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The Relationship between Psychopathic Personality Traits and Lying

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The Relationship between Psychopathic Personality Traits and Lying

by

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A dissertation submitted in partial fulfillment
of the requirements of the degree of
Doctor of Philosophy
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Abstract

The current study examined the relationship between psychopathic personality traits and various forms of deception. Through the use of the Elemental Psychopathy Assessment to measure psychopathy, and several different assessment tools to measure deception, including the Multidimensional Deception Inventory (MDI), the relationship between psychopathic personality traits and deception was examined. Using an undergraduate sample of 261 participants at a large research university in the Southeastern United States, the relationship between the aforementioned constructs was explored. Results indicated that the overarching personality traits of Antagonism and Disinhibition were positively related to multiple dimensions of lying behavior. Frequency of lies told, Duping Delight (lies told for enjoyment), and lies told for personal gain/impression management and to avoid disclosing pertinent information were positively related to both Antagonism and Disinhibition. Results point to the need for future study in this area, as limited previous research has looked at the overlap between psychopathic personality traits and deception.

Chapter One:

Introduction

Psychopathy and the psychopathic individual is a frequently explored topic in psychological and criminological research. Psychopathic individuals are typically described as being skillful manipulators categorized by interpersonal traits such as being superficially charming, being manipulative, and having the tendency to lie pathologically (Hare, Forth, & Hart, 1989). These callous, unemotional individuals are unconcerned with the wants and needs of others, and the majority of their interpersonal interactions are directed towards achieving their own interpersonal goals and fulfilling their intrinsic needs. At the current time it is estimated that these types of individuals make up one percent of the general population, but as much as 20 percent of the incarcerated population (Patrick, 2007; Schuten & Silver, 2012). While one percent of the population might not appear to be a large number, psychopaths are responsible for a disproportionate amount of crime (Schouten & Silver, 2012).

Originally identified over two hundred years ago by Phillippe Pinel (1801; 1962), and later explicitly identified and described by American psychiatrist Hervey Cleckley (1976), psychopathy is a distinct clinical condition or syndrome categorized by what appears to be nothing more than typical antisocial acts underlined by severe psychopathology. Unlike other mentally disordered individuals, the psychopath does not show any overt signs of either neurosis or psychosis, but is highly pathological beneath the surface. Based on case descriptions, Cleckley outlined sixteen criteria that could be used to identify the psychopathic individual, including

superficial charm, absence of delusional thinking, lack of remorse or shame, and untruthfulness and insincerity.

A common misperception is that psychopathy is the same as antisocial personality disorder (ASPD) (Patrick, 2007). While psychopathy and antisocial personality disorder share many similar characteristics, including deceitfulness, lack of remorse, and impulsivity, the interpersonal and affective traits found within “factor one” of Hare’s (1980) original conceptualization of the Psychopathy Checklist differentiate the two disorders (Patrick, 2007). Unlike the purely antisocial individual, who is clinically diagnosed with ASPD, the psychopath has a distinctly identifiable affective and interpersonal interactional style. The psychopathic individual has a certain glibness and superficiality in his/her communication style, as well as a level of grandiosity and egocentricity not seen in the solely anti-social individual (Patrick, 2007). Behavioral manifestations of the psychopath and ASPD individual will typically look very similar. However, upon interacting with the psychopathic individual, a distinguishable difference in personality will be noticed.

While the psychopathic individual’s personality is comprised of many distinguishable traits or facets, of particular interest are the interpersonal aspects of personality that the psychopath displays. Identified by Hare (1980) in his initial conceptualization of the Psychopathy Checklist (PCL) as factor one items, the psychopathic individual is pathologically egocentric, incapable of love, unresponsive in general personal interrelations, lacking remorse and shame, untruthful, insincere, and pathologically deceptive. While psychopaths have been identified as deceptive both empirically and clinically (Rogers & Cruise, 2000), the degree to which and variety of ways in which the psychopathic individual uses deception has not been frequently studied. Moreover, the degree to which individual levels of psychopathic traits

correlate with the various lying typologies found within typical human interactions has rarely been investigated. This area of study is of importance, as the lies told by individuals high in psychopathic traits take a large toll on both the lives of individuals and society at large. Psychopathic individuals such as Ponzi-Schemer Bernie Madoff have told lies to many and caused great harm to society at large. While the psychopathic individual is known to lie pathologically (Cleckley, 1976), a more detailed understanding of the frequency of lies they tell, to whom they tell their lies, and why they lie will shed further light on psychopathy as a disorder. A more nuanced understanding of this topic will also help individuals dealing with the psychopath both identify and deal with the lies they are being told.

A key purpose of this study is to examine the relationship between lying and psychopathy. Understanding how the psychopath deceives will lend further insight into their unique pathology. It might very well be that the psychopathic individual uses lying explicitly for instrumental reasons, such as manipulating others in order to gain personal advantage or an edge in their daily interactions. Conversely, psychopathic individuals might lie simply because they derive some sort of perverse satisfaction from doing so. The manner in which psychopathic individuals lie might also provide further insight as to how they see the world. The relationship between psychopathy and lying might provide further information on how lying relates to specific facets of psychopathy and could ultimately lead to a refinement of existing measures of the disorder. Ideally, these refinements will tap into deceitfulness in a more nuanced way.

A better understanding of the relationship between psychopathy and lying likely will have forensic implications. As the current level of psychopathy in the general population is 1% (Hare, 1980), a better understanding of lying as it relates to psychopathy may help clinicians, court personnel, and lay people alike deal with the psychopathic individual and the personal

havoc and financial cost their lies exert on society. Assessing the relationship between specific psychopathic traits and various indices of lying furthers this endeavor. By specifically being able to parse out traits in which the psychopathic individual differs from the norm, and how these traits influence deception, the lies of the psychopathic individual will be more fully understood and more effectively identified. While the general consensus points to psychopathy being untreatable, understanding core traits of the disorder as they relate to lying might improve treatment outcomes, and potentially improve the best practices of clinicians.

While lying and deception is not explicitly criminal, and not the typical overt behavior explored by criminologists, pathological lying is a form of deviance and is relevant to the field of criminology (Barker and Carter, 1990). The degree to which the common criminal lies for the purpose of deceiving others, trying to reduce or nullify consequences for illegal acts and/or in the context of crimes committed, is an important part of criminological research. Criminals lie to police officers, court officials, and parole boards among other criminal justice system entities. To what extent do these individuals lie to others? As it is believed that between 20 and 25 percent of all incarcerated criminals are classified as psychopathic (Patrick, 2007), and psychopathic individuals tend to lie pathologically (Hare, 1980), an understanding of the intersection and interrelationship between psychopathy and lying is related to the concepts of crime and deviance and is an important area of study in the field of Criminology.

Within the context of this research study, individual levels of psychopathic traits will be measured using the Elemental Psychopathy Assessment (EPA), a 178-item self-report inventory created by Lynam et al. (2011). Relying on the Five-Factor Model (Costa & McCrae, 1992), Lynam et al. (2011) developed the EPA to tap into general and specific psychopathic traits. More specifically, the EPA can be used as a global measure of psychopathy by summing all of the 16

measured facets, each of which captures a specific trait commonly found among psychopathic individuals. This measure has been found to have high levels of both convergent validity with other measures of psychopathy, such as the Psychopathic Personality Inventory and Self Report Psychopathy Scale-III (Lynam et al., 2011), as well as strong concurrent validity with measures of aggression, antisocial behavior, and substance use and abuse in undergraduate populations (Wilson et al., In Press). Thus, the EPA is both a reliable and valid assessment tool that can be used to measure psychopathy.

The lies told by individuals will also be measured in this research study. Using a 37-item scale originally created by Phillips et al. (2011), lies will be measured across six different subcategories found to relate to personality. These subcategories are Avoidance, Concealment, Interpersonal Ploys, Gain, Social Enhancement, and Verbal Lies. Factor analytic results suggest these subcategories are captured in two factors – Self-Gain/Impression Management and Disclosure. Lies told for Self-Gain/Impression Management are those told to control the opinions of others. Lies told for disclosure are told for the purpose of avoiding telling others pertinent information.

The personality traits linked to lying are deliberateness, extraversion, Machiavellianism, neuroticism, responsibility, risk-taking, self-monitoring, and sincerity. These personality traits were found by the creators of the original study (Phillips et al, 2011) to be related to lying. Both Correlational Analysis and Structural Equation Modeling demonstrated the relationship between the aforementioned personality traits and lying. These personality traits and characteristics reflect a commonly held research finding regarding deception; people typically lie about themselves instead of others and their primary motives for lying are self-serving (DePaulo et al., 1996). Although some of these traits are conceptually related to psychopathy (e.g., Machiavellianism),

no study to date has examined how specific psychopathic traits are related to the different kinds of lies. This study will explore these relationships.

In addition to the subcategories of lies mentioned above, research participants will be asked questions surrounding how often they lie, to whom they lie (e.g., friend, significant other, boss, stranger), and the motivations behind their lies. Additionally, in the tradition of Ekman (1991), the pleasure individuals experience from lying will be explored. Previous research indicates that individual motivations for lying differ based on measured levels of psychopathic traits in forensic populations (Spidel et al., 2011). The degree to which individuals lie to obtain rewards, heighten self-presentation, and for the enjoyment of lying, (known as “duping delight”), has been found to be mediated by individual levels of psychopathic traits in youth offenders (Spidel et al., 2011). Spidel and colleagues found that levels of psychopathic traits in juveniles were related to motivations such as lying to obtain rewards, presenting the self in a positive manner, and duping others. The present study will expand upon this research and explore the relationships between specific psychopathic traits, the frequency of lying, to whom individuals lie, and the motivations for lying.

Organization of the Present Study

This introductory chapter provides a general overview of the topics that will be explored in the current study, as well as potential research implications. Chapter 2 will explore previous research in the areas of psychopathy, deception, and how the two have previously been intertwined and related to one another. Following a brief introduction, the clinical and research origins of psychopathy will be explored. Deceptive behavior and lying as it has been studied across disciplines will then be covered. The chapter will conclude with a discussion of the relationship between psychopathic traits, pathological lying, and deception. This discussion will

segue into the rationale and conceptualization of the present study. Chapter 3 will be a discussion of the data, research methods, and analytical approach behind the study. Chapter 4 will be a presentation of the results of the statistical analysis focusing on the both the correlations between specific psychopathic traits and specific types of lying/deceptive behavior as well regression analysis focusing on the relationships between categories of lying/deceptive behavior and psychopathic personality traits. Finally, Chapter 5 will provide a discussion of the key findings of the study, suggestions for future research, forensic implications, and limitations of the current study.

Chapter Two:

Literature Review

In this chapter, the literatures on psychopathy, lying, and lying among psychopathic individuals will be covered. The section on psychopathy will focus on how it is defined and measured, and its relationship to antisocial behavior in general. There will also be a discussion of the multidimensional nature of psychopathy.

This review will be followed by a review of the deception literature, including coverage of the different motivations of lying. There is evidence that not all lies are the same in the sense that the objectives of lies can differ markedly. Equally important, to whom an individual lies, also varies. Some individuals lie primarily within close, intimate relationships. Others lie to strangers more frequently. Still others demonstrate a penchant for lying across multiple contexts. Although scant, the literature that simultaneously examines lying among psychopathic individuals will be covered. It will be shown that despite what we know about lying among those higher in psychopathic traits, much remains to be learned to effectively bridge these literatures.

Psychopathy

While psychopathy is principally a psychological/psychiatric construct, it is not a psychiatric diagnosis or simply a construct examined only among psychologists and psychiatrists. Criminologists (DeLisi, 2009; Jones & Miller, 2012) too have studied this construct and noted its importance for the field of criminology (DeLisi, 2009; Jones, Miller, & Lynam, 2011). Considering the vast amounts of incarcerated individuals in our country at the

present time, a basic understanding and awareness of the construct of psychopathy is helpful to criminal justice practitioners and criminologists alike, as there is little question they will be seeing or researching individuals with this disorder at some point in their careers.

In order to understand the concept of psychopathy, it is necessary to explore how this concept has been measured over the years. That is, the conceptualization and measurement of psychopathy have evolved hand-in-hand. Importantly, some have argued that measurement and construct should not be conflated (Skeem & Cooke, 2010). Thus, what follows is a review of some of the most influential conceptualization of psychopathy, with a focus on different measurement strategies that have been employed. The review begins with the seminal work of Cleckley (1976) in which the original conceptualization of psychopathy is explored. Hare's ground-breaking work in creating the PCL and later the PCL-R to measure the construct of psychopathy follows. After Hare's conceptualization, and subsequent refinement, a discussion of psychopathy in the context of the Five Factor Model is presented. Finally, the Lynam et al.'s (2011) Elemental Psychopathy Assessment is introduced and discussed.

Some of the earliest work on psychopathy and the psychopathic individual came from the work of Cleckley (1976), and the seminal work, *The Mask of Sanity*. Within his study of psychopathy, Cleckley painted a picture of an individual who was seemingly unencumbered by the emotional hang-ups and moral thought processes of the average individual. To the layperson, this individual might have appeared normal, somewhat quirky, or even highly extroverted, intelligent and fun to be around. In reality, this individual was deeply pathological, and displayed a mask or façade to make others believe that he/she possessed normal human characteristics or emotions such as empathy, and/or a conscience. Cleckley described an individual who was deceptive in social exchanges and unable to maintain long-term interpersonal relationships.

Based on his observations, he suggested 16 criteria were characteristics of psychopathic individuals. These characteristics can be seen below side by side with Hare's later conceptualization of psychopathy.

Following the work of Cleckley, Robert Hare (1980) began to research the concept of psychopathy in greater detail, focusing primarily on psychopathy in the criminal population. He was interested in developing a measure that operationalized the construct of psychopathy. Based on the sixteen criteria originally set forth by Cleckley (1976), Hare used clinical interviews and case history data to assess criminals. His initial efforts led to the development of a 22-item scale that can be seen below next to Cleckley's criteria. Conceptual overlaps between Cleckley and Hare are combined into Column 1 in the chart below. Column 2 are features only conceptualized by Cleckley, and Column 3 features only found by Hare

Table 1: Comparing and Contrast Cleckley and Hare

Cleckley and Hare	Cleckley Only	Hare Only
Glibness or Superficial Charm	Absences of delusions and other signs of delusional thinking	Previous diagnosis of psychopathy or similar
Conning/lack of sincerity	Absence of nervousness or other psychoneurotic manifestations	Egocentricity/grandiose sense of self worth
Lack of remorse or guilt	Unreliability	Proneness to boredom/low frustration tolerance
Callous/lack of Empathy	Poor judgment and failure to learn by experience	Pathological lying and deception
Lack of affect/emotional depth	Specific loss of insight	Parasitic Life-style

Table 1 Continued

Cleckley and Hare	Cleckley Only	Hare Only
Promiscuous sexual relations	Unresponsiveness in general interpersonal relations	Short-tempered/poor behavioral control
Lack of realistic long term plans	Fantastic and uninviting behavior with drink and sometimes without	Early behavioral problems
	Suicide rarely carried out	Impulsivity
		Irresponsible behavior
		Frequent marital relationships
		Juvenile delinquency
		Poor probation or parole risk
		Failure to accept responsible to own actions
		Many types of offense
		Drug or alcohol use not directly the cause of antisocial behavior

As can be seen by the twenty-two items listed above, the psychopathic individual has certain personality traits that differentiate him or her from the general population. Of particular note are the superficial charm and grandiose sense of self-worth that the psychopathic individual displays. Similar to the idea originally espoused by Cleckley (1976) regarding the superficial mask or front that the psychopath puts up to others, the psychopathic individual with his or her glibness, superficiality, and grandiose sense of self-worth might come off as socially adroit, with above average social skills (Hare, 1980; 2003). The aforementioned personality traits

temporarily hide or shield the more sinister characteristics that the psychopathic individual displays. Most notably, the deficiencies include callousness or a genuine lack of concern for the wellbeing of others, a failure to accept responsibility for one's own actions, and a tendency to blame others. Of particular interest in the current research, Hare (1980; 2003) also noted that psychopathic individuals were pathological liars. That is, such individuals lie frequently, and sometimes with little motivation other than the enjoyment one receives from duping others. Importantly, however, the relationship between psychopathy and deception has typically only been empirically assessed at a broad, superficial level.

