in social situations, and thus do not feel the need to lie for social acceptance. When controlling for honesty, extraversion was only significantly related to lying to maintain privacy and were less likely to tell lies for this reason. Extraverts crave social attention (Ashton, Lee, & Paunonen, 2002), and thus may be feel less inclined to maintain their privacy if it encourages social connection and interaction. Given the nature of extraversion, future research should focus on the interaction between lying motives and social interaction.

The connections made to agreeableness generally fits with the idea that more agreeable individuals show concern for others (Hirsh, 2010) and that they like to avoid interpersonal conflict (Jensen-Campbell & Graziano, 2001), as their lying habits show that they are less likely to lie for self-gain in several ways. While previous research has demonstrated that those high in agreeableness are less likely to lie overall (Gillath et al., 2010), the present study deeper establishes the idea that they are lying less to benefit themselves.

When examining correlations, neuroticism was related to being more likely to lie for social acceptance and to avoid embarrassment; however these connections did not remain significant when examining the independent relationships beyond the other traits in the multiple regressions. When controlling for honesty, those high in neuroticism were less likely to lie to exercise power over others. While this connection was significant, further research is needed to better establish and explain this connection.

Prior to the present study, openness to experience has only recently been connected to lying overall (Elaad & Reizer, 2015), but not to specific motivations. While there were not many initial correlations, individuals high on openness were less likely to lie for social acceptance and to exercise power over others, and the power connection held true even in a multiple regression when controlling for honesty. Those high in openness may be more curious about gaining information about others rather than having power over others or fitting in (McCrae & Costa, 1997). Since the connection between lying and openness is still emerging, additional research should be done to confirm the present study's results.

#### **Facet Level Traits**

Many of the facets of each Big Five trait were related to one or more of the various motivations to lie; however, there were some specific facets that were more significantly connected to lying motivations than others.

Morality (i.e., sticking to the rules and treating everyone fairly), a facet of agreeableness, predicted a lower likelihood of lying for nine of the eleven motivations. Generally, lying is seen as bad and against the rules in modern society (Bok, 1978), thus it would make sense that those high in morality would be less likely to tell lies for a variety of reasons. Another facet of agreeableness, trust (i.e., believing that others are generally good), predicted an increased likelihood of lying for five motives, mostly related to self-gain. A higher level of trust means that the individual generally believes that people are good and not out to harm you (Johnson, 2014). With this in mind, they may be more likely to lie for these self-gain reasons because if other people are trusting, then that could be taken advantage of in something like negotiation (Gunia, Brett, Nandkeolyar, & Kamdar, 2011). These two traits highlight the disagreement that can happen within the Big Five trait. In sum, while agreeableness overall may negatively predict lying, understanding personality at the facet level may provide a deeper understanding of lying motives.

Liberalism (i.e., the desire for progressive change), a facet of openness to experience, was the facet most connected to an increased likelihood to lie. Scoring low in liberalism suggests rigidity in ideas, and it is possible that those high in liberalism were more likely to lie due to believing that lying is okay if it connects to something in their worldview. For instance, research has found that being high in liberalism is related to low needs for order but high needs for equality (Hirsh, DeYoung, Xu, & Peterson, 2010), and perhaps this finding could explain the

increased lying habits. Those higher in liberalism may care less about the disorder that lying creates if it is for good reason. While openness to experience was not a key predictor for motivations to lie, these results suggest that the facet of liberalism should receive more attention in deception research to better understand the role of personality in lying.

Finally, achievement-striving (i.e., having a high desire to get ahead), a facet of conscientiousness, was related to eight different motives to lie. Conscientious individuals are generally more honest (Gillath et al., 2010) and for most motives to lie achieve-striving holds to this with seven significant motives where they are less likely to lie. However, those scoring high in the facet were more likely to tell lies to protect themselves. This facet highlights how there could be some disagreement of motives even within the same facet, and thus each facet could have its own complex relationship to lying motives.

## **Dark Personality Traits**

In sum, the dark tetrad traits were consistently related to motivations to lie, but the relationships varied by specific trait. While there were many significant connections to the dark personality traits overall, again it is best to focus on patterns related to the traits and motives. Unsurprisingly, Machiavellianism was the most connected dark personality trait to lying, as those high in this trait use any means necessary to get what they want. Generally, individuals who scored high on Machiavellianism tended to lie in ways that would benefit themselves in some way, exploit others, or would buffer a negative social interaction, consistent with their personality (Wilson, Near, & Miller, 1998). Narcissism was the least connected dark personality trait, only having two significant negative relationships when controlling for honesty. Both of narcissism's significant relationships to lying motives, lying for social acceptance and lying to maintain privacy, were related to social interactions. This fits with their grandiose style (Paulhus,

2014), as they do not care if people like them or feel the need to hide things about themselves. The pattern for psychopathy fits with their thrill-seeking behavior (Paulhus & Williams, 2002), as individuals scoring high in psychopathy were significantly less likely to lie to protect themselves and more likely to lie to avoid punishment. Individuals who scored high on sadism tended to lie more to exercise power over others and to avoid punishment, fitting with their personality; however, the significant connection to lying to protect others was unexpected. Sadism is still a relatively new dark personality trait (Paulhus, 2014), so it may take a while to fully understand the nature of this trait and its connection to lying.

#### **Limitations & Future Directions**

The present study does have some limitations that should be addressed. The present study used a convenience sample to gather data and resulted in a fairly homogeneous sample that included primarily college aged females residing in the southeast. A larger, more diverse sample is necessary to examine generalizability. Also, some scenarios fit different lying motivations and had some overlap which could have possibly led to inconsistencies in participants' responses. Future studies could create scenarios that are more exclusive to the specific motive. Finally, this study is exploratory and correlational in nature, and thus further research and replication is needed to strengthen the initial connections made here. Further, using an approach such as a daily diary study wherein participants report on actual lies they have told throughout their day could provide further connections to lying motives instead of using hypothetical scenarios.

#### Conclusion

The results of the present study clearly suggest that personality does is connected to motivations to lie. This is the first study to demonstrate that individuals differ in their

motivations for lying based upon their personality. This is an important revelation for those who have to understand deception in their everyday lives, such as hiring managers and law enforcement. Future research should further tap into these connections to better understand someone's motivation to tell a lie. While cognitive and social psychology has dominated the lying literature, the findings of the current study suggest that personality psychology may also deserve a seat at the table.

### References

- Adams, H. M., Luevano, V. X., & Jonason, P. K. (2014). Risky business: Willingness to be caught in an extra-pair relationship, relationship experience, and the Dark Triad.

  \*Personality and individual differences, 66, 204-207.
- Ashton, M. C., Lee, K., & Paunonen, S. V. (2002). What is the central feature of extraversion? Social attention versus reward sensitivity. *Journal of Personality and Social Psychology*, 83, 1, 245-252.
- Azizli, N., Atkinson, B. E., Baughman, H. M., Chin, K., Vernon, P. A., Harris, E., & Veselka, L. (2016). Lies and crimes: Dark triad, misconduct, and high-stakes deception. *Personality and Individual Differences*, 89, 34-39.
- Baughman, H. M., Jonason, P. K., Lyons, M., & Vernon, P. A. (2014). Liar liar pants on fire:

  Cheater strategies linked to the Dark Triad. *Personality and Individual Differences*, 71, 35-38.
- Bok, S. (1978). Lying: Moral choices in public and private life. New York: Pantheon.
- Burgoon, J., Mayew, W. J., Giboney, J. S., Elkins, A. C., Moffitt, K., Dorn, B., ... & Spitzley, L. (2015). Which spoken language markers identify deception in high-stakes settings?