As stated above, the most well known measure of psychopathy is the PCL and its multiple derivations (The PCL-R, The PCL-SV), originally created by Dr. Robert Hare in 1980. The first version of the PCL was developed and normed on incarcerated populations. In its original format, the PCL involved two independent observers assessing the twenty-two items, believed to be related to psychopathy (see above) on male prison inmates. Inmates were rated on a three-point scale for each of the twenty two items on the checklist, with zero indicating that the item did not apply to the inmate in question, one indicating that some uncertainty existed as to whether or not the item applied to the inmate in question, and two indicating that the item definitely applied to the inmate in question (Hare, 1980). The scores on the assessment were then summed to give each individual inmate a psychopathy score. Scores that could be obtained on the checklist ranged from 0 (not psychopathic at all) to 44, the latter score which indicated the presence of psychopathic traits on each of the twenty-two items.

Eventually, two items were dropped from the PCL (antisocial behavior due to substance use and prior psychopathic diagnosis) (Hare, 1991). The remaining 20 items were found to have a correlation of .88 with the original PCL (Hare, 1991). Through an extensive factor analysis, a

two-factor structure was found. The first factor was found to contain the interpersonal and affective traits of the disorder, which according to Hare encompassed traits such as selfishness, callousness, and lack of remorse. The second factor contained the impulsive and anti-social behavioral traits of the disorder (Hare, 1991). Later it was found that a four-factor model also adequately described the disorder (Neumann, Hare, & Newman, 2007). The four factors that comprised this newer model were divided into the following categories: Affective (i.e. lack of remorse or guilty, shallow affect); Interpersonal, (i.e. glib, tendency to lie pathologically); Lifestyle (i.e. stimulation seeking and lack of remorse), and Antisocial (i.e. poor behavioral controls and criminal versatility) (Neumann, Hare, & Newman, 2007). Essentially, this fourfactor model split the original two factors into more distinct components. Since 1991, several hundred studies have used Hare's PCL for research purposes. In 2003, Hare created a second edition – the Psychopathy Checklist – Revised (PCL-R) – to help researchers and clinicians better integrate the volume of information available on the construct (Bishopp & Hare, 2008).

The PCL (and related versions, most notably the PCL-R) has been found to predict violence, treatment outcomes, and recidivism cross-culturally (Hare et al., 2000). While the majority of research has focused on the assessment of psychopathy using North American samples, research from other countries (e.g., England, Sweden, Spain, and Belgium) point to the efficacy of the PCL as a valid measure of psychopathy across cultures(Hare et al., 2000). While more work needs to be done regarding the use of the PCL and its many derivatives across cultures, results from multiple countries point to the strong psychometric properties of the PCL-R, and its relationship to antisocial behavior across cultures. That being said, the PCL and PCLR are problematic in that the factors are correlated with one another. Although they measure different core components, there is significant conceptual and statistical overlap between Factors

1 and 2 of the PCL-R (Miller et al., 2014). The aforementioned overlap makes it difficult to parse out which specific psychopathic traits are uniquely related to various behavioral outcomes, for example, lying (Miller et al., 2014).

The majority of studies suggest that psychopathic individuals commit crime for instrumental reasons (Cornell et al., 1996; Walsh et al., 2009). That is, the crimes of the psychopath are thought to be planned, and often violent for the purpose of obtaining personal needs and wants (Woodworth & Porter, 2002). Material needs such as money, sex, drugs, and even power are thought to motivate the psychopathic individual to commit violent acts (Cornell et al., 1996; Walsh et al., 2009). In addition to violent behavior, the psychopathic individual participates in a variety of other types of crime and analogous behaviors (e.g., theft, fraud) and various interpersonal crimes that negatively affect others in some manner).

In a 2012 study, Kimonis and colleagues explored the relationship between substance use disorders and psychopathic personality traits. Using a sample drawn from a population of juvenile offenders, it was found that individuals who scored high on psychopathy also scored high on substance use and abuse disorders. These findings echo previous results dating back to Cleckley's (1976) finding that substances (specifically alcohol) play a significant role in the life of the psychopathic individual. Moreover, the relationship between substance abuse and psychopathy appears to be most strongly related to the antisocial factor (Taylor and Lang, 2006).

Similar to previous research linking psychopathy and substance use and abuse, literature exists examining the relationship between psychopathy and risky sexual behavior. Historically, a variety of traits are related to risky sexual behavior. These traits include high sensation seeking, high extraversion, low agreeableness, and low conscientiousness (Fulton et al., 2014). The same traits that explain risky sexual behavior also are related to the higher order personality construct

of psychopathy (Gaughan et al., 2009). While the relationship between risky sexual behavior and psychopathy has not been frequently explored, the few research studies that have been conducted in this area find that psychopathic personality traits contribute to the tendency to engage in risky sexual behaviors in both incarcerated (Richards et. al, 2003) and non-incarcerated individuals (Fulton et al., 2010). These findings support the general idea that the behaviors of the psychopathic individual mirror those of the general offender, only in excess.

A relatively new manner in which psychopathy is being conceptualized and measured has focused on the Five Factor Model of personality. This model of personality conceives of personality as a set of five higher order factors (Costa & McRae, 1992; Costa & Widiger, 2002). The five higher order factors from the Five Factor Model (FFM) that are used to describe personality are Openness to experience (O), Conscientiousness (C), Extraversion (E), Agreeableness (A), and Neuroticism (N). Widiger and Lynam (1998) have argued that the FFM can capture the traits denoted in the PCL, with Agreeableness and Conscientiousness representing the most consistent relationships with psychopathy. Therefore, psychopathy can be validly conceptualized and measured by the FFM. Typically, individuals who are higher in Extraversion and Openness and lower in Agreeableness and Conscientiousness are more likely to be psychopathic (Miller & Lynam, 2003). Neuroticism, the fifth factor of the Five Factor Model, can go either way in regard to psychopathy. In other words, individuals who are classified as psychopathic have varying levels of Neuroticism and are not characteristically high or low.

Although traditional measures of the FFM have been used in previous research to assess psychopathy (Miller et al., 2011), this approach might not be the best one. Specifically, the FFM was designed to measure personality traits among the general population. As such, it might not be able to capture the more pathological variants of traits that characterize severe

psychopathology, such as psychopathy (Walton et al., 2008). In other words, because the FFM was designed to explain personality generally, and not psychopathology specifically, it might not capture important nuances at the lower and higher ends of the spectrum.

Lynam's Elemental Psychopathy Assessment (2011) was designed to overcome these issues, as it relates to psychopathy specifically. The EPA is a 178-item self-report inventory of psychopathy based on previous empirical work that examined psychopathy from the perspective of the FFM (Miller et al., 2011). The model calculates a total psychopathy score and is comprised of 18 subscales. Of these subscales, six come from the FFM construct measuring Agreeableness, which measures concepts such as manipulation and arrogance. Six additional subscales come from the FFM construct explaining Neuroticism, which encompasses categories such as unconcern and angry hostility. The last six subscales come from the FFM constructs of Conscientiousness (measuring concepts such as rashness,) and Extraversion (measuring concepts such as coldness and dominance). Initial psychometric studies point to the validity of the EPA. Using a sample of students from a Southeastern university, Miller et al. (2011) found the majority of the EPA subscales to have both strong convergent and discriminant validity with the domains of the FFM from which they were derived. Additional findings point towards angry hostility and warmth being traits that are related to the primary FFM domain of Agreeableness.

A table featuring the 18 subscales of the EPA is as follows:

Table 2: EPA Subscales

Unconcern	Anger-Hostility	Self-Content
Self-Assurance	Urgency	Invulnerability
Coldness	Dominance	Thrill-Seeking
Distrust	Manipulation	Self-Centered
Opposition	Arrogance	Callousness
Disobliged	Impersistence	Rashness

Most salient about the EPA and the findings stemming from Miller et al. (2011) is the extent to which they converge with other well known, and more frequently used measures of psychopathy. Based on self-report data, total EPA scores in the Miller et al. study manifested strong negative correlations with Agreeableness and small-to-moderate negative correlations with Conscientiousness. These findings are similar to those displayed in the original PCL (Skeem et al., 2005), as well as other frequently used self-report measures (Derefinko & Lynam, 2006). The consistent finding that the psychopathic individual's interpersonal interactional style is one characterized by aggression, manipulation, callousness, and nonconformity with social mores, values, and norms, was supported in the construction of the EPA (Miller et al., 2011). Thus, this new conceptualization of psychopathy, based on specific traits derived from the FFM, is a valid way of understanding and measuring this disorder.

More recent research on the EPA has found that it has the ability to breakdown individual levels of psychopathic traits completely separate from the PCL and the Five Factor Model (Miller et al., 2014). Moving away from the Five Factor Model, research indicates that the EPA loads on to four distinct factors that are related to, but separate from, the FFM (Miller et al.,

2014). These four factors are Antagonism, Emotional Stability, Disinhibition, and Narcissism. This new development in research outlines the individual relationships between psychopathic traits and different behavioral indices related to the disorder. In the current study, the relationship between the aforementioned traits or factors and lying will be parsed out for the purpose of determining which unique, individual trait drives the overarching relationship between psychopathy and lying.

Additionally, the EPA is directly linked to the SRP-III (Miller et al., 2014). Originally created as a Self-Report Instrumental Correspondence to Hare's PCL (1980), the SRP III is a 64item test on a Likert Scale that measures psychopathy across four factors (Paulhus et al., in press). Results indicate that EPA total and factor scores have strong convergent validity with the SRP-III. It was also found that the interpersonal and affective factors measured by the SRP-III were uniquely related to EPA Antagonism. Furthermore, the more erratic/anti-social components of psychopathy, as measured by the SRP-III, were found to be strongly uniquely related to the EPA factor measuring Disinhibition. These findings further indicate the efficacy of the EPA in measuring psychopathy, and further validate it as a comparable, if not more effective measure than previous instruments designed to measure the construct. While it is hypothesized that the lying is more closely related to the interpersonal factor of psychopathy, the EPA does not cleanly capture the relationship between psychopathy and lying. The current study will further clarify the relationship between psychopathy and deception and pinpoint where within the EPA this relationship can most effectively be captured.

When using the EPA as a research tool it is essential to have a greater understanding of the empirical definitions of the four primary factors used within the measure. These four factors are defined as follows. *Antagonism* is defined as the level in which one is hostile/outwardly

aggressive towards others. An example of Antagonism is a boss at a work place who is highly aggressive and vindictive to his underlings. *Emotional Stability* is defined as the degree to which one's emotions remain even or lack lability. An emotionally stable individual is one who maintains an even keel regardless of situation. *Disinhibition* is the extent to which one is uninhibited/willing to try new things, and is similar to the concept of fearlessness in analogous measures. An individual with a high level of Disinhibition is eager to try new and different activities and not overly reserved. Finally, *Narcissism* is the level to which one is selfcentered/lacks concern about the wants and needs of others. (Lynam et al., 2011). An individual with a high level of Narcissism only cares about oneself and is completely unconcerned with the wants or needs of others. Some politicians clearly fit this description

The preceding section was designed to introduce to readers the construct of psychopathy, and demonstrate the link between this construct and antisocial behaviors. As suggested throughout, the conceptualization and measurement of this disorder have evolved over time, and have been intricately and irrevocably linked. Although there are reliable clinical measures of psychopathy (e.g., the PCL-R), it was also argued that the FFM is a valid means of conceptualizing this construct. It was also discussed above that a key feature of psychopathy is pathological lying. Before the discussion focuses on the known and suspected links between psychopathy and lying, it is necessary to review the construct of lying in some detail.

Lying and Deception

Previous research on lying focuses on several important categories. Areas in which lying has been studied and are of interest/relevance to the current study are frequency of lies told, the individuals to whom lies are told, and motivations of lying on the part of the individual telling the lies. A more balanced and in-depth understanding regarding lying in these areas will help shed light on the relationship between deception and psychopathy, and the interplay between these two constructs.

Frequency of Lying

The frequency with which individuals lie has been examined in several studies. Prior to examining lying frequency, it is important to briefly define lying. While there is no consensus as to how to exactly define lying or a lie itself, the commonly held empirical definition of lying is making a known false statement to another person with the intention that the other person believes it to be true (Isenberg, 1973; Primoratz, 1984). Based on this conceptualization, researchers have been able to study specific constructs of lying such as the frequency of which lies are told.

Previous research runs the gamut in regard to estimating the frequency in which lies are told. Some studies report lying to be an infrequent activity. For example, Halevy et al. (2014) found that the majority of individuals do not report lying at all, and that those individuals who do lie were speculated as having psychopathic personality traits or cheating tendencies. A survey conducted by Roig and Caso (2005) found that 72% of college students lied an average of one time within their four-year academic career. In a 2004 study, Jensen and colleagues found that teenagers lied to their parents once a year.

Other studies suggest lying is more common. Ennis, Vrij, and Chance (2008) found that individuals lied between three to five times on average per week. Some studies report lying to be a daily endeavor, with approximately one or two lies being told daily (DePaulo et. al. 1996; Serota et al., 2010). Feldman, Tomasian, and Coats (1999) found that participants lied over 50% of the time in a videotaped task conducted in a laboratory setting. An analysis by Hancock, Toma, and Elison (2004) revealed that 80% of online daters lied at least once within online interaction regardless of time frame. Thus, it would appear that lying is quite common according to many studies that have examined this behavior. It is important to note that the method in which lying was measured differed in each of the aforementioned studies. While the above discussion presents previous research done on the frequency in which lies are told, one must be cognizant of the various ways in which the frequency of lies told can and has been measured.

While some research indicates that lying is fairly common, there appears to be limited empirical evidence that some individuals lie more than others. Serota and colleagues (2010) found 60% of people told no lies at all, and that half of all lies told were told by 5% of the population for a total of 1,646 lies. In other words, each individual who happened to lie did so once or twice a day. There is very little empirical evidence that has focused on who such individuals are. Dike et al. (2005) found that a small group of pathological liars with significant psychopathology lie a substantial amount of the time. Specifically, those individuals with personality disorders ranging from Antisocial Personality to Borderline Personality Disorder, as well as other diagnoses such as Factitious Disorder and Ganser's Syndrome, demonstrated a high propensity for excessive lying. Evidence that some individuals, specifically those with unique psychopathology, lie more than others is clearly subject to differences in measurement and might in fact be simply a methodological artifact.

Although not focused on explaining these prolific liars, some studies are suggestive as to the kinds of people who might be more prone to lying, especially in regard to personality traits. Gozna, Vrij, and Bull (2001) found that individuals do not lie on a regular basis, but that when they do lie, specific personality traits drive the lies being told. For example, the personality constructs of manipulativeness, impression management, and sociability were related to lies told both in everyday life and high stakes scenarios. McLeod and Genereux (2008) found personality traits such as assertiveness and Machiavellianism influenced whether or not an individual lied on a regular (daily) basis.

Some of the research presented in this section suggests that lying is quite common, and there might be some individuals who lie more frequently than others. Moreover, there are some personality traits that appear to be particularly related to lying. However, no studies to date have explored the relationship between specific psychopathic personality traits and frequency of lying.

To Whom Individuals Lie

In the previous section, it was partially noted that lying is a frequent behavior. Also important is that there are a number of individuals who are targets of lying. Lies are told across relational distances. Individuals lie to those with whom they are familiar, and lie to individuals who are not as well known. Ariely (2012) asserted that we lie to everyone, especially the person to whom we are closest and most familiar with—ourselves. Lies are deeply engrained in human behavior and interaction, and are often told unwittingly to others and the self (Ariely, 2012). The individual deceiving his or herself may or may not recognize that he or she is even doing so (Ariely, 2012). However, the lies we tell are not only to ourselves. Lies are often told to those with whom we have close, personal relationships.

Engels et al. (2006) viewed lying in the context of family, and found that children frequently lie to their parents. Similarly, DePaulo & Kashy (1998) found that individuals lie more frequently to those they know than to strangers. Several studies have examined lies that are told within romantic relationships. Ennis, Vrij, and Chance (2008) found lies are frequently told to friends and romantic partners, and such lies can be quite serious in nature. Metts (1989) found that people lie in close relationships to individuals whom they are dating and to whom they are married. However, because romantic partners are very familiar with one another, lies might be more easily detected. Miller, Mongeau, and Sleight (1986) suggested that lies are told, or at least detected, more frequently in relationships where individuals know one another more intimately.

The reasons why lies are so often told in the context of romantic relationships are less clear. Tooke and Camire (1991) saw lying frequency as a pattern in the context of interpersonal relationships when it comes to mating. That is, romantic partners may be the targets of lies because individuals are trying to attract and maintain a romantic partner. Other lines of research suggest that there are individual characteristics that are at the root of lying within romantic relationships. Jang, Smith, and Levine (2002) saw frequency of lying in the context of a relationship as a pattern relating to attachment style. For instance, individuals with a more dysfunctional attachment style may have greater difficulty developing close relationships, and this could “free” them, to be more willing to lie to their partners. They also suggested that personality traits, such as low anxiety and high argumentativeness, relate to lying to others in romantic relationships.

Although lies are often told in the context of close, personal relationships, lying is not limited to such relationships. Although they focused more on lies within romantic relationships, DePaulo and Kashy (1998) and Ennis et al. (2008) also indicated that lies are told to strangers.

Kashy and DePaulo (1996) noted that individuals frequently lie to those in power or with a higher social status. Other research has focused on lying in the workplace. Grover (2010) found that individuals lie to bosses, peers, and subordinates on a regular basis in workplace situations. Additionally, Umphress et al. (2009) found that lies occur in multiple workplace contexts and are told across the spectrum, including co-workers, middle management, and higher-level executives.

Further research indicates that certain individuals lie to the majority of people to whom they come into contact just because they enjoy lying (Ekman, 1991; Ford et al., 1988; Dike, Baranoski & Griffith, 2005). Additional research supports the notion that there is a small group of individuals who are responsible for the majority of lies, and such individuals lie to the majority of people with whom they come in contact (Serota, Levine, & Boster, 2010). Very little previous research has tried to link specific personality traits to this small group of prolific liars. However, it would appear reasonable to think that psychopathic traits may explain this excessive pattern of lying. After all, psychopathic individuals are a small group (in the population and in forensic settings), engage in a wide variety of criminal and antisocial activities, and do so for extended periods of time. It may also be the case that such individuals demonstrate a pattern of excessive lying, and to a wider variety of targets (e.g., romantic partners, co-workers, acquaintances).

Motivations for Lying

The aforementioned research partially suggests that lying is common, and there are varied targets of lying. These works, however, do not fully and directly capture the motivations for lying. Other researchers have more explicitly focused on motivations for lying, with some

insights into personality traits that are related to motivations. In this section, the focus will be on the most comprehensive and directly-related study that deals with motivations to lie.

Spidel and colleagues (2011), building on the works of Peticleric and Herve (1999) and Spidel (2002), suggested that there are 11 typical motivations for lying. They are as follows. Compulsive lies are those told with no particular purpose; these lies are typically not self-serving and can be self-destructive. A secretive lie is told for the purpose of concealing personal information and maintaining some sort of personal autonomy. Lies to avoid punishment are typically told for self-serving reasons and are specifically relevant to the offender population. Lies told to avoid negative evaluation are similar to lies told to avoid punishment, but are more focused on controlling others' evaluations and opinions. The previous two types of lies discussed feature significant conceptual overlap and are often difficult to differentiate.

Protective lies are those told to avoid some sort of physical punishment or consequence from others. Lies to obtain rewards are manipulative in nature and aimed toward gaining something tangible. Lies to heighten self-presentation are told for the purpose of showing oneself in the most positive light. This is specifically relevant to the offender population in seeking reduced criminal outcomes. Altruistic lies are lies told for the purpose of protecting others. In an offender population, the aim of these lies is to protect others from harm. As the name implies, lies of carelessness are those that are told impulsively and are related to individual dispositional qualities. Finally, lies within the category of duping delight are carried out for the purpose of receiving enjoyment from being able to deceive others (Spidel et al., 2011).

Although the motivations for lying identified by Spidel et al. (2011) appear to be quite comprehensive, the manner in which these motivations were created leaves something to be desired. Originally, Peticleric and Herve (1999) determined these eleven motivations in a forensic

context. Based on a combination of clinical data gathered from inmates and previous research, the typical motivations for deception in forensic populations were explored. There are several important points related to the development of these motivations that are of note. The creation of these motivations/typologies was done completely without self-report data due to issues with trustworthiness of inmates in regard to individual lying behavior (see Hare, Forth, & Hart, 1989 and Rogers et al., 1997). Additionally, the authors themselves (Peticlerc & Herve, 1999), as well as Spidel et al., (2011), cautioned that these particular motivations were solely based on forensic populations and were not exhaustive in regard to motivations for lying and deceptive behavior across the general population. While previous research (see Spidel et al., 2011) exists claiming that deceptive motivations are more diverse in a forensic population than in the general population, recent research contradicts this notion (see Phillips et. al, 2011). Thus, relying on forensic populations to study lying might lead to some limitations. A better approach would be to study lying more broadly, and other research has filled this void.

An arguably more comprehensive and less subjective approach has been taken by other researchers when trying to identify motivations for lying. Phillips and colleagues (2011) examined the underlying structure of deception and found it to be a multidimensional concept. Similar to how theorists have explored the underlying dimensions of personality using the Five Factor Model (FFM), this particular study took a lexical approach to understanding the conception of deception. Essentially, this research entailed identifying words in the English language that could be reasonably linked to lying. From here, a component analysis was conducted and in conjunction with expert evaluations of language, words were turned into measures of lying. The resulting measure can also comprehensively define the construct being studied (in this case lying/deception). Similar to the aforementioned FFM, this approach is

effective in that it comprehensively defines types of lies and individual motivations for lies, while simultaneously linking lying to the broader overarching concept of personality.

While the explicit purpose of the Phillips et al. (2011) study was not to look at motivations for lying, the results of the study provide specific information regarding such motivations. Their findings indicated that individuals are typically motivated to lie for one of two overarching reasons. One reason for lying is to achieve self-gain and a second is to avoid disclosing some type of information. Individuals typically want to present themselves to others in the best light possible, and avoid disclosing information that may jeopardize this objective. Human beings are concerned with how others see them, how they portray themselves, and what they can acquire/garner to improve their lives. The majority of lies are motivated to achieve these purposes (Phillips et al., 2011). Furthermore, individuals have been found to be motivated to lie to avoid disclosing information. Information is often withheld to avoid social consequences and/or criminal prosecution.

Several motivations that are more nuanced, and fall under the self-gain factor were identified by Phillips and colleagues. Lies of Verbal-Malice are lies of an untrue nature told explicitly to hurt another. Lies of Verbal-Trickery are defined as lies that are told to trick another to achieve some type of personal gain. Social Enhancement Lies are told to influence another's opinion of the individual telling the lie, either to gain some type of sympathy or enhance the status of the liar in the eyes of the receiver. Gainful-Misleading lies are those told explicitly to garner some type of gain from an unsuspecting other. There were also more specific motivations that fall under the Avoidance-Disclosure category. Lies of Concealment are those that purposefully leave out some sort of information to deceive others. Lies of Avoidance are those

told for the purpose of concealing information and not hurting others or the self. (Phillips et al., 2011).

Finally, there were two additional originally hypothesized categories of lies that were not found to connect to the two broader categories of lies. In an effort to comprehensively describe the work of Phillips et al. (2011), these lies are briefly discussed here. Interpersonal-ploy lies are those that are told to others to put up some sort of front, or hide something of importance. Additionally, Gainful-Falsification lies are typically those that involve taking some type of unearned credit for personal gain. The benefit received by lies of gainful falsification is most often financial (Phillips et al., 2011). Ultimately, both of these latter types of lies were removed from the analysis, as they did not reliably fit under either of the two, broad domains: self-gain or to avoid disclosing some type of information.

Some additional insights can be gleaned from the Phillips et al. (2011) study that are of relevance to the current study. Phillips and colleagues examined how some personality traits are related to different kinds of lies. Moreover, some of these traits overlapped conceptually with psychopathic traits. There were eight personality characteristics (deliberateness, extraversion, Machiavellianism, neuroticism, responsibility, risk-taking, self-monitoring, and sincerity) that were studied and ultimately connected to two broad categories of lies. At the bivariate level, the relationship between types of lies and personality traits were only correlated using the 6 subcategories of lies (Lies of: Verbal-Malice; Verbal-Trickery; Social Enhancement; GainfulMisleading; Concealment; Avoidance) and not explored using the two broader categories (SelfGain/Impression Management and Disclosure). Interesting additional findings at the bivariate level included deliberateness being negatively correlated to lies of social-enhancement,

and both responsibility and sincerity being negatively correlated to all seven subcategories of lies.

Correlations between extraversion, Machiavellianism, neuroticism, risk-taking, and self-monitoring and the seven subcategories of lies were not found to be significant. At the multivariate level, results indicated that the personality traits of responsibility and sincerity were negatively related to both lies of Self Gain/Impression Management and lies of Disclosure.

The current study draws from the underlying structure of lying/motivations of lying identified by Phillips and colleagues (2011). However, in the current analysis there will be an exclusive focus on psychopathic traits. More specifically, the relationship between the two, broad categories of lying (self-gain or to avoid disclosing some type of information) and specific psychopathic personality traits (Antagonism, Emotional Stability, Disinhibition and Narcissism) will be examined.

Individual Differences and Lying

The final area of research in need of examination is that which explores the relationship between individual personality differences and deceptive behavior. Few previous studies have looked at the relationship between specific personality traits related to psychopathy, such as impulsivity and lack of emotional affect, and linked them explicitly to deception. However, studies that look at lying and its relationship to personality characteristics have been conducted. In this section, the theoretical and conceptual reasons for studying this relationship will be reviewed. The constructs of lying found to be most closely related to psychopathic traits will also be discussed, as will previous studies that have looked at the relationship between psychopathy and deception.

Although it is not entirely clear as to why psychopathic individuals lie, it is generally believed that the lies told by individuals with this syndrome are a form of sensation seeking and are told for the purpose of bolstering self-esteem (Ford et al., 1988). It is well known and has been empirically demonstrated that psychopathic individuals both lie pathologically and seek new, exciting experiences on a frequent basis (Hare 1980). What is less well known and less frequently studied are the emotional underpinnings of the psychopathic individual and why lying seems to be a defining characteristic of individuals with this syndrome. Research indicates that individuals with a variety of psychiatric diagnoses, including antisocial, histrionic, and borderline personality disorders, as well as psychopathy, lie due to developmental, biological, social, and psychodynamic components (Ford et al., 1988). That individuals with these disorders (including psychopathy) lie to improve their self-esteem and the manner in which they appear to others (these concepts often go together) is probable.

Some research, although largely theoretical, provides rationales for why and how psychopathic traits and deception are related. An important, but infrequently studied concept relating to both psychopathy and deception is the concept of duping delight. Based on a term coined by Ekman (1991), duping delight is the idea that an individual (in this case one with high levels of psychopathic personality traits) will lie solely for the personal satisfaction of deceiving others. This concept has not widely been studied in the literature that explores psychopathy and deception. Based on the interpersonal and affective factors of psychopathy as originally identified by Hare (1980), it stands to reason that individuals high in psychopathic traits frequently engage in deception for personal satisfaction. More specifically, when discussing one item from the PCL – pathological lying – Hare indicated that psychopathic individuals

sometimes lie simply to see if they can dupe the other person. They enjoy this behavior because it suggests they are superior to others.

Millon and Davis's (1998) exploration of psychopathy in the context of ten unique personality subtypes is helpful in shedding light on the relationship between psychopathy and deception. Within their typology, Millon and Davis (1998) found that two of the 10 psychopathic personality subtypes were more closely linked to lying and deceiving others. The unprincipled psychopath is characterized by an indifference to honesty, and the ability to skillfully and charismatically deceive others. The disingenuous psychopath is pervasively deceitful to others in a variety of contexts, including the instrumental use of others for personal gain. This individual also has a tendency to scheme and deceive in close interpersonal relationships. While this model has yet to be empirically tested, it does suggest that different facets of psychopathy might be differentially related to lying.

Other lines of research have examined the empirical relationships between psychopathy (or related traits) and lying. As previously discussed, Phillips and colleagues (2011) took a lexical approach in understanding the underlying structure of lying. Beyond identifying the factors of lying, the study examined how various personality traits were related to different types of lying. It was found that sincerity and responsibility were negatively correlated with lies told for Self-Gain/Impression Manipulation and with lies told for purposes relating to Disclosure. These findings make intuitive sense with respect to psychopathy, as individuals afflicted with the disorder are typically insincere and irresponsible. Lower levels of sincerity and responsibility (two traits lacking in individuals with higher levels of psychopathic traits) ultimately led to more lies told for the purposes of Self-Gain/Impression-Manipulation and Disclosure (Phillips et al., 2011). Although not statistically significant, deliberateness, Machiavellianism, and neuroticism

were also found to be related to both overarching categories of lies in the expected directions. Deliberateness was found to be negatively correlated to each of the lying categories, while Machiavellianism and Neuroticism were found to be positively correlated. Less deliberate individuals (such as the psychopathic personality) would be more likely to lie for purposes of Self-Gain/Impression-Manipulation and Disclosure. Individuals who were more neurotic and Machiavellian were also more likely to lie for purposes of Self-Gain/Impression-Manipulation. While the aforementioned results are informative and suggestive, it is important to note that explicit links between specific psychopathic traits and lying have not been frequently examined, and no previous study has looked at a comprehensive measure of psychopathy in regard to the two factor structure of lying discussed by Phillips et al. (2011).

A study conducted by Spidel and colleagues (2011) examining the relationship between psychopathy and lying in a juvenile forensic population is arguably the most closely related study to the current research. They examined psychopathy and lying among 60 juvenile offenders from a Canadian sample. To measure psychopathy, they used the PCL: YV and a personality inventory structured from the DSM-IV (see First et al., 1997). Offender-perpetrated deception was identified by file reviewers and lies were categorized as being lies if they did not match file information and/or a videotaped interview (Spidel et al., 2011). Building upon previous work conducted by Peticleric & Herve (1999) and Spidel (2002), 11 common motivations for lying were operationally defined (which were discussed in the previous section).

Spidel and colleagues then examined how a measure of psychopathy (the PCL: YV) was related to the 11 different types of lies. Results indicated that psychopathy was most closely linked to three different types of lying: lying for self-presentation, lying to obtain rewards (monetary or otherwise), and lying for the purpose of gaining personal enjoyment, the

aforementioned duping delight (Spidel et al., 2011). These results are consistent with those found in adult populations (Spidel, 2002). Findings that individuals with higher levels of psychopathic traits are more likely to engage in duping delight are predictable, as both deception and taking pleasure in the manipulation of others are inherent characteristics of psychopathy. Duping delight can be conceived of as both a form of sensation seeking and an ego defense. These concepts fit into the psychopathic individual's need for stimulation and appearance of superiority over others (Hare et al., 1989). It is also important to note that psychopathy was not related to every motivation of lying.