  Evidence from earnings conference calls. *Journal of Language and Social Psychology*. doi: 10.1177/0261927X15586792
- Buckels, E. E., Jones, D. N., & Paulhus, D. L. (2013). Behavioral confirmation of everyday sadism. *Psychological Science*, 0956797613490749.
- Colwell, L. H., Miller, H. A., Miller, R. S., & Lyons, P. J. (2006). US police officers' knowledge regarding behaviors indicative of deception: Implications for eradicating erroneous beliefs through training. *Psychology, Crime & Law*, 12(5), 489-503.

doi:10.1080/10683160500254839

- Childs, J. (2012). Gender differences in lying. *Economics Letters*, 114(2), 147-149.
- Christie, R., & Geis, F. L. (1970). *Machiavellianism*. Academic Press, Incorporated.
- Cuperman, R., & Ickes, W. (2009). Big Five predictors of behavior and perceptions in initial dyadic interactions: Personality similarity helps extraverts and introverts, but hurts "disagreeables". *Journal of personality and social psychology*, 97(4), 667.
- DePaulo, B. M., & Kashy, D. A. (1998). Everyday lies in close and casual relationships. *Journal of personality and social psychology*, 74(1), 63.
- DePaulo, B. M., Kashy, D. A., Kirkendol, S. E., Wyer, M. M., & Epstein, J. A. (1996). Lying in everyday life. *Journal of personality and social psychology*, 70(5), 979.
- DePaulo, B. M., & Rosenthal, R. (1979). Telling lies. *Journal of personality and social* psychology, 37(10), 1713.
- Dreber, A., & Johannesson, M. (2008). Gender differences in deception. *Economics Letters*, 99(1), 197-199.
- Edelman, R. J., & McCusker, G. (1986). Introversion, neuroticism, empathy, and embarrassibility. *Personality and Individual Differences*, 7(2), 133-140. doi:10.1016/0191-8869(86)90047-4
- Ekman, P. (1997). Deception, lying, and demeanor. In D. F. Halpern, & A. E. Voiskounsky (Eds.), States of mind: American and post-soviet perspectives on contemporary issues in psychology; states of mind: American and post-soviet perspectives on contemporary issues in psychology (pp. 93-105, Chapter xx, 428 Pages) Oxford University Press, New York, NY.
- Ekman, P. (2009). Telling lies: Clues to deceit in the marketplace, politics, and marriage. New

- York, NY, US: W W Norton & Co.
- Ekman, P., Ekman, M. A. M., & Ekman, T. (1989). Why kids lie: How parents can encourage truthfulness. Scribner Book Company.
- Elaad, E., & Reizer, A. (2015). Personality correlates of the self-assessed abilities to tell and detect lies, tell truths, and believe others. *Journal of Individual Differences*.
- Ennis, E., Vrij, A., & Chance, C. (2008). Individual differences and lying in everyday life. *Journal of Social and Personal Relationships*, 25(1), 105-118.
- Eysenck, H. J., Easting, G., & Eysenck, S. B. G. (1970). Personality measurement in children: A dimensional approach. *The Journal of Special Education*, *4*(3), 261-268.
- Fu, G., Evans, A. D., Wang, L., & Lee, K. (2008). Lying in the name of the collective good: A developmental study. *Developmental Science*, 11(4), 495-503.
- Furnham, A., Richards, S. C., & Paulhus, D. L. (2013). The Dark Triad of personality: A 10 year review. *Social and Personality Psychology Compass*, 7(3), 199-216.
- Gallagher, D. J., & Hall, S. J. (1992). Proof-reading performance of extraverts and neurotics under punishment and reward conditions. *Personality and individual differences*, *13*(2), 229-235. doi:10.1016/0191-8869(92)90047-S
- Giammarco, E. A., Atkinson, B., Baughman, H. M., Veselka, L., & Vernon, P. A. (2013). The relation between antisocial personality and the perceived ability to deceive. *Personality and Individual differences*, *54*(2), 246-250. doi:10.1016/j.paid.2012.09.004
- Gillath, O., Sesko, A. K., Shaver, P. R., & Chun, D. S. (2010). Attachment, authenticity, and honesty: Dispositional and experimentally induced security can reduce self-and otherdeception. *Journal of Personality and Social Psychology*, 98, 841-855. doi:10.1037/a0019206

- Gozna, L. F., Vrij, A., & Bull, R. (2001). The impact of individual differences on perceptions of lying in everyday life and in a high stake situation. *Personality and Individual Differences*, 31(7), 1203-1216.
- Goffman, E. (1974). Frame analysis: An essay on the organization of experience. Harvard University Press.
- Gozna, L. F., Vrij, A., & Bull, R. (2001). The impact of individual differences on perceptions of lying in everyday life and in a high stake situation. *Personality and Individual Differences*, 31(7), 1203-1216.
- Graziano, W. G., Habashi, M. M., Sheese, B. E., & Tobin, R. M. (2007). Agreeableness, empathy, and helping: A person× situation perspective. *Journal of personality and social psychology*, *93*(4), 583. doi:10.1037/0022-3514.93.4.583
- Giluk, T. L., & Postlethwaite, B. E. (2015). Big five personality and academic dishonesty: A meta-analytic review. *Personality and Individual Differences*, 7259-67. doi:10.1016/j.paid.2014.08.027
- Gunia, B. C., Brett, J. M., Nandkeolyar, A. K., & Kamdar, D. (2011). Paying a price: Culture, trust, and negotiation consequences. *Journal of Applied Psychology*, 96(4), 774-789.
- Hirsh, J. B. (2010). Personality and environmental concern. *Journal of Environmental Psychology*, 30(2), 245-248.
- Hirsh, J. B., DeYoung, C. G., Xu, X., & Peterson, J. B. (2010). Compassionate liberals and polite conservatives: Associations of agreeableness with political ideology and moral values.

  \*Personality and Social Psychology Bulletin, 36(5), 655-664.
- Jensen-Campbell, L. A., & Graziano, W. G. (2001). Agreeableness as a moderator of interpersonal conflict. *Journal of personality*, 69(2), 323-362.

- Jensen, L. A., Arnett, J. J., Feldman, S. S., & Cauffman, E. (2004). The right to do wrong: Lying to parents among adolescents and emerging adults. *Journal of Youth and Adolescence*, 33(2), 101-112.
- John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative big five trait taxonomy. *Handbook of personality: Theory and research*, *3*, 114-158.
- Johnson, J. A. (2014). Measuring thirty facets of the Five Factor Model with a 120-item public domain inventory: Development of the IPIP-NEO-120. *Journal of Research in Personality*, *51*, 78-89. doi:10.1016/j.jrp.2014.05.003
- Jonason, P. K., Lyons, M., Baughman, H. M., & Vernon, P. A. (2014). What a tangled web we weave: The Dark Triad traits and deception. *Personality and Individual Differences*, 70, 117-119.
- Jonason, P. K., & Tost, J. (2010). I just cannot control myself: The Dark Triad and self-control.

  \*Personality and Individual Differences, 49(6), 611-615.
- Jonason, P. K., & Webster, G. D. (2012). A protean approach to social influence: Dark Triad personalities and social influence tactics. *Personality and Individual Differences*, 52(4), 521-526.
- Kashy, D. A., & DePaulo, B. M. (1996). Who lies? Journal of Personality and Social Psychology, 70, 1037–1051. doi: 10.1037/0022-3514.70.5.1037
- LeBreton, J. M., Binning, J. F., & Adorno, A. J. (2006). Subclinical psychopaths. *Comprehensive handbook of personality and psychopathology*, 1, 388-411.
- Lee, K. (2013). Little liars: Development of verbal deception in children. *Child development* perspectives, 7(2), 91-96.
- Levine, T. R., Ali, M. V., Dean, M., Abdulla, R. A., & Garcia-Ruano, K. (2016). Toward a Pan-

- cultural Typology of Deception Motives. *Journal of Intercultural communIcatIon* research, 45(1), 1-12.
- Lewis, M., & Saarni, C. (Eds.). (1993). Lying and deception in everyday life. Guilford Press.
- McCrae, R. R., & Costa, P. T. Jr. (1997). Personality trait structure as a human universal.

  American Psychologist, 52, 509–516. doi: 10.1037/0003-066X.52.5.509
- McLeod, B. A., & Genereux, R. L. (2008). Predicting the acceptability and likelihood of lying:

  The interaction of personality with type of lie. *Personality and Individual Differences*,

  45(7), 591-596. doi:10.1016/j.paid.2008.06.015
- Metts, S. (1989). An exploratory investigation of deception in close relationships. *Journal of Social and Personal Relationships*, 6, 495-512.
- Michikyan, M., Subrahmanyam, K., & Dennis, J. (2014). Can you tell who I am? Neuroticism, extraversion, and online self-presentation among young adults. *Computers in Human Behavior*, 33, 179-183.
- Muzinic, L., Kozaric-Kovacic, D., & Marinic, I. (2016). Psychiatric aspects of normal and pathological lying. *International journal of law and psychiatry*, 46, 88-93.
- Olson, K. R., & Weber, D. A. (2004). Relations between big five traits and fundamental motives.

  \*Psychological Reports, 95(3), 795-802. doi:10.2466/PR0.95.7.795-802
- Paulhus, D. L. (2014). Toward a taxonomy of dark personalities. *Current Directions in Psychological Science*, 23(6), 421-426.
- Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism,

  Machiavellianism, and psychopathy. *Journal of research in personality*, 36(6), 556-563.
- Peterson, C. (1996). Deception in intimate relationships. *International Journal of Psychology*, 31(6), 279-288.

- Peterson, C., & Seligman, M. E. P. (2004). *Character strengths and virtues: A handbook and classification*. New York: Oxford University Press/Washington, DC: American Psychological Association.
- Roberts, B. W., Kuncel, N. R., Shiner, R., Caspi, A., & Goldberg, L. R. (2007). The power of personality: The comparative validity of personality traits, socioeconomic status, and cognitive ability for predicting important life outcomes. *Perspectives on Psychological Science*, 2(4), 313-345. doi:10.111/j.1745-6916.2007.00047.x
- Roccas, S., Sagiv, L., Schwartz, S. H., & Knafo, A. (2002). The big five personality factors and personal values. *Personality and social psychology bulletin*, 28(6), 789-801.
- Roeser, K., McGregor, V. E., Stegmaier, S., Mathew, J., Kübler, A., & Meule, A. (2016). The Dark Triad of personality and unethical behavior at different times of day. *Personality and Individual Differences*, 88, 73-77. doi:10.1016/j.paid.2015.09.002
- Roggensack, K. E., & Sillars, A. (2014). Agreement and understanding about honesty and deception rules in romantic relationships. *Journal Of Social And Personal Relationships*, 31(2), 178-199. doi:10.1177/0265407513489914
- Rosenbaum, S. M., Billinger, S., & Stieglitz, N. (2014). Let's be honest: A review of experimental evidence of honesty and truth-telling. *Journal Of Economic Psychology*, 45181-196. doi:10.1016/j.joep.2014.10.002
- Ross, M., & Holmberg, D. (1990). Recall of Events in the History of a Close Relationship. *Self-inference processes*, 6, 135.
- Schneider, T. J., & Goffin, R. D. (2012). Perceived ability to deceive and incremental prediction in pre-employment personality testing. *Personality and Individual Differences*, 52(7), 806-811.

- Schumpe, B. M., & Lafrenière, M. A. K. (2016). Malicious joy: Sadism moderates the relationship between schadenfreude and the severity of others' misfortune. *Personality and Individual Differences*, 94, 32-37.
- Sherman, R. A., & Funder, D. C. (2009). Evaluating correlations in studies of personality and behavior: Beyond the number of significant findings to be expected by chance. *Journal of Research in Personality*, 43, 1053-1061.
- Slessareva, E., & Muraven, M. (2004). Sensitivity to punishment and self-control: The mediating role of emotion. *Personality and Individual Differences*, *36*(2), 307-319. doi:10.1016/S0191-8869(03)00087-4
- Spidel, A., Hervé, H., Greaves, C., & Yuille, J. C. (2011). 'Wasn't me!' A field study of the relationship between deceptive motivations and psychopathic traits in young offenders.

  \*Legal and Criminological Psychology, 16(2), 335-347.
- Stanton, K., Ellickson-Larew, S., & Watson, D. (2016). Development and validation of a measure of online deception and intimacy. *Personality and Individual Differences*, 88, 187-196.
- Talwar, V., & Crossman, A. (2011). From little white lies to filthy liars: The evolution of honesty and deception in young children. Advances in Child Development and Behaviour, 40(140), 139-179.
- Tooke, W., & Camire, L. (1991). Patterns of deception in intersexual and intrasexual mating strategies. *Ethology and Sociobiology*, *12*(5), 345-364.
- Turner, R. E., Edgley, C., & Olmstead, G. (1975). Information control in conversations: Honesty is not always the best policy. *Kansas Journal of Sociology*, 69-89.
- Tyler, J. M., & Feldman, R. S. (2004). Truth, lies, and self-presentation: how gender and

- anticipated future interaction relate to deceptive behavior. *Journal of Applied Social Psychology*, *34*(12), 2602-2615.
- Vazire, S. (2010). Who knows what about a person? The self-other knowledge asymmetry (SOKA) model. *Journal of personality and social psychology*, 98(2), 281.
- Vrij, A. (2008). Detecting lies and deceit: Pitfalls and opportunities. John Wiley & Sons.
- Vrij, A. (2014). 14 Detecting lies and deceit: Pitfalls and opportunities in nonverbal and verbal lie detection. *Interpersonal Communication*, *6*, 321.
- Vrij, A., Fisher, R. P., & Blank, H. (2015). A cognitive approach to lie detection: A metaanalysis. *Legal and Criminological Psychology*. doi:10.111/lcrp.12088
- Walczyk, J. J., Tcholakian, T., Newman, D. N., & Duck, T. (2016). Impromptu Decisions to Deceive. *Applied Cognitive Psychology*, *30*(6), 934-945.
- Weiss, B., & Feldman, R. S. (2006). Looking good and lying to do it: Deception as an impression management strategy in job interviews. *Journal of Applied Social Psychology*, 36(4), 1070-1086. doi:10.1111/j.0021-9029.2006.00055.x
- Williams, K. M., Nathanson, C., & Paulhus, D. L. (2010). Identifying and profiling scholastic cheaters: their personality, cognitive ability, and motivation. *Journal of Experimental Psychology: Applied*, 16(3), 293.
- Wilson, D. S., Near, D. C., & Miller, R. R. (1998). Individual differences in Machiavellianism as a mix of cooperative and exploitative strategies. *Evolution and Human Behavior*, 19(3), 203-212.

Appendix A

Please indicate the degree to which you feel the scenario provide is an accurate description of motive provided. .

1	2	3	4	5	6	7
Disagree	Disagree	Disagree	Neutral	Agree a	Agree	Agree
strongly		a little		little		strongly

# Motive: Altruistic Lying (i.e. lying to keep from hurting someone's feelings or lies that are self-sacrificing)

Mason is out shopping with his girlfriend. Mason's girlfriend tries on an outfit and asks, "Does this make me look fat?" Mason lies and says that the outfit looks great, despite noticing that she had gained some weight recently.

A co-worker of Ruth's is hosting a party and asks Ruth if she is enjoying the food. In order not to hurt his feelings, Ruth lies and says the food is fantastic, even though it is overcooked and tasteless.

### Motive: Social Acceptance Lying (i.e. Lies that make one fit more into a group)

Noah's fellow students are complaining about an instructor they do not like. In order to fit in, Noah lies and says he dislikes the instructor as well, even though he really likes the instructor.

Sarah's friend tells her that he really likes a new political candidate and asks Sarah's if she likes the candidate. In order to gain her friend's approval, she lies and says she does like them, even though she really dislikes the candidate.

# Motive: To Avoid Punishment (i.e. Lies that help the liar get out of trouble or avoid negative backlash)

Alicia returned home two hours after her curfew. When her parents catch her sneaking in, she tells them that her watch stopped working so she did not know she was two hours late.

David tells his wife that he has to work late all week, but in reality he's having an affair with a co-worker who is only in town for the week.

# Motive: To Obtain a Reward (i.e. Lying to get something that you otherwise could not obtain without lying)

Olivia forgot to go to the play for extra credit. When her professor asks her about it, she lies and says she went so she can get the points.

Lucas is out to dinner with friends. Even though it's not his birthday, he tells the server it is so he can get a free dessert.

# Motive: To Protect Others from Punishment (i.e. Lying to help someone else avoid being punished or to protect their feelings)

Benjamin and Greg are policemen and partners. When Benjamin was questioned about Greg's irrational behaviour in the field lately, Benjamin tells the supervisor he thinks Greg is fine despite noticing his problematic behaviour.

Raven's little brother lost their father's prized signed football. To keep her brother from getting spanked, Raven lies and says she's the one who lost it.

### Motive: To Protect the Self from Harm (i.e. Lies that keep yourself from being harmed)

After hearing a knock on the door, Ethan who is home alone, tells the stranger at the door that, "my father is taking a nap and you should come back later."