The finding that psychopathy was related to the propensity to engage in deception to heighten self-presentation and obtain rewards is also noteworthy (Spidel et al., 2011). Typically, the psychopathic individual actively acts upon their environment for personal advantage. Twisting information for their own personal gain and for the purpose of enhancing their own self-esteem, psychopathic individuals are highly concerned with self-presentation and building rapport and relationships with others as a mean to achieve their own manipulative goals. Interestingly, several types of lies that one would predict to be related to psychopathy were found to be unrelated. Lies to avoid punishment, the most common of all lies in the forensic context, were not told more frequently by psychopathic individuals (Spidel et al., 2011). In addition, PCL-YV scores were unrelated to lies that fell under the compulsive, secretive, careless, avoiding negative evaluation, protective, and altruistic motivations.

The findings gleaned from this study are the most relevant to the current analysis, as they show psychopathy is related to some types of lies, but not others. What the existing literature notably lacks is how specific psychopathic traits might be differentially related to different motivations for lying. The current analysis addresses this void.

Current Study

The results of studies described in this section leave the door open for further exploration and examination. These unexamined areas will be touched upon in the current study. At the present time it remains unclear as to which factors of psychopathy are uniquely or most strongly related to lying. Previous examinations of the relationship between these two constructs have only looked at psychopathy as a singular construct and have not explored the different factors that underlie the syndrome. This is important to understand, as most indices of psychopathy are an amalgam of more specific traits (Lynam et. al, 2011). A more in depth understanding of these specific constructs will help better understand why psychopathic individuals are such prolific liars. The current study will also help reveal which individual personality traits are most related to lying, even outside the scope of “full-blown” psychopathy. While it is usually assumed that the interpersonal and affective dimensions of psychopathy account for deceptive behavior, the direct relationship between facets of psychopathy and lying has not been previously examined. It could very well be that the behavioral and antisocial components of the disorder account for unique variance in lying.

The current study will be able to identify which EPA traits are most closely linked to the interpersonal and/or affective domains of psychopathy. The current study will elaborate the relationships between traits embedded in the behavioral or antisocial domains of psychopathy that might be linked to lying. It will also further parse out what is already known about lying and deception. Currently little is known about lying as it relates to the interpersonal and affective facets of psychopathy. This study will further elaborate on this relationship. Additionally, these findings will hopefully shed some light on why lies are told generally, not just among psychopathic individuals. Ultimately, these findings likely will assist mental health and forensic

experts in identifying specific traits associated with deception. In addition, the findings will reveal the types of lies that are more common among those with elevated psychopathic traits. Mental health and forensic professional's effectiveness in accurately assessing the information they are told is important in many contexts, not the least of which is in truth assessment. These types of errors can exert large tolls on everyone from the interview subject to society at large (Spidel, et al., 2011).

Summary

As previously stated, the aim of the present study is to understand the relationship between specific psychopathic traits, motivations for lying, frequency of lies told, and targets to whom lies are told. The study also aims to determine the strength and directionality of the relationships being explored. To study this phenomenon, a questionnaire to be described below has been created that includes validated measures of psychopathy and motivations for lying. In addition, specific scales were created to assess the frequency of lying, as well as the variety of individuals to whom an individual lies.

It is expected that all research participants will lie. However, it is also expected that psychopathic traits will be related to lying more frequently and to lying to a greater variety of individuals. It is also suspected that some psychopathic traits (as measured by the EPA) might be more strongly related to different motivations for lying. More specifically, it is expected that facets more closely linked to the interpersonal and affective factors of psychopathy will be more highly related to lying than the behavioral and antisocial factors. These analyses are exploratory in nature. While it is expected that the behavioral and antisocial domains of psychopathy exert unique relationships with lying, this might not wind up being the case.

The EPA provides an overall score of psychopathy; however, the more novel component of the current analysis is to assess what specific components of psychopathy are most related to various indices of deception. Recall, the EPA measures the following factors: Antagonism, Emotional Stability, Disinhibition, and Narcissism. Although there might very well be specific factors that are related to specific deception outcomes, there is insufficient prior work to provide definitive hypotheses. As such, the following hypotheses will be tested in regards to these factors:

Hypothesis 1: Antagonism (a), Emotional Stability (b), Disinhibition (c), and Narcissism (d) scores will be positively related to the number of lies told.

Hypothesis 2: Antagonism, Emotional Stability, Disinhibition, and Narcissism scores will be positively related to the variety of individuals to whom an individual lies.

Hypothesis 3: Antagonism, Emotional Stability, Disinhibition, and Narcissism scores will be positively related to the telling of Self-Gain/Impression-Manipulation lies.

Hypothesis 4: Antagonism, Emotional Stability, Disinhibition, and Narcissism scores will be positively related to the telling of Self- Disclosure lies.

Note that the above four factors, Antagonism, Emotional Stability, Disinhibition, and Narcissism are empirically defined in the literature review (see page 25), and below in the methods section.

Chapter Three:

Methodology

The current study aims to extend the limited body of knowledge exploring the relationship between levels of psychopathic personality traits and lying/deception. As mentioned in the literature review, while the tendency to lie pathologically has been found to be related to the psychopathic personality, little previous research has focused on the specifics of this relationship and how individual psychopathic traits relate to various types of lies and deception. A relatively new measure of psychopathy will be used (i.e., the EPA), as it provides the greatest degree of specificity of psychopathic traits. That is, it can parse psychopathy into its most basic constituent elements, which allows for a nuanced assessment of which aspects of psychopathy are related to motivations for deception as well deception frequency and to whom lies are told. Likewise, lying/deception was assessed in a detailed manner. The analysis includes frequency, targets, and motivations of lying. The sample was comprised of college students.

Procedures and Participants

Participants were recruited from an introductory criminology class at a large, southeastern university in the United States. As part of their course credit for their introductory criminology class, students were asked to participate in research for the purpose of better understanding the research process. On their course syllabus in their introductory criminology course, students were given information regarding participating in research as part of their course requirement. Students were provided with information to access SONA, the online system that

provides access to participate in research. If students were uninterested in or unwilling to participate as research subjects, they had the opportunity to complete a non-research alternative to acquire course credit (typically a paper critiquing a criminological research article).

To be eligible to participate in the study, students had to be enrolled in the introductory course at the aforementioned large southeastern university and be between the ages of eighteen and eighty. Students participated in the research study in the fall of 2013 and accessed an online questionnaire that took approximately forty-five minutes to complete. Upon completion of the survey, the student's instructor was informed that the student participated in the research survey and the student was awarded credit for participating.

As part of the online assent agreement, students were assured that their responses were anonymous and used solely for research purposes, and accessed only by members of the research team. The SONA website that was accessed by the students was linked with the Qualtrics Website, a type of survey software in which the survey was housed. Participant information was encrypted so that participant responses were anonymous. This research design was approved by the university IRB. Two hundred ninety one (291) participants completed the survey; 18 cases were subsequently eliminated due to issues with responses being overly influenced by social desirability. The final sample size was 273.

Measures

The various measures used in the study are described below. The Independent Variables used within the study were the four overarching scales or factors from the EPA; they are Antagonism, Emotional Stability, Disinhibition, and Narcissism. Control Variables used in the study were age, ethnicity (nonwhite vs. white), and gender. Seven dependent variables were used

in the study: Frequency of Lying, Targets of Lies (Variety), Targets of lies (severity), Duping Delight, Disclosure, and Self-Gain/Impression Management.

Elemental Psychopathy Assessment (EPA)

Created by Lynam et al. (2011), the EPA is measured using a five-point Likert scale with response options ranging from disagree strongly (1) to agree strongly (5). Within the EPA, participants are asked a variety of questions regarding their behavior for the purpose of assessing the amount of psychopathic traits they possess. The EPA was constructed based on the Five Factor Model (FFM) of Personality for the purpose of assessing maladaptive variants of 18 FFM traits that have previously been found to have a robust relationship with psychopathy (Lynam et al., 2011). The 18 FFM traits included in the EPA have been subjected to factor analysis, with four factors emerging – Antagonism, Emotional Stability, Disinhibition, and Narcissism (Miller et al., 2014). To clarify some confusion with the Emotional Stability measure it is important to note that Emotional Stability is comprised of 3 subscales those being unconcern, self-content, and invulnerability. To some scholars the aforementioned measures represent low fear, social boldness, and the limited range of emotion of psychopathic individuals.

To reiterate, Antagonism refers to the degree to which an individual tends to incite or bring out strong emotions in others. An example of a question measuring Antagonism is as follows: “People who know me know not to make me angry.” Emotional stability taps into the extent to which ones emotional state remains even keeled and whether or not, and to what extent, it fluctuates. An example of a question measuring Emotional Stability is, “I can remain calm when other people might panic.” Disinhibition describes the extent to which an individual displays thrill-seeking behavior and novelty. An example of a question designed to measure

Disinhibition is, “I am a bit of a daredevil.” Finally, Narcissism refers to the self-centeredness of an individual and the extent, or lack thereof, in which the person regards and/or actively considers the feelings, wants and needs of others. A question designed to measure Narcissism looks as follows: “I will someday make a big name for myself.”

The traits explored within the context of this model are drawn from a variety of perspectives on the relationship between psychopathy and the FFM, including empirical correlations, expert ratings, and translations of extant assessments. The EPA has been found to be internally consistent. The mean convergent validity of the EPA facets was strongly related to that of the original FFM facets from which it was derived ($r=.66$). When summated, the EPA was also found to be strongly correlated (mean $r=.81$) with three commonly used psychopathy measures (i.e., the NEO-PI-R, LSRP, and SRP-III; Lynam et al., 2011). Additionally, the EPA was found to have a high level of internal consistency with a Cronbach’s Alpha of .902. A table listing the 18 facets of personality measured by the FFM and the complete 178-item EPA measure used in the current research study can be seen in Appendix A.

While the EPA is a relatively new measure of psychopathy, the findings stemming from Miller et al.’s (2011) study provide support for the construct validity of the EPA as a measure of psychopathy. As the EPA can get at specific facets of psychopathy better than any other selfreport measure, its use in this research study will allow individual personality traits related to psychopathy to be directly linked to frequency of lying, targets of lies (i.e., to whom individuals lie), and the motivations for lying. The present study will be one of the few studies to use the EPA to measure psychopathic traits, and the first to connect psychopathic traits to lying.

Some readers might be concerned that studying psychopathy among college students is problematic, as few (if any) will have clinically significant levels of psychopathy. In other words,

this population may inherently have some limits in the extent to which they possess or manifest psychopathic traits. However, previous research indicates that the basic personality structure of psychopathy, neuro-cognitive processing deficits, and externalizing behaviors that characterize the disorder display themselves similarly in forensic and non-forensic populations (Falkenbach et al., 2007; Lynam, Whiteside, & Jones, 1999; Ross et al., 2004). Therefore, relying on a non-institutionalized sample is acceptable.

Multidimensional Deception Inventory (MDI)

This instrument is a 35-item survey measuring lying across eight different facets. Previously unnamed by its original creators, the scale will be referred to as the Multidimensional Deception Inventory for the purposes of this research study. Using categories originally created by Phillips et al. (2011), the MDI measures whether or not an individual has or would lie across eight different facets. Response categories range from never have/never would lie (1) to frequently have or frequently would lie (4). This measure was previously validated on a college student sample using structural equation modeling (Phillips et al, 2011).

The MDI in its present form was created over three separate studies. The first involved a lexical search, novice ratings, and expert ratings for the purpose of developing the nine categories of deception presently used in the questionnaire. The second involved developing questions to assess categorical uses and internal consistency and was administered to the aforementioned college sample. Finally, an underlying structure for the deception data was hypothesized by the original authors and was re-administered, and analyzed using structural equation modeling. The names of the lying scales included within the study are: Avoidance, Concealment, Interpersonal-Ploy, Gainful-Falsification, Gainful-Misleading, Social-

Enhancement, Verbal-Malice, and Verbal-Trickery. These eight scales ultimately load onto two factors: Self-Gain/Impression-Manipulation and Disclosure. Psychometric tests revealed that the MDI was internally consistent with a Cronbach's Alpha value of .926.

Self-Reported Deception Scale

To measure frequency of lying a questionnaire was used that is comprised of six items measured along a four-point Likert scale with response options ranging from never have done (1) to frequently have done (4). This portion of the survey was created specifically for this study due to the lack of existing standardized measures focusing on individual frequency of lying. This scale measures (1) The frequency of lies told by study participants and (2) the variety of targets to whom participants told lies. Five out of the six questions focus explicitly on frequency of lies told to specific individuals. Frequency of lies told to friends/family members, boss or professors, law enforcement, romantic partners, and strangers are assessed within the context of this questionnaire. The sixth question focuses on the frequency of lies told for personal enjoyment (referencing the aforementioned duping delight).

This scale produces both the cumulative frequency of lies told and smaller sub frequencies of lies told to specific targets. The self-reported deception scale was found to be internally consistent with a Cronbach's Alpha value of .767. The self-reported deception scale is located in Appendix A.

Duping Delight Scale (DDS)

A duping delight scale was created specifically for this study. Based on the concept developed by Ekman (1991), it assesses levels of enjoyment one receives from lying. The DDS was created explicitly for the current research study due to the there being no previous measure

in existence to explore this construct. This questionnaire was created by the primary investigator by researching situations in which an individual may gain some enjoyment out of lying. The questionnaire is comprised of 10 items using a four-point Likert scale, with responses options ranging from never (1) to frequently (4). Psychometric tests revealed the DDS to have a Cronbach's Alpha .904. The duping delight questionnaire can be found in Appendix B.

Demographic Questionnaire

Several questions ask about demographic characteristics of the participants. These include age (measured in number of years) and sex (0=female; 1 = male). Race and ethnicity data were also collected. The categories include: White, Hispanic, Black, American Indian, Native Hawaiian/Pacific Islander, Asian, and "other." While the data for the various ethnic groups are presented in the result section, for the purposes of correlational and regression analyses, the ethnicity variable was coded as White (solely comprised of individuals who identified as White) vs. Non-White.

Marlowe Crowne Social Desirability Scale

After providing the requisite demographic information, participants completed a version of the Marlowe Crowne Social Desirability Scale (Ballard, 1992). This measure assesses whether the participant demonstrates a tendency to provide responses in a socially desirable manner. The purpose of including this measure was to assess the integrity of the responses. The data of participants who scored high on this measure (± 2 standard deviations) were not included in the analyses. The abbreviated version of the Marlowe Crowne Social Desirability Scale is comprised of 11 items that are measured as true or false (Ballard, 1992). This version of the Marlowe

Crowne Social Desirability Scale has been validated as a measure of social desirability and evinces psychometric properties that are superior to the original version of the measure.

Analytical Plan

All analyses were computed in SPSS version 21. The analytical plan for the research study was as follows. First, data analysis was conducted to determine the psychometric properties of the scales being used in the research study. This included the means, standard deviations, and internal reliability of the scales. In addition to this information, demographic information from the sample was analyzed. Following the analysis of the psychometric properties of the scales, zero-order correlations were examined to assess the relationships between psychopathic traits, frequency of lying, variety of persons lied to, and motivations for lying (drawn from the MDI and the DDS).

The specific correlational analyses between the various measures are outlined in the hypotheses noted above. It is important to note the correlations are often defined by strength. Typically, a weak correlation spans from .1 to .3 in both the negative and positive direction, a moderate correlation from .3 to .5, in both the negative and positive direction, and a strong correlation from .5 to 1 in both the negative and positive direction.

After the bivariate relations were explored, multivariate analyses were conducted. Multivariate analysis assessed how each of the four factors from the EPA were uniquely related to the various indices of lying. Multivariate analyses were conducted on six unique domains of lies. The domains of lies measured will be Frequency of Lies Told, Targets of Lies (Variety), Targets of Lies based on Severity, Duping Delight (personal enjoyment gained from lying), Lies told for Disclosure, and Lies told for Self-Gain/Impression Management.