Ellie accidentally backs into a parked car. As she is driving away, the owner arrives and asks Ellie if she saw who damaged his car. In order to avoid paying for the damage, Ellie lies and says she has no idea who did it.

# Motive: To Win the Admiration of Others (i.e. Lies that make the speaker seem more appealing in some facet)

While Emily was attending her high school reunion, she lies and tells her former classmates that she became a doctor when she actually works at a fast food restaurant.

Justin is riding in the car with his friends, and his friends are looking through his CD collection. They find a CD that they think is stupid and begin to make fun of Justin for having it. Justin lies and says that the CD belongs to his parents when the CD is really his.

While out on lunch, Savannah finds a business card of an agent for a modeling company on the street. When she returns to school, she lies and tells her classmates that the company has hired her to be a model.

# Motive: To Get Out of an Awkward Social Situation (i.e. Lying to avoid an awkward encounter)

While waiting on a meeting to start, John and a friend are making jokes about another co-worker, Jim. When Jim walks in expectantly and asks what they're talking about, John lies and says that they were discussing a television show.

Tasha is at dinner with a blind date, and it isn't going well. She pretends to get a phone call and makes up an excuse to leave the restaurant.

# Motive: To Avoid Embarrassment (i.e. Lying to keep from being embarrassed while not fearing punishment)

Justin is riding in the car with his friends, and his friends are looking through his CD collection. They find a CD that they think is stupid and begin to make fun of Justin for having it. Justin lies and says that the CD belongs to his parents when the CD is really his.

When asked by a friend how things are going at work, Kendra tells her friend that things are "fine," despite just recently being laid off.

Peter is out partying with some friends. While waiting in line for the bathroom, he loses control and pees on himself. Instead on telling his friends the truth, he lies and tells them that someone spilt a drink on him.

Motive: To Maintain Privacy (i.e. Lying to keep something private without informing the other person that its personal)

Vanessa's friend notices that she didn't get wine with dinner as she usually did. When questioned about it, instead of revealing that she is recently pregnant, Vanessa lies and says she has a big presentation at work tomorrow and wants to be sure she's sharp.

Chase is asked about his weekend by some friends at work, instead of telling them that he had a romantic getaway with his new girlfriend, he lies and says he stayed in with a cold.

# Motive: To Exercise Power Over Others (i.e. Lies to control others or to control the information others have available)

Christian, who is a police officer, makes a citizen he has pulled over go through a drunk driving test when he really knows that the person isn't intoxicated. He lies and says he will arrest him if he doesn't follow through with the test.

Victoria is a manager in her office. She lies and tells her employees that they will have to work over the weekend because their project is due Monday, in reality the project isn't due until the following Friday.

### Appendix B

Please indicate the degree to which you feel the statement is characteristic or true of you.

1	2	3	4	5	6	7
Disagree strongly	Disagree	Disagree	Neutral	Agree a little	Agree	Agree strongly
		a little				

**Trait: Neuroticism** 

Facet: Anxiety (Alpha = 0.78) (R = Reverse coded item)

I worry about things.

I fear the worst.

I am afraid of many things.

I get stressed out easily.

**Facet: Anger (0.87)** 

I get angry easily.

I get irritated easily.

I lose my temper.

I am not easily annoyed. (R)

Facet: Depression (0.85)

I often feel blue.

I dislike myself.

I am often down in the dumps.

I feel comfortable with myself. (R)

**Facet: Self-Consciousness (0.70)** 

I find it difficult to approach others.

I am afraid to draw attention to myself.

I only feel comfortable with friends.

I am not bothered by difficult social situations. (R)

**Facet: Immoderation (0.69)** 

I go on binges.

I rarely overindulge. (R)

I easily resist temptations. (R)

I am able to control my cravings. (R)

Facet: Vulnerability (0.76)

I panic easily.

I become overwhelmed by events.

I feel that I'm unable to deal with things.

I remain calm under pressure. (R)

**Trait: Extraversion** 

Facet: Friendliness (0.81)

I make friends easily.

I feel comfortable around people.

I avoid contacts with others. (R)

I keep others at a distance. (R)

## Facet: Gregariousness (0.79)

I love large parties.

I talk to a lot of different people at parties.

I prefer to be alone. (R)

I avoid crowds. (R)

### Facet: Assertiveness (0.85)

I take charge.

I try to lead others.

I take control of things.

I wait for others to lead the way. (R)

## Facet: Activity-Level (0.69)

I am always busy.

I am always on the go.

I do a lot in my spare time.

I like to take it easy. (R)

## **Facet: Excitement-Seeking (0.73)**

I love excitement.

I seek adventure.

I enjoy being reckless.

I act wild and crazy.

### Facet: Cheerfulness (0.79)

I radiate joy.

I have a lot of fun.

I love life.

I look at the bright side of life.

### **Trait: Openness to Experience**

## **Facet: Imagination (0.83)**

I have a vivid imagination.

I enjoy wild flights of fantasy.

I love to daydream.

I like to get lost in thought.

## **Facet: Artistic-Interests (0.74)**

I believe in the importance of art.

I see beauty in things that others might not notice.

I do not like poetry. (R)

I do not enjoy going to art museums. (R)

## **Facet: Emotionality (0.74)**

I experience my emotions intensely.

I feel others' emotions.

I rarely notice my emotional reactions. (R)

I don't understand people who get emotional. (R)

#### Facet: Adventurousness (0.70)

I prefer variety to routine.

I prefer to stick with things that I know. (R)

I dislike changes. (R)

I am attached to conventional ways. (R)

#### Facet: Intellect (0.73)

I love to read challenging material.

I avoid philosophical discussions. (R)

I have difficulty understanding abstract ideas. (R)

I am not interested in theoretical discussions. (R)

### Facet: Liberalism (0.63)

I tend to vote for liberal political candidates.

I believe that there is no absolute right and wrong.

I tend to vote for conservative political candidates. (R)

I believe that we should be tough on crime. (R)

## **Trait: Agreeableness**

## Facet: Trust (0.85)

I trust others.

I believe that others have good intentions.

I trust what people say.

I distrust people. (R)

## Facet: Morality (0.74)

I use others for my own ends. (R)

I cheat to get ahead. (R)

I take advantage of others. (R)

I obstruct others' plans. (R)

#### Facet: Altruism (0.73)

I am concerned about others.

I love to help others.

I am indifferent to the feelings of others. (R)

I take no time for others. (R)

#### Facet: Cooperation (0.71)

I love a good fight. (R)

I yell at people. (R)

I insult people. (R)

I get back at others. (R)

### Facet: Modesty (0.73)

I believe that I am better than others. (R)

I think highly of myself. (R)

I have a high opinion of myself. (R)

I boast about my virtues. (R)

## Facet: Sympathy (0.72)

I sympathize with the homeless.

I feel sympathy for those who are worse off than myself.

I am not interested in other people's problems.

I try not to think about the needy.

#### **Trait: Conscientiousness**

## Facet: Self-Efficacy (0.77)

I complete tasks successfully.

I excel in what I do.

I handle tasks smoothly.

I know how to get things done.

## **Facet: Orderliness (0.83)**

I like to tidy up.

I often forget to put things back in their proper place. (R)

I leave a mess in my room. (R)

I leave my belongings around. (R)

## **Facet: Dutifulness (0.67)**

I keep my promises.

I tell the truth.

I break the rules. (R)

I break my promises. (R)

## **Facet: Achievement-Striving (0.79)**

I do more than what's expected of me.

I work hard.

I put little time and effort into my work. (R)

I do just enough work to get by. (R)

## **Facet: Self-Discipline (0.71)**

I am always prepared.

I carry out my plans.

I waste my time. (R)

I have difficultly starting tasks. (R)

## **Facet: Cautiousness (0.88)**

I jump into things without thinking. (R)

I make rash decisions. (R)

I rush into things. (R)

I act without thinking. (R)

Table 1. *Descriptive data for likelihood, previous behavior, and acceptability of lying based upon motive.* 

Motivation	Likeliho Lyii		Have Tole Similar S			ability of ving
	M	SD	M	SD	M	SD
Altruistic	5.02	1.37	4.67	1.58	4.35	1.43
Social Acceptance	3.09	1.60	3.16	1.70	2.94	1.48
Avoid Punishment	3.34	1.55	3.43	1.60	2.55	1.35
Obtain Reward	3.61	1.98	3.55	2.17	2.80	1.69
Protect Other	3.54	1.37	3.35	1.67	3.18	1.26
Protect Self	5.71	1.64	5.21	1.96	5.66	1.68
Win Admiration	2.22	1.18	2.25	1.56	2.21	1.12
Avoid Awkward Social Situation	5.02	1.35	3.64	1.84	4.56	1.37
Avoid Embarrassment	4.31	1.34	3.48	1.63	4.03	1.29
Maintain Privacy	3.75	1.37	3.07	1.86	3.72	1.35
Exercise Power	1.84	1.40	2.12	1.90	1.82	1.38

Note: 1-7 scale...