After looking at the initial results of the study, diagnostics were run to assess distributional problems of the data. Due to issues with variables falling outside of the normal distribution, several dependent variables used within the study were logged to correct for skewness in the distribution. The dependent variables logged to correct for skewness were Frequency of Lies, Targets of Lies, Targets of Lies, more Severe, Duping Delight, and SelfGain/Impression Management. Based on these diagnostics, and the logging of the DV, OLS Regressions were the appropriate statistical technique to use for analyses.

Chapter Four:

Results

The results section of the study is presented as follows. The section begins with a brief discussion of the demographic information and the characteristics of the descriptive measures used in the study. The results of the study are then discussed based on the predicted hypotheses previously mentioned at the end of Chapter 2. Finally, additional information that was gathered as part of the study that does not relate directly to the aforementioned hypotheses is presented and discussed.

Demographics

Prior to analyses being conducted demographic information was gathered for the sample. Vital demographic information is as follows: 291 participants took the survey. Ultimately due to missing data and issues with response desirability, 30 cases were thrown out. The following demographic data are based on the 261 cases that were used for the study. Of these participants 43.4% were male, and 56.6% were female. The average age of the participants was 20.5 years old with a standard deviation of 3.59. The participants ranged in age from 18 to 43, with 8 participants being over the age of 30. The ethnic breakdown of the study participants was as follows: 59.5% of respondents identified as White, 15.8% Hispanic, and 8.2% African American. Less than 5% (4.8%) of the participants identified as Asian while 5.9% of the participants identified as other.

Measures

Descriptive statistics on the dependent and independent variables used within the study are presented below. The dependent variables are presented and discussed first, followed by the four overarching facets of the EPA. The means of all variables are presented with standard deviations in parentheses. Frequency of lies told, 1.02 (.183); Variety of Lies, .6181 (.270); Variety of Lies-More Severe, .1819 (.204); Duping Delight, .922 (.214); Lies Told for Disclosure, 2.15 (.491); and lies told for Self-Gain/Impression Management, .981 (.152).

Interpretations of the above results can best be described as follows. The majority of participants in this particular sample told relatively few lies. The only general exception to this finding, were lies told for the purposes of disclosure. As stated later in the strengths and weaknesses section, this finding is probably due to the paucity of individuals in the sample with true psychopathic personality characteristics. Results would likely be very different in a forensic context. College students lied for the purposes of disclosing information or not at a relatively high rate and least in relationship to the other types of lies being measured. These results, specifically those in reference to disclosure and Self-Gain/Impression Management are similar to the previous study conducted by Phillips et al. (2011). As many of the measures/variables were created specifically for the current study (Duping Delight, Target of Lies Severe, etc.), there are no previous studies of which to compare results.

Descriptive statistics of the EPA are as follows: Antagonism, 11.82 (2.78); Disinhibition, 9.58 (2.06); Emotional Stability, 14.18 (3.21); and finally, Narcissism 12.15 (2.07).

Interpretations of the listed dimensions or facets of the EPA are best described in context that is in comparisons with previous uses of the measure. As the measure is relatively new and has only been in existence since 2011, there are few bases for comparison. Means and standard deviations

from the aforementioned facets are in line with/similar to other studies using the measure in a college sample (see Miller et al., 2011).

Additionally when examining the aforementioned measures it is important to know the maximum score possible on each of the aforementioned variables so one can better understand the context within which the results of this study fall. Data from variables not being explicitly tested in the Hypotheses (including all four EPA Independent variables) are discussed first followed by the dependent variables tested within the various hypotheses discussed earlier. Scores for each of the 4 factors of the EPA are based on the sum of the facets that comprise each individual factor/trait. On Antagonism, participants could theoretically score a 25. On Disinhibition, participants could score a 24, while on Emotional Stability, participants could theoretically score a 15. Finally, on Narcissism, participants could theoretically score a 20. As mentioned previously, the means of the four factors of the EPA were as follows: 11.82 for Antagonism (with a range of 6-21), 9.58 for Disinhibition (with a range of 6.13-21.89), 14.18 for Emotional Stability (with a range of 3.89-14.22), and 12.15 (with a range of 6.22 through 18.56) for Narcissism. These findings indicate that participants in the study scored the highest on Emotional Stability and scored lower on the other three traits. Interestingly, at least one participant scored somewhat close to the maximum on each of the four traits.

Additionally, as seen above the mean score of the sample in regard to Duping Delight is .922 with a range of (.69 to 1.48). The highest possible score for Duping Delight is 10. These findings suggested that college students did not lie very much for personal enjoyment. After data collection, the variable was dichotomized (0 for absent, 1 for present) and the dichotomized items were summed.

Again, the outcome measures include Lying Frequency, Targets of Lies Told, Lies told for Self-Gain/Impression Management and Self-Disclosure Lies. The mean of Lying Frequency among the sample in the current study was found to be 1.02 (with a range of .69 to 1.61); the maximum a participant could theoretically score on Lying Frequency was 6. As expected within a college sample, no single individual lied with alarming frequency. Similar to the aforementioned duping delight variable, this variable was dichotomized and the dichotomized items summed. Targets of lies told was measured two ways: Targets of Lies Told, and Targets of Lies Told, More Severe. The maximum score one could receive for each of these variables was six. Individuals had a mean score of .466 (with a range of 0 to .69) for Targets of Lies Told and a mean score of .1819 with a range of (0 to .69) for Targets of Lies Told, More Severe. In either case, the college students in this sample lied to relatively few targets. Similar to the frequency of lies and duping delight variables the variable was ultimately dichotomized (0 for absent, 1 for present) and the dichotomized items were ultimately summed. A participant could score a maximum of 21 on Lies told for Self-Gain/Impression Management. Similar to the aforementioned scales this variable was dichotomized and later summed. Considering the average score from the sample on this variable was .981, and the maximum score from the entire study was 1.40 with a minimum of .69, participants once again scored fairly low. Finally, study participants recorded a mean of 2.15 (with a range of 1 to 3.67) on this measure for Disclosure Lies out of a theoretical maximum score of 8. Again, the variable was dichotomized and summed. While not approaching 8, at least one participant fit the criteria for almost half the categories measured by lies told for purposes of disclosure. While the results are not overly impressive taken out of context, results are far more telling in the context of the hypotheses and when explored using OLS Regression Analyses.

Hypothesis 1

The first hypothesis is that: Antagonism (a), Emotional Stability (b), Disinhibition (c), and Narcissism (d) scores will be positively related to the number of lies told. If this hypothesis is supported, individual levels of Antagonism, Emotional Stability, Disinhibition, and Narcissism would also be positively related to frequency of lies told. An OLS Regression analysis (Table 1) assessed the relationship between the EPA and how often participants reported lying. The model fit the data well ($F_{(7, 253)} = 9.863, p < .001$), and accounted for 21.4% of the variance. Two EPA factors demonstrated significant relationship with Frequency of Lying. Both Antagonism ($\beta = .236$) and Disinhibition ($\beta = .245$) were positively and modestly related to Frequency of Lying. Those who scored higher on Antagonism and Disinhibition self-reported a greater number of lies told. The other two EPA factors, as well as the demographic variables, were not significantly related to the outcome. Based on this information Hypothesis 1 was only partially met.

Table 3: Frequency of Lying Regressed onto EPA and Demographics

Variable	Unstandardized Coefficient	Standard Error	Standardized Coefficient	Significance (p-value)
Age	.003	.003	.056	.319
Nonwhite	.010	.021	.027	.633
Male	.014	.023	.039	.531
Antagonism	.016	.005	.236	.003*
Emotional Stability	-.011	.006	-.124	.054
Disinhibition	.014	.004	.245	.001*
Narcissism	-.002	.006	-.019	.774
Adj. R2	.214			

n=261, p<.05

Hypothesis 2

The second hypothesis is that Antagonism, Emotional Stability, Disinhibition, and Narcissism scores will be positively related to the variety of individuals to whom an individual lies. If this hypothesis is supported, all of the aforementioned personality traits from the EPA will be positively related to the variety of individuals to whom an individual lies. To fully test this variable, two separate OLS Regressions were conducted, one which measures variety of individuals lied to, and the other which measures variety of individuals lied to in regard to more severe lies.

Table 4 shows the relationship between the EPA and the variety of lies told by participants. The model fit the data well ($F_{(7, 253)} = 4.622, p < .001$), and accounted for 11.3% of the variance. One EPA factor demonstrated a significant relationship with the variety of lies told by participants. Disinhibition ($\beta = .179$) was positively and modestly related to Targets of Lies (Variety of Lies Told). This finding indicates that those with higher levels of Disinhibition told lies to a greater variety of individuals. In other words, individuals who are less inhibited were

Table 4: Targets of Lying (Variety) regressed onto EPA and Demographics

Variable	Unstandardized Coefficient	Standard Error	Standardized Coefficient	Significance (p-value)
Age	.004	.004	.060	.318
Nonwhite	-.012	.034	-.021	.724
Male	.038	.036	.071	.285
Antagonism	.011	.008	.110	.185
Emotional Stability	-.016	.009	-.122	.075
Disinhibition	.015	.007	.179	.024*
Narcissism	.006	.009	.047	.504
Adj. R2	.113			

n=261, p<.05

more likely to tell a greater variety of lies. The other three EPA factors, as well as the demographic variables, were not significantly related to the outcome.

Table 5 displays the results of the OLS regression assessing the relationship between the EPA and the variety of more severe lies told by participants. The model fits the data well ($F_{(7, 253)} = 8.809, p < .001$), and accounted for 19.6% of the variance. Two EPA factors demonstrated significant relationship with severe lies told. Both Antagonism ($\beta = .255$) and Disinhibition ($\beta = .254$) were positively and modestly related to Frequency of Lying. Antagonistic and disinhibited individuals were more likely to tell more severe lies to a wider variety of people. The other two EPA factors, as well as the demographic variables, were not significantly related to the outcome. The results from the two aforementioned regressions indicate that the second hypothesis was only partially supported.

Table 5: Targets of Lying (More Severe) regressed onto EPA and Demographics

Variable	Unstandardized Coefficient	Standard Error	Standardized Coefficient	Significance (p-value)
Age	.002	.003	.034	.550
Nonwhite	.039	.024	.093	.110
Male	-.015	.026	-.036	.561
Antagonism	.019	.006	.255	.001*
Emotional Stability	-.008	.006	-.077	.236
Disinhibition	.016	.005	.254	.001*
Narcissism	-.011	.007	-.111	.096
Adj. R2	.196			

n=261, $p < .05$

Hypothesis 3

The third hypothesis was that Antagonism, Emotional Stability, Disinhibition, and Narcissism scores will be positively related to Self-Gain/Impression-Management lies. If this

hypothesis is completely supported, individuals with higher levels of the aforementioned personality traits will be more likely to lie for purposes of Self-Gain/Impression Management.

Table 6 displays the results of the OLS regression focused on Self-Gain/Impression Management, or whether individuals lie for the purpose of personal gain or impression management. The model fit the data well ($F_{(7, 254)} = 19.213, p < .001$) and accounted for 34.6% of the variance. Three EPA factors demonstrated significant relationship with lies told for SelfGain/Impression Management. Antagonism ($\beta = .308$) and Disinhibition ($\beta = .295$) were positively and moderately related to these types of lies. Emotional Stability ($\beta = -.171$) was negatively and modestly related to this type of lying. The results indicate that individuals with high Antagonism, high Disinhibition and low emotional stability are more likely to lie for personal gain or impression management. Narcissism, as well as the demographic variables, was not significantly related to the outcome. Once again, this hypothesis was only partially supported.

Table 6: Self-Gain/Impression Management regressed on EPA and Demographics

Variable	Unstandardized Coefficient	Standard Error	Standardized Coefficient	Significance (p-value)
Age	.000	.002	-.007	.886
Nonwhite	-.008	.016	-.025	.629
Male	.025	.017	.082	.146
Antagonism	.017	.004	.308	.000*
Emotional Stability	-.013	.004	-.171	.004*
Disinhibition	.014	.003	.295	.000*
Narcissism	-.003	.004	-.040	.498
Adj. R2	.346			

n=262, p<.05

Hypothesis 4

The fourth hypothesis is that Antagonism, Emotional Stability, Disinhibition, and Narcissism scores will be positively related to Self-Disclosure lies. If this hypothesis is supported, scores from these four areas of the EPA will be positively related to lies of Self-Disclosure.

Table 7 displays the results of the OLS regression measuring lies told for purposes surrounding disclosure. This regression assessed the relationship between the EPA and lies told by participants to avoid disclosing important personal information. The model fit the data well ($F(7, 254) = 12.902, p < .001$) and accounted for 26.2% of the variance. Three of the four EPA factors demonstrated significant relationship with Disclosure. Both Antagonism ($\beta = .327$) and Disinhibition ($\beta = .165$) were positively related to Disclosure, while Emotional Stability ($\beta = -.231$) was negatively related to this type of lie. Antagonism and Disinhibition have demonstrated a relatively consistent pattern of being associated with deception. Individuals who have greater control over their emotions are less likely to lie to avoid disclosing information. Stated alternatively, those who are more emotionally unstable are more likely to lie in an effort to avoid revealing something about themselves. Narcissism and the demographic variables were not significantly related to the outcome, and thus the hypothesis was only partially supported.

Additional information gathered as part of the study is presented below. Correlations between the independent variables, and also between the independent and dependent variables are discussed in the subsequent section. Additionally, an OLS Regression was ran to measure Duping Delight. Due to lack of previous information on the construct of Duping Delight, no hypothesis was created pre hoc.

Table 7: Disclosure Regressed on EPA and Demographics

Variable	Unstandardized Coefficient	Standard Error	Standardized Coefficient	Significance (p-value)
Age	-.004	.007	-.027	.626
Nonwhite	-.092	.055	-.092	.099
Male	-.019	.058	.020	.743
Antagonism	.057	.013	.327	.000*
Emotional Stability	-.054	.015	-.231	.000*
Disinhibition	.025	.011	.165	.023*
Narcissism	-.112	.015	-.050	.427
Adj. R2	.262			

n=261, p<.05

Correlations

Correlation results are shown in two tables. Table 8 displays the results for the correlations between independent variables. The demographic variables of age, nonwhite, and male were used as control variables and the four factors measured by the EPA were also included as independent variables. These factors are Antagonism, Emotional Stability, Disinhibition, and Narcissism.

Means and standard deviations for all of the independent variables are also displayed in Table 8. Correlations were small to moderate and ranged from .278 to .581. An important finding of which to be aware is being male being correlated with both increased levels of Antagonism (.306) and Emotional Stability (.278). Being male was correlated with both being Antagonistic and being Emotional Stable. This finding points to some sort of gender difference in personality traits that has not been previously examined and worthy of future research. Additionally, the

EPA personality traits of Disinhibition and Antagonism were strongly correlated (.581) as were Narcissism and Antagonism (.449). In other words, being Antagonistic was strongly related to being both Narcissistic and Disinhibited. Finally Narcissism and Disinhibition were moderately correlated (.307). Being Narcissistic was moderately related to lack inhibition. More research on the correlations between the 4 EPA Traits and replications among different samples would be of particular interest.

Table 8: Correlations between Independent Variables

Variable	Means	SD	1	2	3	4	5	6
1. Age	20.52	3.61						
2. Nonwhite	.366	.482	.126					
3. Male	.433	.496	-.004	-.052				
4. Antagonism	11.82	2.78	-.078	.032	.306*			
5. Emotional Stability	9.58	2.06	-.054	-.042	.278*	.023		
6. Disinhibition	14.18	3.21	-.051	-.102	.088	.581*	-.267	
7. Narcissism	12.15	2.07	-.023	.043	.074	.449*	.196	.307*

n=261 p<.05

Table 9 displays correlations between the four factors of the EPA, and the seven dependent variables used in this study. The dependent variables measure the following: (1) How frequently an individual lies; (2) the variety of targets to whom an individual lies; (3) the variety of targets to whom an individual tells more severe lies; (4) duping delight, or individual enjoyment gained from lying; (5) disclosure, or lies individuals tell to avoid disclosing information about themselves; and (6) self-gain/impression management, or lies an individual tells for either personal gain and/or to manage the impressions of others. The means and standard deviations of the dependent variables are also displayed in Table 3.