Table 2.

Descriptive data and correlations for total scenario questions.

_	M	SD	1	2	3
Likelihood of Lying	3.77	0.95			
Told Similar Lie Before	3.46	1.25	0.68**		
Acceptability of Lying	3.44	0.91	0.81**	0.58**	

<sup>\*\*</sup> p<0.001.

Table 3.

Correlations between scenarios, Perceived Lying Ability, and Integrity, Honesty, and Authenticity Scale

	ALT	SA	AP	OR	PO	PS	WA	AWK	AE	MP	EP	PLA	INT
Altruistic													
Social Acceptance	$0.55^{**}$												
Avoid Punishment	$0.54^{**}$	$0.50^{**}$											
Obtain Reward	$0.47^{**}$	$0.48^{**}$	$0.66^{**}$										
Protect Other	0.41**	0.43**	$0.51^{**}$	$0.42^{**}$									
Protect Self	$0.29^{**}$	$0.22^{**}$	$0.24^{**}$	0.25**	$0.27^{**}$								
Win Admiration	$0.47^{**}$	$0.57^{**}$	0.57**	$0.50^{**}$	$0.45^{**}$	0.09							
Avoid Awkward													
Social Situation	$0.47^{**}$	$0.44^{**}$	$0.47^{**}$	$0.47^{**}$	$0.38^{**}$	$0.44^{**}$	$0.40^{**}$						
Avoid													
Embarrassment	$0.60^{**}$	$0.79^{**}$	0.53**	0.51**	$0.45^{**}$	$0.37^{**}$	$0.55^{**}$	$0.67^{**}$					
Maintain Privacy	$0.75^{**}$	$0.54^{**}$	$0.45^{**}$	$0.37^{**}$	$0.40^{**}$	$0.35^{**}$	$0.49^{**}$	$0.47^{**}$	$0.60^{**}$				
Exercise Power	$0.26^{**}$	0.36**	$0.41^{**}$	$0.30^{**}$	0.43**	0.03	$0.52^{**}$	$0.17^{**}$	$0.25^{**}$	$0.34^{**}$			
Perceived Lying													
Ability Scale	$0.19^{**}$	0.09	$0.32^{**}$	$0.30^{**}$	$0.15^{*}$	0.01	$0.22^{**}$	$0.25^{**}$	$0.21^{**}$	0.09	0.10		
Integrity/													
Honesty/Authenticity	-0.30**	-0.30**	-0.29**	-0.26**	-0.20**	0.10	-0.35**	$-0.14^*$	-0.29**	-0.17**	-0.16**	-0.22**	

p < 0.05, p < 0.01.

Table 4. Correlations between Big Five personality traits and lying motives.

	Openness	Conscientiousness	Extraversion	Agreeableness	Neuroticism
Altruism	-0.10	-0.13*	-0.14*	-0.20**	0.04
Social Acceptance	-0.15*	-0.19**	-0.18**	-0.13*	0.16**
Avoid Punishment	-0.02	-0.24**	-0.02	-0.30**	0.06
Obtain Reward	-0.07	-0.23**	-0.02	-0.31**	0.04
Protect Others	0.02	-0.23**	-0.04	-0.04	0.05
Protect Self	0.04	-0.24**	0.09	0.08	0.04
Win Admiration	-0.09	-0.22**	0.13	-0.32**	0.05
Avoid Awkward Social Situations	0.05	-0.06	-0.01	-0.15**	0.09
Avoid Embarrassment	-0.03	-0.14*	-0.10	-0.12*	0.15*
Maintain Privacy	-0.08	-0.03	-0.16**	-0.11	0.03
Exercise Power	-0.17**	-0.12*	-0.06	-0.18**	-0.04
PLA Scale	0.10	-0.08	0.06	-0.29**	-0.01
INT Scale	0.03	0.62**	0.23**	0.48**	-0.32**

<sup>\*</sup>p<0.05, \*\*p<0.001

Table 5.

Regression analysis predicting motive from Big Five traits.

<u></u>		uistic	So	cial ptance	Avo Punish	oid	Obtain F	Reward	Protect	Others	Prote	ct Self	W: Admir		Avo Awky Soc Situa	ward cial	Avo Embarra		Maiı Priv	ntain vacy		rcise wer
	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t
O.	-0.06	-1.01	-0.11	-1.86	0.03	0.46	-0.03	-0.50	0.02	0.31	0.02	0.35	-0.04	-0.64	0.08	1.34	0.01	0.08	-0.04	-0.70	-0.15*	-2.52
C.	-0.06	-0.96	-0.12	-1.86	-0.15*	-2.38	-0.15*	-2.39	-0.27**	-4.12	0.04	0.52	-0.13*	-1.98	0.03	0.50	-0.07	-1.01	0.03	-0.39	-0.09	-1.40
E.	-0.11	-1.72	-0.11	-1.71	0.06	0.97	0.05	0.73	-0.01	-0.15	0.13	1.88	-0.04	-0.55	0.05	0.81	-0.03	-0.41	-0.17*	-2.60	-0.50	-0.75
A.	-0.16	-2.48	-0.04	-0.60	-0.25**	-4.04	-0.26**	-4.18	0.06	0.87	0.05	0.84	-0.26**	-4.25	-0.17*	-2.70	-0.07	-1.10	-0.09	-1.46	-0.12	-1.94
N.	-0.07	-0.97	0.05	0.67	-0.003	-0.04	-0.04	-0.63	-0.04	-0.66	0.12	1.77	-0.06	-0.95	0.11	1.57	0.10	1.45	-0.06	-0.90	-0.13	-1.91
R	0.3	24	0.	27	0.3	33	0.3	34	0.2	25	0.	15	0.3	34	0.1	19	0.1	9	0.2	20	0.	25
$\mathbb{R}^2$	0.0	06	0.	07	0.1	.1	0.1	2	0.0	)6	0.	02	0.1	12	0.0	)4	0.0	)3	0.0	04	0.	07
Adj. R <sup>2</sup>	0.0	04	0.	06	0.0	)9	0.1	0	0.0	)4	0.	01	0.1	10	0.0	)2	0.0	)2	0.0	02	0.	05
F	3.5	57*	4.3	37 <sup>*</sup>	6.93	3**	7.40	)**	3.6	$8^*$	1.	34	7.4	1**	2.2	22	2.0	)3	2.2	$28^*$	3.9	93*

<sup>\*</sup>p < 0.05, \*\*p < 0.001. Notes: O = Openness, C = Conscientiousness, E = Extraversion, A = Agreeableness, N = Neuroticism

Table 6. Regression analysis predicting motive from Big Five traits including honesty (INT Scale).