Correlations were from small to moderate and ranged from $-.264$ to $.524$. Both Antagonism and Disinhibition were consistently and generally moderately related to each of the dependent variables. Essentially, this means that the personality traits of Antagonism and Disinhibition were typically related to all types of lying explored within the context of the study. Individuals who scored higher or possessed higher levels of Antagonism and/or Disinhibition were more likely to lie in all scenarios explored within the context of the study. With the exception of a strong correlation of $.581$ between the two EPA personality traits of Antagonism and Narcissism and a correlation of $.524$ between Disinhibition and Self-Gain/Impression Management, none of the associations between variables were strongly correlated.

It is important to note that due to the relatively strong correlations between Disinhibition and Antagonism and Narcissism and Antagonism, there was some concern that the variables were too greatly overlapped or collinear. Collinearity diagnostics were run on these variables and they were found not to be collinear. The two strong correlations and the moderate correlations between the various types of lies being measured and Antagonism and Disinhibition point to these two personality traits having relationships with lying that are worth noting. Emotional Stability and Narcissism, the other two factors from the EPA, failed to demonstrate any significant bivariate relationships with any of the dependent variables. The same was true for the demographics – none were related to the various measures of deception.

Table 9: Correlations between Independent and Dependent Variables

Independent Variables	Frequency of Lying	Targets (variety)	Targets (variety; serious)	Duping Delight	Disclosure	Self-Gain/ Impression Management
Age	.028	.040	.013	-.055	-.064	-.043
Nonwhite	.008	-.034	.066	-.048	-.098	-.046
Male	.091	.076	.036	.183	.032	.144
Antagonism	.396*	.264*	.361*	.521*	.408*	.480*
Emotional Stability	-.158	-.132	-.155	-.119	-.275	-.230
Disinhibition	.414*	.313*	.382*	.439*	.430*	.524*
Narcissism	.145	.137	.067	.132	.083	.149
Means	1.021	.618	.181	.922	2.15	.981
SD	.182	.270	.204	.214	.492	.152

n=261, p<.05

Additional interpretations of correlations can best be described as follows: Individuals who scored higher in Antagonism lied more across all levels. That is, those who scored higher in Antagonism lied more frequently, lied to more different targets and more severely towards these targets, lied more for enjoyment (duping delight), and lied more for purposes of both disclosure and impression management. Similarly, those who scored higher in Disinhibition lied more across all domains. Those with higher Disinhibition scores lied more frequently, told lies to a great variety of targets and also lied more severely towards these targets, lied more for enjoyment (duping delight) and lie more to avoid disclosing information as well as for the purpose of impression management. Again it is important to note, that the strengths of the associations between variables here were from small to moderate, with the two aforementioned correlations and the correlation between Antagonism and Duping Delight (.521) being exceptions in that they were strongly correlated.

Table 10 displays the results of the OLS regression measuring duping delight. This regression assessed the relationship between the EPA and duping delight, or individual

enjoyment gained from the telling of lies. The model fit the data well ($F_{(7, 253)} = 15.779$, $p < .001$), and accounted for 30.4% of the variance. Two EPA factors demonstrated significant relationships with duping delight. Antagonism ($\beta = .441$) was moderately related to duping delight, while Disinhibition ($\beta = .162$) exerted a weak effect. These findings indicate that antagonistic (in particular) and disinhibited (to a lesser extent) individuals take satisfaction in lying to others. The other two EPA factors, as well as the demographic variables, were not significantly related to the outcome.

Table 10: Duping Delight regressed onto EPA and Demographics

Variable	Unstandardized Coefficient	Standard Error	Standardized Coefficient	Significance (p-value)
Age	-.001	.003	-.009	.865
Nonwhite	-.017	.024	-.039	.464
Male	.028	.025	.065	.264
Antagonism	.034	.006	.441	.001
Emotional Stability	-.010	.006	-.094	.123
Disinhibition	.011	.005	.162	.022*
Narcissism	-.010	.006	-.096	.121
Adj. R2	.304			

n=261, $p < .05$

Finally, all models were rerun post hoc with none of the original cases thrown out to assess whether or not there were substantive differences with individuals who might have responded in a more socially desirable manner included in the data analysis. Interestingly, when the data were analyzed in this manner, Narcissism was found to be positively correlated (.208) to Emotional Stability. Additionally, Disinhibition was found to be negatively correlated to Emotional Stability (-.259), when it had not been previously. In other words, more Narcissistic individuals tended to be more emotionally stable and more inhibited individuals tended to be less

emotionally stable. Reasons behind this finding are explored in the subsequent discussion section.

When rerunning the regression models with all the cases included, Narcissism was found to be negatively related to duping delight ($\beta = -.135$) and frequency of lies told more severe ($\beta = .128$). In other words more Narcissistic individuals lied less for purposes of duping delight and told severe lies to fewer targets. The results will be discussed further in the discussion section. No other substantive changes were noted in the data when all data cases were included.

Chapter Five:

Discussion

The discussion section begins with a brief reintroduction of the study, its objectives and why it is of interest and of importance. Following this brief introduction, the results for the specific hypothesis tested in the study are presented and discussed. After an examination and analyses of the hypotheses, additional findings from the study that advance the research literature beyond the hypotheses are presented and examined. Following this portion of the discussion, practical implications are examined, and directions for future research presented. Finally, limitations and strengths of the study are referenced, and concluding thoughts presented.

Before diving into the discussion it is important to note the findings of the current study must be viewed with caution. While the findings contained within are promising and suggestive, they are hardly conclusive due to the sample population being undergraduate students, who have low levels of lying. The aforementioned disclaimer notwithstanding, the purpose of this study was to advance our knowledge regarding the relationship between psychopathic personality traits and lying. While there is substantial research on psychopathy, and some research on lying, few previous research studies have focused on the relationship between the two.

In addition to this research objective, the study also made use of the Experimental Psychopathy Assessment (EPA; Lynam et al., 2011), a newer assessment tool that is based, in part, on the Five Factor Model of personality. As the EPA is a newer psychopathy assessment, few previous research studies have made use of it. This particular study is among the first to

measure a construct related to psychopathy, in this case lying, in conjunction with the EPA. Additionally, this study assessed lying using a new, but validated, measure of lying (Phillips et al., 2011). This measure divides lying into 2 broad overarching sub-categories: lies told for purposes of Disclosure and lies told for Impression Management/Self-Gain.

As very little research has been done previously measuring the relationship between psychopathy and lying, this study adds to the research literature on both psychopathy and lying. Lying is ubiquitous in society, and yet very little is known regarding how certain personality traits relate to and drive the various types of lies told. Much like any other form of psychopathology, psychopathy is not an either-or proposition, but rather exists and can be measured along a continuum. An understanding of psychopathic personality traits and their relationship to various aspects of lies told helps advance the knowledge regarding lies told by both psychopathic individuals and others, and will facilitate the understanding of lying in clinical and forensic settings.

The results of this study are telling and help explain psychopathy and its relationship to lying. Results of this study are presented based on four hypothesis originally identified at the end of Chapter 2. Results are presented based on additional information that was gathered independent of the hypotheses.

Six regression analyses were performed within the study, five of which reflected the four hypotheses created within the study. Much of what was found at the bivariate level was also found when the unique effects were assessed. Specifically in reference to hypothesis one, increases in levels of both Antagonism and Disinhibition were related to an increase in frequency of lying. In other words, the more Antagonistic and more Disinhibited a person was, the more often he or she would lie. This finding indicates that the first hypothesis was only partially

supported, as it was hypothesized that all four factors of the EPA would be related to an increase in frequency of lying. The reason that neither Emotional Stability nor Narcissism was found to positively relate to increased frequency of lying is uncertain, but speculatively might relate to the survey being conducted on a college population with lower levels of these two personality traits.

The second hypothesis examined targets of lies. The original hypothesis was that Antagonism, Emotional Stability, Disinhibition, and Narcissism would be positively related to variety of individuals who were targeted for lies. Results indicated, that the more disinhibited a person was, they greater the variety of individuals to whom lies were told. Emotional Stability, Disinhibition and Narcissism were not found to have any relationship to targets of lies. Similarly, another measure explored a similar concept except that it measured to whom more severe lies were told. Increased levels of Antagonism and Disinhibition were found to lead to increased levels of severe lies being told to a greater variety of targets. Once again, this hypothesis was only partially supported. Issues with the study population or potentially a methodological artifact, (participants not understanding some of the questions and not answering accurately), might account for these results. A more detailed and plausible explanation for these results is included below, after each hypothesis is discussed.

The final two hypothesis measured the two broad overarching categories of lies, SelfGain/Impression Management and Disclosure. Similar to the previous hypotheses, increased levels of Antagonism and Disinhibition were related to increased levels of lies told for personal gain and/or impression management. Contrary to Hypotheses 3, however, lower levels of emotional stability were also related to lies of Self-Gain/Impression Management.

The test of Hypothesis 4 showed increased levels of Antagonism and Disinhibition were related to increased levels of lies told for Disclosure. Additionally, lower levels of Emotional Stability were positively related to lies told for purposes relating to Disclosure. Narcissism, however, had no relationship to lies being told for purposes in regard to Disclosure. In regard to Emotional Stability, the less emotionally stable a person, the more likely he or she was to lie to avoid disclosing pertinent information. It is important to note that Emotional Stability is a hallmark of the psychopathic personality, and thus this measure might come across as somewhat confusing. While it was expected that the “normal” individual’s tendency to lie was related to lower levels of emotional stability (which was found in the study), one would expect the psychopathic individuals lies to be positively related to emotional stability. In other words, psychopathic individuals would be expected to remain emotionally calm and unaffected when they lie, which is how the construct was designed. Due to population of the study not being done in a setting where individuals were found to have higher levels of psychopathic personality traits, this portion of the hypothesis was not supported.

It is important to explore further why Antagonism and Disinhibition were consistently related to the various outcome measures while Narcissism and Emotional Stability (at least in the hypothesized direction) were not. While a claim can be made that the findings that do not support the hypotheses might be due to methodological artifacts or issues, a more likely explanation relates to the constructs themselves. Narcissism is a difficult personality trait to measure as there is some question as to whether or not Narcissistic individuals are aware of their Narcissism. It might very well be that Narcissistic individuals lack the self-awareness to admit or consciously recognize when they are lying. Additionally, Narcissistic individuals might very well not lie. Individual with an overabundance of this personality trait might very well be

unconcerned with the opinions of others or, as discussed later, duping others, and, perhaps, just does not lie very much at all. Finally, the strong correlations between Narcissism and both Antagonism and Disinhibition cannot be completely dismissed.

This study did not measure Narcissism on its own but rather in conjunction with other personality traits that have been found to have some statistical and conceptual overlap. It is quite possible that if Narcissism's relationship to lying was measured without Antagonism or Deception, the relationship between Narcissism and various types of lies/lying behavior would be found to be statistically significant. Additionally, if a measure that explicitly was used to measure Narcissism, absent of the other overlapping personality traits, such as the Narcissistic Personality Inventory (NPI), the personality trait may very well be found to relate to various types of lying. Interestingly enough, when all cases of data were analyzed (those previously thrown out for issues with social desirability), levels of Narcissism were found to be negatively related to lies told for purposes of duping delight and severe lies told to a variety of targets. These findings added further questions, and point to the possibility that Narcissistic individuals are less likely to lie in certain contexts. Further research is needed in this area.

In terms of Emotional Stability, a difference exists between the level of Emotional Stability expected to be found in a psychopathic personality and a more typical individual. Despite their underlying pathology, the psychopathic personality does not have liable emotions (Hare, 2003). There is no reason to believe that anything but a normal consistent level of Emotional Stability in this type of individual is related to lying. Given that the population being studied in the current study was a college sample, the finding that lower levels of emotional stability relate to lying in several categories makes sense as individuals without the psychopath's

unique pathology would inherently be less stable if they are lying on a consistent basis. Further research is needed in this area.

Finally, a regression measuring Duping Delight or individual enjoyment gained from lying was conducted independent of the hypothesis constructed for the study. Similarly to other hypotheses and dependent variables being studied, individuals with higher levels of Antagonism and Disinhibition were found to be more likely to lie simply because they enjoyed doing so.

Independent of the hypotheses, correlations were run between several control variables and the four primary factors of the EPA (i.e., Antagonism, Emotional Stability, Disinhibition, and Narcissism) were explored. The only significant correlations between the demographics and the EPA were related to males. Specifically, males scored higher on Antagonism and Emotional Stability. While the reasons behind the finding that males score higher in these two areas are unclear, the findings echo the common perception that males are both more aggressive and emotionally stable than women. Researchers would be wise to explore this area further.

Correlations between the independent variables and dependent variables measured in the study were more telling. Significant positive correlations were found between Antagonism and all of the dependent variables measured and between Disinhibition and all of the dependent variables measured. Higher levels of Antagonism were positively correlated with increased frequency of lying, lying to a variety of targets, telling severe lies to a variety of targets, duping delight (enjoyment gained from lying), lies told for purposes of avoiding disclosure, and lies told for Self-Gain/Impression Management. Similar relationships were found between Disinhibition and all of the aforementioned indices of lying.

These results help advance our knowledge about the relationship between psychopathic personality traits and lying. The results indicate that the personality traits of Antagonism and Disinhibition are robustly related to lying. Individuals with higher levels of Antagonism and Disinhibition told lies across nearly every category at higher rates than those with lower levels of these personality traits. Additionally, lower levels of Emotional Stability were related to increased levels of lies told to avoid disclosing personal information and increased levels of lies told for purposes of self-gain/impression management. As discussed previously this finding runs contrary to the original hypothesized relationship. Once again, this relates to levels of Emotional Stability in the psychopathic individual versus that of the non-psychopathic individual. Had the levels of psychopathy been clinically significant in this study (i.e., with a different population), the relationship between lying and Emotional Stability likely would have been in the hypothesized direction. For individuals without this unique form of psychopathology, lower levels of Emotional Stability mean more lies, as a highly stable individual that is pathology free has no need to lie.

What is particularly interesting about these results is what they potentially mean for future research regarding psychopathy. Based on Hare's (1993) PCL-R, pathological lying falls under Factor 1, and specifically on the interpersonal dimension. These results expand upon Hare's conceptualization and point towards more specific personality traits being related to pathological lying. For instance, it is not only the interpersonal deficits expressed by psychopathic individuals that influence lying (as indicated in the PCL-R), it is also their impulsive nature that affects lying. Additionally, these results give increased validity to the EPA as a legitimate measure of psychopathy, as the findings regarding Antagonism and Disinhibition

are in line with previous research of the construct (see Hare et al, 1989; Widiger and Lynam, 1998; Klaver et al., 2009).

In regard to lying, the results also have implications for advancing our knowledge. While lying and psychopathy have previously been found to relate to one another, the specific mechanism by which they relate has not been parsed out. While the current study will need to be both replicated and expanded upon, the results from the current study give us reason to believe that individual levels of Antagonism and Disinhibition strongly relate to various dimensions of lying, including but not limited to, frequency of lies told, and number of targets of lies. Additionally, based upon the initial results of this study, it would appear that lower levels of Emotional Stability also play a role in driving individuals to engage in lying behavior. As discussed further below, the present study helps us to better understand lying and the deceptive behaviors of psychopathic individuals.