	<i>n anatysts</i> Altru	_	Soc Accep	ial	Avo Punish	oid	Obtain I		Protect		Prote	ct Self	Wi Admir		Av Awk Soo Situa	ward cial	Avo Embarras		Mair Priv			rcise wer
	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t
O.	-0.08	-1.44	-0.13*	-2.27	0.01	0.23	-0.04	-0.64	0.02	0.31	0.03	0.47	-0.06	-1.02	0.07	1.22	-0.02	-0.31	-0.06	-0.96	-0.16*	-2.67
C.	0.90	1.23	0.02	0.21	-0.07	-0.99	-0.10	-1.37	-0.27**	-4.12	-0.01	-0.18	0.01	0.17	0.08	1.09	-0.09	1.16	0.13	1.67	-0.03	-0.43
E.	-0.10	-1.58	-0.10	-1.58	0.07	1.08	0.05	0.79	-0.01	-0.15	0.12	1.82	-0.02	-0.40	0.06	0.87	-0.02	-0.25	-0.16*	-2.50	-0.04	-0.68
A.	-0.07	-1.02	0.04	0.68	-0.20*	-3.11	-0.23**	-3.48	0.06	0.87	0.03	0.37	-0.18*	-2.80	-0.14*	-2.10	0.02	0.32	-0.04	-0.51	-0.09	-1.30
N.	-0.10	-1.53	0.01	0.22	-0.02	-0.33	-0.05	-0.81	-0.04	-0.66	0.13	1.92	-0.09	-1.46	0.10	1.39	0.06	0.95	-0.08	-1.24	-0.14*	-2.11
INT.	-0.33**	-4.30	0.30**	-3.86	-0.17*	-2.29	-0.11	-1.49	-0.13	-1.64	0.11	1.32	-0.30**	-3.99	-0.11	-1.35	-0.33**	-4.24	-0.21*	-2.72	-0.13	-1.65
R	0.3	34	0.3	34	0.3	35	0.3	35	0.2	26	0.17		0.4	10	0.2	21	0.3	0	0.2	25	0.	27
$\mathbb{R}^2$	0.1	.2	0.1	12	0.1	13	0.1	.2	0.0	)7	0.	03	0.1	16	0.0	04	0.0	9	0.0	06	0.	07
Adj. R <sup>2</sup>	0.1	.0	0.1	10	0.1	11	0.1	.0	0.0	)5	0.	01	0.1	14	0.0	02	0.0	7	0.0	)4	0.	05
F	6.23	3**	6.3	1**	6.7	4**	6.50	5**	3.5	3*	1.	40	9.1:	5**	2.1	6*	4.79	**	3.1	8*	3.7	75 <sup>*</sup>

<sup>\*</sup>p < 0.05, \*\*p < 0.001. Notes: O = Openness, C = Conscientiousness, E = Extraversion, A = Agreeableness, N = Neuroticism, INT = Integrity, Authenticity, & Honesty Scale = Popenness, R =

Table 7.

Regression analysis predicting motive from Openness facets.

	Altru	istic	Soc Accep		Avo Punish		Obtain I	Reward	Protect	Others	Prote	ct Self	Wi Admir		Avo Awky Soc Situa	ward ial	Avo Embarra		Mair Priv		Exer Pov	
	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t
Ima.	0.05	0.75	0.01	0.09	0.24**	3.75	0.15*	2.42	0.11	1.59	-0.03	-0.42	0.07	1.02	0.18*	2.77	0.03	0.48	-0.01	-0.10	0.07	1.07
Art.	-0.003	-0.05	-0.03	-0.46	-0.13	-0.18	-0.04	-0.63	-0.14	-1.91	-0.03	-0.47	-0.16*	-2.24	-0.08	-1.13	0.05	0.71	-0.02	-0.22	-0.14*	-2.00
Emo.	-0.17*	-2.71	-0.12*	-1.99	-0.14*	-2.29	-0.15*	-2.51	-0.01	-0.19	0.12	1.88	-0.17*	-2.83	-0.07	-1.06	-0.06	-0.90	-0.19*	-3.10	-0.14*	-2.24
Adv.	-0.16*	-2.55	0.23**	-3.67	-0.08	-1.28	-0.15*	-2.42	-0.10	-1.56	-0.08	-1.31	0.01	0.13	-0.18*	-2.86	-0.17*	-2.65	-0.14*	-2.14	-0.04	-0.60
Int.	-0.05	-0.69	-0.08	-1.14	-0.12	-1.70	-0.14	-1.96	0.12	1.62	0.06	0.89	-0.06	-0.93	-0.01	-0.20	-0.12	-1.74	-0.01	-0.11	0.06	0.86
Lib.	0.13	1.99	0.19	3.06	0.20**	3.21	0.19*	3.10	0.05	0.84	0.04	0.54	0.18*	2.96	0.22**	3.51	0.20*	3.16	0.19*	2.99	-0.10	-1.54
R	0.2	24	0.3	30	0.3	32	0.3	80	0.1	0.17		14	0.2	29	0.2	28	0.2	.5	0.2	27	0.2	24
$\mathbb{R}^2$	0.0	)6	0.0	)9	0.1	.0	0.0	)9	0.0	)3	0.	02	0.0	)9	0.0	)8	0.0	6	0.0	)7	0.0	06
Adj. R <sup>2</sup>	0.0	)4	0.0	)7	0.0	08	0.0	)7	0.0	)1	0.0	001	0.0	07	0.0	)6	0.0	4	0.0	)5	0.0	)4
F	2.9	4*	4.7	0**	5.34	4**	4.6	7**	1.3	39	1.	00	4.42	2**	4.1	3**	3.0	5*	3.5	9*	2.8	34*

<sup>\*</sup>p < 0.05, \*\*p < 0.001. Notes: Ima = Imagination, Art = Artistic Interests, Emo = Emotionality, Adv = Adventurousness, Int = Intellect, Lib = Liberalism

Table 8. *Correlations between openness facets.* 

	Openness	Conscientiousness	Extraversion	Agreeableness	Neuroticism
O.					
C.	0.06				
E.	$0.14^{*}$	0.24**			
A.	0.19**	0.39**	0.17**		
N.	-0.11	-0.36**	-0.45**	-0.16**	
	$\frac{-0.11}{0.5} \times \frac{1}{2} $		-0.45**	-0.16**	

\*p<0.05, \*\*p<0.001

Table 9.

Regression analysis predicting motive from Conscientiousness facets.

ke <u>gressioi</u>	Altru		Soo Accep	cial	Avo Punish	oid	Obtain I		Protect	Others	Protec	ct Self	Wi Admir		Av Awk Soo Situa	ward cial	Avo Embarra		Mair Priv		Exer Pov	
	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t
Eff.	0.11	1.48	0.03	-0.38	0.07	0.99	0.01	0.19	-0.06	-0.72	0.10	1.24	-0.02	-0.29	0.09	1.18	0.04	0.55	0.11	1.47	-0.09	-1.20
Ord.	-0.01	-0.21	0.001	0.02	-0.09	-1.43	-0.10	-1.55	-0.15*	-2.33	-0.06	-0.87	-0.04	-0.57	-0.10	-1.50	-0.03	-0.43	0.03	0.41	-0.04	-0.61
Dut.	0.07	-1.02	-0.09	-1.31	-0.04	-0.57	-0.14	-1.92	-0.05	-0.72	-0.05	-0.71	-0.19*	-2.64	-0.20*	-2.74	-0.10	-1.32	-0.05	-0.73	-0.01	-0.19
Ach.	-0.23*	-3.09	-0.18*	-2.41	-0.29**	-3.94	-0.22*	-3.04	-0.14	-1.84	0.23*	3.07	-0.25**	-3.42	0.01	0.07	-0.11	-1.43	3.00 0.23**		-0.22*	-2.91
Dis.	-0.11	-1.33	0.01	0.15	0.05	0.56	0.12	1.49	0.08	0.99	-0.09	-1.06	0.10	1.27	0.04	0.48	-0.08	-0.90	-0.09	-1.03	0.21*	2.55
Cau.	-0.15*	2.34	0.02	0.37	-0.04	-0.60	-0.03	-0.39	-0.04	-0.58	-0.06	-0.93	0.07	1.06	0.08	1.24	0.09	1.34	0.21*	3.19	-0.04	-0.66
R	0.2	28	0.3	24	0.3	31	0.3	30	0.2	27	0.:	28	0.3	33	0.3	20	0.2	0	0.2	26	0.2	24
$\mathbb{R}^2$	0.0	8	0.0	06	0.1	10	0.0	)9	0.0	07	0.0	05	0.1	1	0.0	04	0.0	4	0.0	07	0.0	06
Adj. R <sup>2</sup>	0.0	06	0.0	04	0.0	)8	0.0	)7	0.0	)5	0.0		0.0		0.0	02	0.0	2	0.0		0.0	
F	3.80	5**	2.8	89*	4.90	6**	4.6	8**	3.6	50*	2.5	55*	5.6	7**	1.9	90	1.9	1	3.5	51*	2.8	31*

<sup>\*</sup>p < 0.05, \*\*p < 0.001. Notes: Eff = Self-Efficacy, Ord = Orderliness, Dut = Dutifulness, Ach = Achievement-Striving, Dis = Self-Discipline, Cau = Cautiousness

	Self- Efficacy	Orderliness	Dutifulness	Achievement- Striving	Self- Discipline	Cautiousness
S.Eff.						
Ord.	0.32**					
Dut.	0.45**	0.33**				
Achieve.	0.54**	0.35**	0.47**			
S.Disc.	0.60**	0.45**	0.50**	0.55**		
Caut.	0.24**	0.28**	0.40**	0.30**	0.37**	

<sup>\*\*</sup>p<0.001

Table 11.