Lying

One of the primary goals of this research study was to garner a better understanding of lying. As mentioned previously, few studies have previously looked at the construct of lying, and with the exception of the Spidel et al. (2011), no previous study has looked at the relationship between psychopathic personality traits and lying. The most interesting finding from the current study is multi-faceted. What the findings from the current study suggest is that those who lie are high on certain personality traits, and lie indiscriminately, meaning the lies they tell are told with no discernible purpose. This finding differs from much of the earlier research on lying which demonstrated mixed findings in regard to frequency of lies told, relational distance between the teller and receiver of the lie, and the general underlying motivation for telling lies.

This study does not specifically parse out motivations for lying. Exceptions to this are the regression analyses focusing on the overarching broad categories of lying—Disclosure and SelfGain/Impression Management. These results seem to indicate that lying is less driven by situation or-specific motivations, and more based on the presence of certain personality traits (i.e., Disinhibition and Antagonism).

Deceptive Behaviors of Psychopathic Individuals

The results of the study also tell us a fair amount regarding the deceptive behaviors of psychopathic individuals. As previously mentioned in reference to the hypotheses tested within this study, individuals with higher levels of Antagonism and/or Disinhibition lie more frequently and to more people than other individuals. Additionally, individuals with these traits lie for more diverse reasons than other individuals. These findings reinforce the idea that the psychopathic individual is a habitual, pathological liar. Irrespective of whether the study participants were lying to avoid disclosing personal information or for sheer enjoyment (duping delight), individuals who were more antagonistic and disinhibited, as assessed with the EPA (Lynam et al., 2011), lied more frequently.

Interestingly as found in relation to the tested hypotheses, the two other factors measured by the EPA, Narcissism and Emotional Stability, had little to do with lying. Narcissism did not exhibit any significant relationships with the categories of lies being measured while Emotional Stability, or more accurately, lack of Emotional Stability, was related only to lies told for purposes of disclosure and lies told for purposes of self-gain/impression management. See the above explanation as to why these results were produced.

Where Lying Comes From

This study has helped further narrow down where lying comes from in regard to psychopathy. The original belief, as defined by Hare in the PCL (1980), and later the PCL-R (2003), was that the tendency to lie pathologically was a specific behavior of the psychopathic individual that fell under the first factor of the PCL. This factor was comprised of the interpersonal and affective traits of the disorder. The EPA factor of Antagonism is closely related to the agreeableness factor from the FFM (Lynam et al., 2011). Previously, the thought was that lower levels of agreeableness from the FFM were linked to Factor 1 of the PCL, which is ultimately linked to pathological lying (Widiger & Lynam, 1998). The consistent, significant relationships shown by Antagonism to all measures of lying conducted within the study indicate that low levels of agreeableness are related to lying behavior. Thus, this aspect of the current study is consistent with previous speculations regarding agreeableness and lying. While more research is in order, the results from the current study indicate that lying as it relates to psychopathy may not solely be related to Factor 1 of Hare's original conceptualization, but might also fall somewhat under Factor 2.

This line of thinking becomes more prominently supported by the consistent, positive significant relationships found between Disinhibition and all the lying measures within the current study. According to the EPA (Lynam et al., 2011) and additional previous research linking it to the SRP-III (Miller et al., 2014), Disinhibition measures many of the erratic/antisocial components of psychopathy, which are traditionally subsumed under Factor 2 of Hare's conceptualization of psychopathy. In other words, lying is related to more aspects of the psychopathic personality than previously conceptualized. More specifically, lying appears to

stem from traits that are related to both Factors 1 and 2 (from the PCL-R), as opposed to only Factor 1 (which was what was previously thought).

Practical Implications

The practical implications of the current study are also of note. Research indicates that the even the most highly-trained, and experienced human lie detectors can only detect lies accurately around 50% of the time (Ekman, 1991). The study provides court-based professionals and mental health professionals with a healthy dose of skepticism regarding the claims made by certain individuals with whom they are working. Knowing which traits are related to lying might assist various professionals in identifying individuals prone to lying. For instance, assessing personality can alert professionals in court based settings, as well as mental health settings, to be more wary and skeptical of individuals with certain traits. Theoretically, these findings should lead these professionals to seek additional information about the individual with whom they are working from different sources. Criminal records, knowledgeable others, and previous mental health and forensic assessments are often available sources that allow various stakeholders in the criminal justice and mental health services system to garner a fuller picture of those with whom they are coming into contact.

Outside of implications for law enforcement, the courts, and mental health personnel, this study and its results also have practical implications for the lay individual. While the layperson will rarely truly be able to assess whether or not they are being lied to and does not have access to normed personality measures, a better understanding of the personality traits that influence lying will assist them in questioning claims from others. The majority of individuals have some sort of sense that something is amiss when they are being lied to, but cannot quite put their finger on it (Ekman, 1991; Phillips et al., 2011). Even a cursory understanding of the findings of this

study may help the lay individual decipher whether or not someone is lying to them. Even a basic understanding of these personality traits and their potential linkage to lying and deception will serve the general public in questioning the extent to which the words of others in their daily lives match the same individuals' actions.

Additionally, a better understanding of lying and the personality traits related to lying might increase individuals' levels of self-awareness. While this study did not measure lies told to the self, it is quite possible that individuals lie to themselves at times without even being aware that they are doing so. Therapeutic interventions from Psycho-Dynamic/Psycho-Analytical Theory and/or Cognitive Behavioral Therapy might be useful in helping clients understand their own lying behavior and how the lies they tell are harmful to themselves, others, and their interpersonal relationships. Even with the increase of knowledge on the relationship between lies and psychopathic personality traits, there are still many unanswered questions regarding the two constructs and their theoretical/practical overlap.

Future Research

While the current study does address several questions surrounding lying, psychopathy, and the relationship between the two, additional important questions remain unanswered. The potential role of Narcissism and the relationship of this personality trait to both psychopathy and lying is a question that remains unanswered, and one that is worthy of further exploration. Narcissism was found to have no significant relationship to any of the dependent variables explored within the current study. Potential reasons for Narcissism's lack of relationship to any of the categories of lying explored within the context of the study the study are discussed above.

While the issues relating to why Narcissism were not found to be related to any of the types of lies are discussed above, there is also some reason to believe that Narcissism and general levels of self-centeredness might have something to do with certain types of lying. It is possible that individuals with high levels of Narcissism might particularly enjoy engaging in duping delight. While the opposite was found to be true when analyzing the data using the cases that were originally thrown out for issues with social desirability, there is still a possibility that individuals with higher levels of Narcissism get some sort of intrinsic reward from duping others. It should be noted that an equal chance also exists that more Narcissistic individuals have no interest in duping others (or lying in any other realm) due to their self-centeredness and that Narcissism might be consistently negatively related to lying. Additionally, the lack of a relationship between Narcissism and lies told for self-gain/impression management is somewhat surprising. One could surmise that the narcissist's strong interest in personal gain would lead to lies of this manner being told on a consistent basis. This speculation was not confirmed in the current study, however. Perhaps, the overlap between Narcissism and Antagonism and Disinhibition, which were correlated at the bivariate level, explains why individuals with high levels of Narcissism lie (see discussion above). Or perhaps, narcissists are more likely to lie to themselves than others. Future research should seek to better understand if Narcissism is related to lying, and if so, how, and could make use of measures such as the aforementioned NPI to better explore this construction and relationship.

Finally, as the current study only examined a college population, the results leave room for future study of the relationship between psychopathy and lying among different populations. Previous work done by Hare (1993) and Babiak (1995; 2000) focused explicitly on psychopathy in the workplace. The majority of these studies have been small case studies or focused on the

relationship between psychopathy and a charismatic style of presentation and leadership (Babiak et al., 2010). A replication of the current study in the corporate world and/or at additional universities would parcel out more information regarding the relationship between psychopathy and lying, and add to the nascent body of literature on white-collar psychopathy.

Limitations

While the current study offers new insights, there are several limitations that must be addressed. First, all measures relied on self-reports. It is possible that individuals were dishonest in their responding. For example, in an effort to appear more positively, individuals might underreport their level of psychopathic traits. However, several studies have used self-report measures of psychopathy, and such measures have been validated in terms of being accurate assessments of the level of psychopathic traits (Miller, Jones, & Lynam, 2011). Similar concerns exist for the accurate/honest responding about one's lying behaviors. Again, however, such an approach has been used previously and with success.

Another limitation is the use of measures that have limited or no previous validation. The EPA is new and has not been widely validate or used with a college population. However, there is sufficient initial evidence that this measure is appropriate for assessing psychopathic traits among non-institutionalized populations (Lynam et al., 2011). The MDI has limited validation, as prior to this study it had only been used one time. However, initial studies using this measure, including the current study, offer compelling support for its utility and validity. The frequency of lying, targets of lying, and duping delight were created for this study. Unfortunately, no existing, validated measures were available to assess these constructs. To reduce concerns about their validity, their psychometric properties (i.e., internal reliability) were assessed in the current analysis. There were no indications to suggest the measures were not performing as designed.

Finally, there are limitations associated with the sample used in this study. First, the sample was comprised of undergraduate students. Some might argue that such samples do not contain enough variation in psychopathic traits for meaningful analysis. While it is true that the levels of psychopathic traits in the current sample were less than those observed in a forensic sample, numerous studies have reliably assessed psychopathic traits in undergraduate samples (Lillienfeld & Andrews, 1996). Moreover, the current analysis was not designed to assess clinically significant levels of psychopathic traits. Thus, caution should be exercised when attempting to generalize any findings from this study to such forensic populations.

A second, related issue deals with the generalizability of the sample more broadly. Because this sample was drawn from one class in one university of undergraduate students, the generalizability is quite limited. While this is important to keep in mind, there are relatively few criminological analyses that do not also suffer from similar limitations regarding generalizability. Ultimately, replication is necessary.

Strengths

While there are certainly limitations to the study there are also many notable strengths of the study of which to be aware. First and foremost, the study is unique in that it is the first study that has explored the relationship between psychopathic personality traits and lying outside of a forensic context. Additionally, only one study looked at this within a forensic context (see Spidel et al., 2011), so the study is a vital addition to the research literature. Additionally, the use of the EPA to measure the construct of psychopathy is a major strength of the study as few studies have used this instrument previously, and as stated earlier in the current study, the EPA represents a conceptual upgrade over and an evolution of previous measures used to measure psychopathy.

Finally, the study is constructed in such a way that multiple parties can benefit from its results. The study is of particular interest to mental health and forensic personnel for conceptual and practical reasons, but is also written and constructed in such a way that the lay individual can understand and benefit from its results.

Conclusion

Understanding the relationship between psychopathic personality traits and lying has wide-ranging implications in both the court and mental health settings as well as everyday life. The relationship between psychopathic personality traits and lying is more complex than previously assumed. A consistent relationship exists between levels of Disinhibition and Antagonism and lying. These personality traits relate to frequency of lies told, lies told to a variety of different individuals, and lies told for different reasons. Additionally, these personality traits relate to lies told for a variety of purposes. To a lesser extent, individual levels of Emotional Stability relate to lying behavior. Those who are less emotionally stable lie more to avoid disclosing information and for purposes of self-gain and/or impression management. While it was previously believed that lying was only related to one factor of psychopathy specifically in regard to Hare's (1993) conceptualization in the PCL-R, the results of this study appear to indicate that in actuality lying is intertwined with the disorder and relates to both the interpersonal/affective factors of the disorder and the lifestyle/antisocial factors of the disorder.

Findings produced from this study point to the ubiquity of lying among individuals with certain personality traits and the general prevalence of lying behavior within individuals with these personality traits. Due to the frequency in which lying occurs, every person will come across someone in their lives who lies to them at some point in time. While the primary audience of this study consists of forensic personnel, mental health professionals, and the research

community, all can benefit from understanding how lying and psychopathic personality traits interrelate. Future research in this area of study will continue to tell all of us more about the relationship between personality and lying and help society as a whole better understand the pervasiveness and damage caused by lying and deception.

References

- Ariely, D. (2012). *The (honest) truth about dishonesty: How we lie to everyone-especially ourselves*. United Kingdom: Harper Collins.
- Babiak, P. (1995). When psychopaths go to work: A case study of an industrial psychopath. *Applied Psychology: An International Review, 44*, 171-188.
- Babiak, P. (2000). Psychopathic manipulation at work. In C.B. Gacono (Ed.), *The clinical and forensic assessment of psychopathy: A practitioner's guide* (pp. 287-311). Mahwah, NJ: Erlbaum.
- Babiak, P., Neumann, C.S., & Hare, R. D. (2010). Corporate psychopathy: Talking the walk. *Behavioral Sciences and the Law, 28*, 174-193.
- Ballard, R. (1992). Short forms of the Marlowe-Crowne social desirability scale. *Psychological Reports, 71*, 1155-1160.
- Barker, T., & Carter, D. (1990). Fluffing up the evidence and covering your ass: Some conceptual notes on policy lying. *Deviant Behavior, 11*, 61-73.
- Bishopp, D., & Hare, R. D. (2008). A multidimensional scaling analysis of the Hare PCL-R:
- Cleckley, H. (1976). *The mask of sanity*. St. Louis: Mosby.

Cornell, D. G., Warren, J., Hawk, G., Stafford, E., Oram, G., & Pine, D. (1996). Psychopathy in reactive and violent offenders. *Journal of Consulting and Clinical Psychology, 64* (4),

783-790.

Costa, P.T., & McRae, R. R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO*

Five Factor Inventory (NEO-FFI): Professional Manual. Odessa, FL: Psychological Assessment Resources.

Costa, P.T., & Widiger, T. A. (2002). *Personality Disorder and the Five Factor Model of Personality* (2nd ed). Washington, DC: American Psychological Association.

DeLisi, M. (2009). Psychopathy is the unified theory of crime. *Youth Violence and Juvenile Justice, 7*(3), 256-273.

DePaulo, B. M., & Kashy, D. A. (1998). Everyday lies in close and casual relationships.

Journal of Personality and Social Psychology, 74, 63-79.

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), 979-995.

Derefinko, K. J., & Lynam, D. R. (2006). Convergence and divergence among self-report psychopathy measures. A personality-based approach. *Journal of Personality Disorders, 20*, 261-280.

Dike, C. C., Baranoski, M., and Griffin, E. E. H. (2005). Pathological lying revisited. *Journal of the American Academy of Psychiatry and the Law, 33*, 342-349.

Ekman, P. (1991). *Telling lies: Clues to deceit in the marketplace, politics, and marriage*.

New York: W.W. Norton.

Engels, R. C. M. E., Finkenauer, C., & van Kooten, D. C. (2006). Lying behavior, family functioning and adjustment in early adolescence. *Journal of Youth Adolescence*, *35*, 349-358.

Ennis, E., Vrij, A., & Chance, C. (2008). Individual differences and lying everyday life. *Journal of Social and Personal Relationships*, *25*(1), 105-118.

Falkenbach, D., Poythress, N., Falki, M., & Manchak, S. (2007). Reliability and validity of two self-report measures of psychopathy. *Assessment*, *14*, 341-350.

Feldman, R. S., Tomasian, J. C., & Coats, E. J. (1999). Nonverbal deception abilities and adolescents' social competence: Adolescents with higher social skills are better liars. *Journal of Nonverbal Behaviors*, *23*(3), 237-249.

First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B. W. (1997). *Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I)- Clinical Version: Administration booklet*: Washington, DC: American Psychiatric Publishing.

Ford, C. V., King, B. H., & Hollender, M. H. (1988). Lies and liars: Psychiatric aspects of prevarication. *American Journal of Psychiatry*, *145*(5), 554-562.

Fulton, J. J., Marcus, D. K., & Payne, K. T. (2010). Psychopathic personality traits and risky sexual behavior in college students. *Personality and Individual Differences*, *49*, 29-33.

Fulton, J. J., Marcus, D. K., & Zeigler-Hill, V. (2014). Psychopathic personality traits, risky sexual behavior, and psychological adjustment among college-age women. *Journal of Social and Clinical Psychology*, *33*(2), 143-168.