Regression analysis predicting motive from Extraversion facets.

Regressio	Altruistic		Social Acceptance		Avoid Punishment		Obtain Reward		Protect Others		Prote	Protect Self		Win Admiration		oid ward cial ation	Avo Embarra		Mair Priv			rcise wer
	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t
Fri.	0.03	0.38	-0.03	-0.33	0.03	0.34	0.02	0.25	0.02	0.19	0.06	0.65	-0.03	-0.39	0.07	0.79	-0.001	-0.01	-0.05	-0.58	-0.04	-0.47
Gre.	0.09	1.12	0.04	0.45	0.13	1.57	0.10	1.23	0.07	0.07 0.81		-0.09	0.15	1.87	-0.01	-0.15	0.07	0.78	0.09	1.12	0.14	1.64
Ast.	-0.18*	-2.81	-0.12	-1.83	-0.08	-1.19	-0.02	-0.37	-0.16*	-2.49	-0.01	-0.11	-0.03	-0.41	-0.04	-0.58	-0.09	-1.30	-0.15*	-2.28	-0.06	-0.86
Act.	-0.04	-0.57	-0.08	-1.22	-0.12	-1.87	-0.21**	-3.34	0.04	-0.67	0.11	1.64	-0.16*	-2.62	-0.03	-0.48	-0.06	-1.00	-0.05	-0.85	-0.11	-1.65
Exc.	-0.004	-0.06	0.09	1.40	0.23**	3.51	0.19*	2.94	0.22**	3.28	0.09	1.24	0.12	1.73	0.14*	2.01	0.12	1.76	-0.05	-0.70	-0.02	-0.25
Che.	-0.14	-1.92	-0.19*	-2.66	-0.24**	-3.47	-0.16*	-2.22	-0.17*	-2.38	-0.07	-1.01	-0.22*	-3.08	-0.13	-1.81	-0.19	-2.69	-0.06	-0.84	-0.05	-0.63
R	0.2	24	0.2	27	0.3	32	0.3	30	0.28		0.15		0.29		0.15		0.27		0.22		0.16	
$\mathbb{R}^2$	0.0		0.0		0.1		0.0		0.0			02	0.0		0.0		0.0		0.0			03
Adj. R <sup>2</sup>	0.0		0.0		0.0		0.0		0.0			001	0.0		0.0		0.0		0.0			01
F	2.8	$6^*$	3.5	i7*	5.28	8**	4.5	5**	3.9	6**	1.	03	4.1	7**	1.	11	2.5	5 <sup>*</sup>	2.3	80*	1.	27

<sup>\*</sup>p < 0.05, \*\*p < 0.001. Notes: Fri = Friendliness, Gre = Gregariousness, Ast = Assertiveness, Act = Activity-Level, Exc = Excitement-Seeking, Che = Cheerfulness

Table 12.
Correlations between extraversion facets.

	Friendliness	Gregariousness	Assertiveness	Activity- Level	Excitement- Seeking	Cheerfulness
Friend.						
Greg.	0.67**					
Assert.	0.34**	0.31**				
Act.	0.26**	0.26**	0.38**			
Exc.	$0.28^{**}$	0.43**	0.23**	0.14**		
Cheer.	0.53**	0.41**	0.28**	0.40**	0.40**	

<sup>\*\*</sup>p<0.001

Table 13.

Regression analysis predicting motive from Agreeableness facets.

<u></u>	Altru		Soc Accep	ial	Avo Punish	oid	Obtain I	Reward	Protect	Others	Prote	ct Self	Wi Admir		Av Awk Soo Situa	ward cial	Avo Embarra		Mair Priv			rcise wer
	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t
Tru.	0.04	0.69	0.18*	2.93	0.14*	2.30	0.12*	1.97	0.15*	2.51	0.06	0.96	0.12*	2.08	0.02	0.34	0.11	1.80	0.05	0.77	0.11	1.78
Mor.	-0.24**	-3.39	-0.24**	-3.38	-0.21*	-3.03	-0.29**	-4.27	-0.27**	-3.74	-0.01	-0.07	-0.21*	-3.09	-0.22*	-3.02	-0.25**	-3.46	-0.12	-1.67	-0.17*	-2.35
Alt.	-0.05	-0.67	-0.21*	-2.74	-0.18*	-2.47	-0.12	-1.63	-0.15	-1.89	0.02	0.22	-0.38**	-5.12	0.07	0.85	-0.06	-0.70	-0.15	-1.84	0.29**	-3.74
Coo.	-0.01	-0.08	-0.002	-0.03	-0.12	-1.64	-0.07	-0.98	0.02	0.26	-0.10	-1.41	-0.09	-1.25	-0.14	-1.83	-0.04	-0.60	-0.01	-0.14	-0.03	-0.43
Mod.	-0.01	-0.10	0.14*	2.15	-0.09	-1.45	-0.05	-0.78	0.16*	2.44	0.06	0.92	0.04	0.65	0.01	0.11	0.05	0.73	0.07	0.98	0.02	0.30
Sym.	0.003	0.04	0.07	0.97	0.10	1.48	0.03	0.46	0.13	1.75	0.14	1.72	0.15*	2.14	0.07	0.90	0.10	1.20	0.06	0.72	0.18*	2.37
R	0.2	27	0.3	2	0.4	<b>4</b> 0	0.4	<b>1</b> 1	0.2	0.29		0.15		14	0.26		0.26		0.18		0.3	31
$\mathbb{R}^2$	0.0	)8	0.1	1	0.1	16	0.1	17	0.0	)8	0.	02	0.1	9	0.0	07	0.0	7	0.0	03	0.0	09
Adj. R <sup>2</sup>	0.0	)6	0.0	9	0.1	14	0.1	15	0.0	)6	0.0	002	0.1	.8	0.0	05	0.0	5	0.0	01	0.0	07
F	3.80	O**	5.5	4*	8.7	6**	9.4	4**	4.32	2**	1.	11	11.2	.7**	3.3	36 <sup>*</sup>	3.4	4*	1.	63	4.8	37**

<sup>\*</sup>p < 0.05, \*\*p < 0.001. Notes: Tru = Trust, Mor = Morality, Alt = Altruism, Coo = Cooperation, Mod = Modesty, Sym = Sympathy

	Trust	Morality	Altruism	Cooperation	Modesty	Sympathy
Trust						
Morality	0.02					
Altruism	0.26**	0.41**				
Cooperation	0.18**	0.51**	$0.48^{**}$			
Modesty	-0.12*	0.38**	0.21**	0.35**		
Sympathy	0.08	0.46**	0.62**	0.48**	0.24**	

\*p<0.05, \*\*p<0.001

Table 15.

Regression analysis predicting motive from Neuroticism facets.

<u>Legression</u>	Altru	•	Social Acceptance		Avoid Punishment		Obtain Reward		Protect Others I		Protec	Protect Self		Win Admiration		oid ward cial ation	Avo Embarra		Maii Priv			rcise wer
	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t
Anx.	0.01	0.09	0.05	0.58	-0.03	-0.36	0.01	0.08	-0.003	-0.03	0.13	1.53	-0.08	-0.94	0.26*	3.14	0.17*	2.05	0.001	-0.01	-0.15	-1.75
Ang.	-0.13	-1.94	-0.07	-1.05	0.09	1.39	0.05	0.70	-0.15*	-2.20	-0.02	-0.33	0.03	0.39	-0.03	-0.49	-0.03	-0.45	-0.16*	-2.38	0.01	0.13
Dep.	0.14	1.92	0.11	1.46	0.10	1.30	0.02	0.21	0.09	1.16	0.03	0.39	0.10	1.36	0.09	1.21	0.10	1.35	0.08	1.06	0.01	0.14
Con.	0.13	1.96	0.21*	3.04	0.04	0.53	0.06	0.92	0.02	0.34	-0.08	-1.21	0.06	0.88	-0.02	-0.24	0.14*	2.09	0.18*	2.67	0.06	0.91
Imm.	-0.13	-0.21	0.04	0.63	0.09	1.41	0.09	1.39	0.14*	2.26	-0.05	-0.79	0.06	0.89	0.01	0.11	-0.12	-0.27	0.02	0.37	0.08	1.25
Vul.	-0.08	-0.85	-0.08	-0.89	-0.14	-1.56	-0.12	-1.27	-0.004	-0.04	0.02	0.20	-0.06	-0.69	-0.18*	-2.03	-0.15	-1.67	-0.07	-0.72	-0.02	-0.22
R	0.2	20	0.3	25	0.1	18	0.1	0.13 0.		0.19		0.14		0.14		0.21		23	0.22		0.	15
$\mathbb{R}^2$	0.0	)4	0.0	06	0.0	)3	0.0	)2	0.0	)4	0.	02	0.0	)2	0.0		0.0	5	0.0	05	0.0	02
Adj. R <sup>2</sup>	0.0		0.0		0.0		-0.0		0.0			002	-0.0		0.0		0.0		0.0			002
F	2.0	)4	3.0	)2*	1.5	54	0.8	30	1.7	7	0.	90	0.9	93	2.1	3*	2.5	6*	2.3	85 <sup>*</sup>	1.0	09

<sup>\*</sup>p < 0.05, \*\*p < 0.001. Notes: Anx = Anxiety, Ang = Anger, Dep = Depression, Con = Self-Consciousness, Imm = Immoderation, <math>Vul = Vulnerability

Table 16.
Correlations between neuroticism facets.

	Anxiety	Anger	Depression	Self- Consciousness	Immoderation	Vulnerability
Anxiety						
Anger	$0.40^{**}$					
Depression	0.47**	0.34**				
Self-Cons.	0.41**	0.29**	0.42**			
Immoderation	0.21**	0.29**	0.29**	0.06		
Vulnerability	0.71**	0.43**	0.54**	0.47**	0.24**	

\*\*p<0.001

Table 17. Correlations between lying scenarios and Dark Tetrad, Perceived Lying Ability scale, and the Values in Action scale

	Machiavellianism	Narcissism	Psychopathy	Sadism
Altruistic	0.30**	-0.04	0.22**	0.29**
Social Acceptance	0.17**	-0.13*	0.16**	0.22**
Avoid Punishment	0.44**	0.13*	0.43**	0.37**
Obtain Reward	0.39**	$0.12^{*}$	0.35**	0.31**
Protect Others	$0.12^{*}$	-0.04	0.17**	0.23**
Protect Self	0.09	-0.04	-0.17**	-0.09
Win Admiration	0.25**	0.05	0.39**	0.36**
Avoid Awkward Social Situations	0.27**	0.05	0.09	$0.14^{*}$
Avoid Embarrassment	0.25**	-0.05	0.14**	0.20**
Maintain Privacy	$0.17^{*}$	-0.13*	0.15	0.19**
Exercise Power	0.16**	0.01	0.23**	0.34**
PLA Scale	0.38**	0.22**	0.27**	0.27**
INT Scale	-0.38**	0.03	-0.43**	-0.44**

<sup>\*</sup>p < 0.05, \*\*p < 0.001

Table 18.

Regression analysis predicting motive from dark tetrad traits.

	Altru	Altruistic A		Social Acceptance		Avoid Punishment		Obtain Reward		Protect Others		ct Self	W Admii		Ave Awk Soc Situa	ward cial	Avo Embarra		Mair Priv			rcise wer
	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t
Mac.	0.25**	3.50	0.12	1.63	0.29**	4.33	0.29**	4.09	0.003	0.04	0.30**	4.09	0.01	0.15	0.33**	4.51	0.24**	3.23	0.18**	2.43	-0.02	-0.33
Nar.	-0.15*	-2.46	- 0.22**	-3.46	-0.06	-1.11	-0.04	-0.63	-0.10	-1.53	-0.02	-0.03	-0.10	-1.74	-0.01	-0.08	-0.12*	-1.99	-0.18*	-2.89	-0.05	-0.77
Psy.	0.03	0.35	0.06	0.66	0.25*	2.88	0.18*	1.99	0.04	0.45	0.34**	-3.66	0.31*	3.47	-0.15	-1.63	-0.05	-0.52	-0.10	-1.06	-0.01	-0.07
Sad.	0.12	1.46	0.15	1.69	0.04	0.52	0.03	0.30	0.22*	2.51	-0.07	-0.08	0.15	1.82	0.06	0.73	0.12	1.42	0.20*	2.28	0.36**	4.30
R	0.3	35	0.3	30	0.4	<b>1</b> 9	0.4	12	0.2	25	0.	29	0.4	<b>1</b> 1	0.2	29	0.2	8	0.2	29	0	34
$\mathbb{R}^2$	0.1	12	0.0	09	0.2	24	0.1	8	0.0	)6	0.	08	0.1	17	0.0	08	0.0	8	0.0	08	0.	12
Adj. R <sup>2</sup>	0.1	1	0.0	08	0.2	23	0.1	17	0.0	)5	0.	07	0.1	16	0.0	07	0.0	7	0.0	07	0.	11
F	9.63	3**	6.7	$0^{**}$	22.1	15**	15.3	3**	4.6	8**	6.5	3**	14.7	75 <sup>**</sup>	6.5	58 <sup>*</sup>	6.20	)**	6.4	3**	9.4	4**

<sup>\*</sup>p < 0.05, \*\*p < 0.001. Notes: Mac = Machiavellianism, Nar = Narcissism, Psy = Psychopathy, Sad = Sadism

Table 19.

Regression analysis predicting motives from dark tetrad traits while also including honesty.

	Altru	•	Soc Accep	cial	Avo Punisł	oid	obtain F		Protect		Protec	et Self	Wi Admir		Av Awk Soo Situa	ward cial	Avo Embarra		Mair Priv			rcise wer
	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t	β	t
Mac.	0.22*	3.05	0.08	1.11	0.28**	4.07	0.27**	-1.33	-0.02	-0.23	0.32**	4.24	-0.03	-0.36	0.32**	4.29	$0.20^{*}$	2.71	0.17*	2.24	-0.03	-0.36
Nar.	-0.11	-1.82	-0.17*	-2.70	-0.05	-0.79	-0.02	-0.32	-0.07	-1.11	-0.02	-0.31	-0.06	-1.00	0.01	0.17	-0.08	-1.21	-0.17*	-2.60	-0.04	-0.70
Psy.	-0.01	-0.15	0.01	0.08	0.23*	2.61	0.15	1.72	0.01	0.13	- 0.32**	-3.38	0.26*	2.87	-0.17	-1.81	-0.11	-1.15	-0.12	-1.22	-0.01	-0.10
Sad.	0.90	1.05	0.10	1.22	0.03	0.33	0.01	0.10	$0.20^{*}$	2.25	0.01	0.11	0.11	1.34	0.05	0.57	0.08	0.92	0.18*	2.11	0.36**	4.22
INT.	-0.18*	-2.76	0.21**	-3.25	-0.08	-1.30	-0.08	-1.33	-0.08	-1.33	-0.11	-1.67	-0.20**	-3.23	-0.07	-1.08	-0.22**	-3.41	-0.07	-0.99	-0.07	-0.99
R	0.3	38	0.3	35	0.5	50	0.4	-3	0.2	27	0	30	0.4	15	0	30	0.3	4	0.2	29	0.	34
$\mathbb{R}^2$	0.1	14	0.	12	0.2	25	0.1	8	0.0	07	0.0	09	0.2	20	0.0	09	0.1	2	0.0	09	0.	12
Adj. R <sup>2</sup>	0.1	13	0.1	11	0.2	23	0.1	7	0.0	)5	0.0	07	0.1	.9	0.0	07	0.1	0	0.0	07	0.	10
F	9.4	0**	7.8	9**	18.3	9**	12.6	5**	4.3	3**	5.5	4**	14.2	8**	5.5	$0^{**}$	7.47	7**	5.3	4**	7.5	54**

<sup>\*</sup>p < 0.05, \*\*p < 0.001. Notes: Mac = Machiavellianism, Nar = Narcissism, Psy = Psychopathy, Sad = Sadism, INT = Integrity, Authenticity, & Honesty Scale | Natural Content | Natural Content