Gaughan, E., Miller, J., Pryor, L., & Lynam, D. (2009). Comparing two alternative measures of general personality in the assessment of psychopathy: A test of the NEO PI-R and the

MPQ. *Journal of Personality*, 77, 965-996.

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.

Grover, S. L. (2010). Lying to bosses, subordinates, peers, and the outside world: Motivations and consequences. *Insidious workplace behavior*, Routledge/Taylor and Francis Group, New York, 207-235.

Halevy, R., Shalvi, S., & Verschuere, B. (2014). Being honest about dishonesty: Correlating self reports and actual lying. *Human Communication Research*, 40, 54-72.

Hancock, J. T., Toma, C., Ellison, N. (2007). The truth about lying in online dating profiles. *Online representations of self*, April, 449-452

Hare, R. D. (1980). A research scale for the assessment of psychopathy in criminal populations. *Personality and Individual Differences*, 1, 111-119.

Hare, R. D. (1991). *The Hare Psychopathy Checklist-Revised*. Toronto, ON: Multi-Health Systems.

Hare, R. D. (1993). *Without conscience: The disturbing world of the psychopaths among us*. New York: Simon & Schuster.

Hare, R. D. (2003). *Manual for the Revised Psychopathy Checklist (2nd edn)*. Toronto, ON: Multi-Health Systems.

- Hare, R. D., Clark, D. M., Grann, M., & Thornton, D. (2000). Psychopathy and the predictive validity of the PCL-R: An international perspective. *Behavioral Sciences and the Law*, *18*, 623-645.
- Hare, R.D., Cox, D. N., & Hart, S. D. (1989). PCL-SV *scoresheet*. Unpublished measure, University of British Columbia, Vancouver.
- Hare, R. D., Forth, A. E., & Hart, S. D. (1989). The psychopath as a prototype for pathological lying and deception. In J.C. Yulle (Ed.), *Credibility Assessment* (pp.25-49). Norwell, MA: Kluwer Academic.
- Isenberg, A. (1973). Deontology and Ethics of Lying. In *Aesthetics and Theory of Criticism: Selected Essays of Arnold Isenberg* (pp.245-264). Chicago: University of Chicago Press.
- Jang, S. A., Smith, S., & Levine, T. (2002). To stay or to leave? The role of attachment styles in communication patterns and potential termination of romantic relationships following discovery of deception. *Communication Monographs*, *69*(3), 236-252.
- Jensen, L.A., Arnett, J. J., Feldman, S. S., & Cauffman, C. (2004). The right way to do wrong: Lying to parents among adolescents and emerging adults. *Journal of Youth and Adolescence*, *33*(2), 101-112.
- Jones, S. E., Miller, J. D., & Lynam, D. R. (2011). Personality, antisocial behavior, and aggression: A meta- analytic review. *Journal of Criminal Justice*, *39*, 329-337.
- Jones, S., & Miller, J. D. (2012). Psychopathic traits and externalizing behaviors: A comparison of self- and informant reports in the statistical prediction of externalizing behavior. *Psychological Assessment*, *24*(1), 255-260.

- Kashy, D., & DePaulo, B. (1996). Who lies? *Journal of Personality and Social Psychology*, 70(5), 1037-1051.
- Kimonis, E. R., Tatar II, J. R., & Cauffman, E. (2012). Substance-related disorders among juvenile offenders: What role do psychopathic traits play? *Psychology of Addictive Behaviors*, 26(2), 212-225.
- Klaver, J.R., Lee, Z., Spidel, A., & Hart, S. D. (2009). Psychopathy and deception using indirect measures. *Legal and Criminal Psychology*, 14, 171-182.
- Lilienfeld, S. O., & Andrews, B. P. (1996). Development and preliminary validation of a self report measure of psychopathic personality traits in noncriminal populations. *Journal of Personality Assessment*, 66, 488-524.
- Lynam, D. R., Whiteside, S., & Jones, S. (1999). Self-reported psychopathy: A validation study: *Journal of Personality Assessment*, 73, 110-132.
- Lynam, D. R., Gaughan, E. T., Miller, J. D., Miller, D. J., Mullins-Swealt, S., & Widiger, T. A. (2011). Assessing the basic traits associated with psychopathy. Development and validation of the Elemental Psychopathy Assessment. *Psychological Assessment*, 23, 108-124.
- 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, 591-596.
- Metts, S. (1989). An exploratory investigation of deception in close relationships. *Journal of Social and Personal Relationships*, 6, 159-179.

- Miller, G. R., Mongeau, P. A., & Sleight, C. (1986). Invited article fudging with friends and lying to lovers: Deceptive communication in personal relationships. *Journal of Social and Personal Relationships*, 3, 495-512.
- Miller, J. D., & Lynam, D. R. (2003). Psychopathy and the five factor model of personality: A replication and extension. *Journal of Personality Assessment*, 81(2), 168-178.
- Miller, J. D., Gaughan, E. T., Maples, J., Gentile, B., Lynam, D. R., & Widiger, T. A. (2011). Examining the construct validity of the Elemental Psychopathy Assessment. *Assessment*, 18(1), 106-114.
- Miller, J. D., Jones, S. E., & Lynam, D. R. (2011). Psychopathic traits from the perspective of self and informant reports: Is there evidence for a lack of insight? *Journal of Abnormal Psychology*, 120(3), 758-764.
- Miller, J. D., Hyatt, C. S., Rausher, S., Maples, J. L., & Zeschner, A. (2014). A test of the construct validity of the elemental psychopathy assessment scores in a common sample of adult males. *Psychological Assessment*, 26(2), 555-562.
- Millon, T., & Davis, R. D. (1998). Ten subtypes of psychopathy. In T. Millon, E. Simonsen, M. Birket-Smith, & R. D. Davis (Eds.), *Psychopathy: Antisocial, criminal and violent behaviors* (pp.161-170). New York: Guilford.
- Neumann, C. S., Hare, R. D., & Newman, J. P. (2007). The super ordinate nature of the psychopathy checklist-revised. *Journal of Personality Disorders*, 21(2), 102-117.
- Paulhus, D. L., Neumann, C. S., & Hare, R. D. (in press). *Manual for the Hare Self-Report Psychopathy scale*. Toronto, Ontario, Canada: Multi-Health Systems.

Patrick, C. J. (2007). Antisocial personality disorder and psychopathy. In W. O'Donohue, K. A.

Fowler, & S. O. Lilienfeld (Eds.). *Personality disorders: Toward the DSM-V* (pp. 109-166). Thousand Oaks, California: Sage.

Petclerc, A. M., & Herve, H. F. (1999). *Deceptive Motivations: Coding Instructions*.

Unpublished Manuscript, University of British Columbia, Vancouver, Canada.

Phillips, M. C., Meek, S. W., & Vendemia, J. M. C. (2011). Understanding the underlying structure of deceptive behaviors. *Personality and Individual Differences, 50*, 783-789.

Pinel, P. (1801/1962). *A treatise on insanity* (D. Davis, Trans.). New York: Hafner.

Primoratz I. (1984). Lying and methods of ethics. *International Studies of Philosophy, 16*, 35-57.

Richards, H. J., Casey, J. O., Lucente, S. W., & Kafami, D. (2003). Differential association of male psychopathy checklist factor and facet scores to HIV risk behavior in incarcerated female substance abusers. *Individual Differences Research, 1*, 95-107.

Roig, M., & Caso, M. (2005). Lying and cheating: Fraudulent excuse making, cheating, and plagiarism. *The Journal of Psychology, 139* (6), 485-494.

Rogers, R., Johansen, J., Chang, J. J., & Salekin, R. T. (1997). Predictors of adolescent psychopathy: Oppositional and conduct-disordered symptoms. *Journal of the American Academy of Psychiatry and Law, 25*, 261-271.

Rogers, R., & Cruise, K. (2000). Malingering and deception among psychopaths. In C. B. Gacono (Ed.). *The clinical and forensic assessment of psychopathy: A practitioner's guide* (pp. 269-284). Mahwah, NJ: Lawrence Erlbaum.

- Ross, S. R., Lutz, C. J., & Bailey, S. E. (2004). Psychopathy and the five factor model in a noninstitutionalized sample: A domain and facet level analysis. *Journal of Psychopathology and Behavioral Assessment, 26*, 213-223.
- Schouten, D., & Silver, J. (2012). *Almost a psychopath: Do I (or does someone I know) have a problem with manipulation and lack of empathy?* Center City, Minnesota: Hazelden.
- Serota, K. B., Levine, T. R., & Boster, F. J. (2010). The prevalence of lying in America: Three studies of self-reported lies. *Human Communication Research, 36*, 2-25.
- Skeem, J. L., & Cooke, D. J. (2010). One measure does not a construct make: Directions toward reinvigorating psychopathy research---reply to Hare and Neumann. *Psychological Assessment, 22*(2), 455-459.
- Skeem, J. L., Miller, J. D., Mulvey, E., Tiemann, J., & Monahan, J. (2005). Using a five factor lens to explore the relation between personality trait and violence in psychiatric patients. *Journal of Consulting and Clinical Psychology, 73*, 454-465.
- Spidel, A. (2002). *The association between deceptive motivations and personality disorders in male offenders*. Unpublished master's thesis, University of British Columbia, Vancouver, Canada.
- Spidel, A., Herve, 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 Criminal Psychology, 16*, 335-347.
- Taylor, J., & Lang, A. R. (2006). Psychopathy and substance use disorders. In C. J. Patrick (Ed.), *Handbook of Psychopathy* (pp.495-511). New York, NY: Guilford Press.

Tooke, W., & Camire, L. (1991). Patterns of deception in intersexual and intrasexual mating strategies. *Ethology and Sociobiology*, *12*, 345-364,

Umphress, E. E., Run Ren, L., Bingham, J. B., Itir Gogus, C. (2009). The influence of distributive justice on lying for and stealing from a supervisor. *Journal of Business Ethics*, *86*(4), 507-518.

Walsh, Z., Swogger, M. T., & Kosson, D. S. (2009). Psychopathy and instrumental violence: Facet level relationships. *Journal of Personality Disorders*, *23*(4), 416-424.

Walton, K. E., Roberts, B. W., Krueger, R. F., Blonigen, D. M., & Hicks, B. M. (2008). Capturing abnormal personality with normal personality inventories: An item response theory approach. *Journal of Personality*, *76*, 1623-1647.

Widiger, T., & Lynam, D. (1998). Psychopathy and the five-factor model of personality. In T. Millon, E. Simonsen, M. Birket-Smith, & R. D. Davis (Eds.), *Psychopathy: Antisocial, criminal, and violent behaviors* (pp. 171-187). New York, NY: Guilford.

Wilson, L., Miller, J. D., Zeichner, A., Lynam, D. R., & Widiger, T. A. (IN PRESS). Testing the validity of the Elemental Psychopathy Assessment: Relations with other psychopathy measures, aggressions, and externalizing behaviors. *Journal of Psychopathology and Behavioral Assessment*.

Wordworth, M., & Porter, S. (2002). In cold blood: Characteristics of criminal homicides as a function of psychopathy. *Journal of Abnormal Psychology*, *111*(3), 436-445.

Appendices

Appendix A: Self-Reported Deception Scale

Self-Reported Deception Scale

The following statements deal with how you have behaved in the past, Please read each item carefully and fill in the bubble on the bubble sheet that best corresponds to the extent you done the following. If you **never have done the following** blacken **1**, if you **rarely have done the following** blacken **2**, if you **sometimes have done the following** blacken **3**, if you **frequently have done the following** blacken **4**. There are no right or wrong answers, and you need not be an expert to complete this questionnaire

1. How often do you lie to a close friend or family member?

1	2	3	4
Never	Rarely	Sometimes	Frequently

2. How often do you lie to a boss or professor?

1	2	3	4
Never	Rarely	Sometimes	Frequently

3. How often do you lie just because you feel like it?

1	2	3	4
Never	Rarely	Sometimes	Frequently

4. How often do you lie to law enforcement to get out of a difficult situation?

1	2	3	4
Never	Rarely	Sometimes	Frequently

5. How often do you lie to a romantic partner?

1	2	3	4
Never	Rarely	Sometimes	Frequently

1. How often do you lie to a stranger in a typical daily interaction?

1	2	3	4
Never	Rarely	Sometimes	Frequently

Appendix B: Duping Delight Scale

Duping Delight Scale

The following statements deal with how you have feel about certain activities relating to deception. Please read each item carefully and fill in the bubble on the bubble sheet that best corresponds to how you feel regarding various statements surrounding lies. If you **never feel a certain way** blacken **1**, if you **rarely feel a certain way** blacken **2**, if you **sometimes feel a certain way** blacken **3**, if you **frequently feel a certain way** blacken **4**. There are no right or wrong answers, and you need not be an expert to complete this questionnaire

*- Based on Ekman (1991); Rogers and Cruise (2000), and PCL-SV; (Hare, Cox, & Hart, 1996)

1. How often do you get positive feelings out of telling a lie?

1	2	3	4
Never	Rarely	Sometimes	Frequently

2. How often do you feel a sense of accomplishment by lying to another person and having them believe you?

1	2	3	4
Never	Rarely	Sometimes	Frequently

3. How often do you get a sense of excitement or anticipation when thinking about telling a lie?

1	2	3	4
Never	Rarely	Sometimes	Frequently

4. How often do you feel a sense of “contempt” towards the target of your lies?

1	2	3	4
Never	Rarely	Sometimes	Frequently

5. How often do you put extra effort into lying or deceiving someone who is thought to be difficult to deceive?

1	2	3	4
Never	Rarely	Sometimes	Frequently

6. How often do you increase your deceptive behavior if you had an audience watching and enjoying your performance?

1	2	3	4
Never	Rarely	Sometimes	Frequently

2. How often do you tell an unlike story, but be able to make it sound convincing?

1	2	3	4
Never	Rarely	Sometimes	Frequently

3. How often do you alter a statement when challenged?

1	2	3	4
Never	Rarely	Sometimes	Frequently

4. How often do you deceive others with self-assurance and little or no anxiety?

1	2	3	4
Never	Rarely	Sometimes	Frequently

5. How often do you falsely project blame onto others just because?

1	2	3	4
Never	Rarely	Sometimes	Frequently

Appendix C: IRB Approval Letter

8/7/2013

RESEARCH INTEGRITY AND COMPLIANCE
Institutional Review Boards, FWA No. 00001669
12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4799
(813) 974-5638 • FAX (813) 974-7091

Jason Dobrow, M.A. University of South Florida Department of
Criminology 4204 E. Fowler Avenue Tampa, FL 33620

RE: Exempt Certification IRB#: Pro00013736 Title: The relationship
between individual levels of psychopathic traits and lying and deception.

Study Approval Period: 8/7/2013 to 8/7/2018

Dear Mr. Dobrow:

On 8/7/2013, the Institutional Review Board (IRB) determined that your research meets USF requirements and Federal Exemption criteria as outlined in the federal regulations at 45CFR46.101(b):

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Accepted Item(s): Consent Document(s): [Online Assent Revised Clean 8/4](#)

As the principal investigator for this study, it is your responsibility to ensure that this research is conducted as outlined in your application and consistent with the ethical principles outlined in the Belmont Report and

with USF IRB policies and procedures. Please note that changes to this protocol may disqualify it from exempt status. Please note that you are responsible for notifying the IRB prior to implementing any changes to the currently approved protocol.

The Institutional Review Board will maintain your exemption application for a period of five years from the date of this letter or for three years after a Final Progress Report is received, whichever is longer. If you wish to continue this protocol beyond five years, you will need to

submit a new application at least 60 days prior to the end of your exemption approval period. Should you complete this study prior to the end of the five-year period, you must submit a request to close the study.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

John Schinka, Ph.D., Chairperson USF Institutional Review Board