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Patterns of Attachment and Factors from The NEO PI-R as Predictors of Deviant Sexuality

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PATTERNS OF ATTACHMENT AND FACTORS FROM
THE NEO PI-R AS PREDICTORS OF
DEVIANT SEXUALITY

A Thesis

by

MICHELLE L. VARON

Submitted to the Graduate School of the
University of Texas-Pan American
In Partial fulfillment of the Requirements for the Degree of
MASTER OF ARTS

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PATTERNS OF ATTACHMENT AND FACTORS FROM
THE NEO PI-R AS PREDICTORS OF
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May 2010

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ABSTRACT

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Research has shown that both personality factors from the Big 5 personality model and underlying attachment dimensions are related to deviant sexuality. Over 500 primarily Hispanic undergraduate college students completed the NEO PI-R, The relationship scales questionnaire, and a deviant sexuality measure, which was a composite of attitudes, intentions and behaviors. A hierarchical regression analysis showed that conscientiousness and agreeableness, combined with the underlying attachment dimensions of avoidance and anxiety, are useful in predicting deviant sexuality.

DEDICATION

The completion of my thesis and Master of Arts degree would have been impossible without the love and support of my family. Thank you for all your encouragement, love and support.

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I will always be grateful to Dr. Darrin Rogers, chair of my thesis committee for all his guidance and support. I couldn't have done it without all of his encouragement and inexhaustible patience in answering my endless questions.

TABLE OF CONTENTS

	Page
ABSTRACT.....	iii
DEDICATION.....	iv
ACKNOWLEDGMENTS.....	v
TABLE OF CONTENTS.....	vi
LIST OF TABLES.....	vii
CHAPTER I. REVIEW OF LITERATURE.....	1
CHAPTER II. METHODOLOGY	11
CHAPTER III. RESULTS.....	15
CHAPTER IV. DISCUSSION.....	17
REFERENCES.....	21
APPENDICES.....	28
BIOGRAPHICAL SKETCH.....	36

LIST OF TABLES

	Page
Table 1: Hierarchical Multiple Regression Analyses Predicting Deviant Sexuality From Personality and Attachment Dimensions.....	25
Table 2: Summary of Correlations for Scores on the Major Study Variables.....	26
Table 3: Psychometric Properties of the Major Study Variables.....	26
Table 4: Reliability of the Major Study Variables.....	27

CHAPTER I

REVIEW OF LITERATURE

Sexual offense is a vital area of study because of the significant impact that the offenses have on the lives of the victims (Paolucci & Genius, 2001). There is a vast amount of literature examining the effects that experiencing some type of sexual assault/abuse has. In multiple studies, sexual abuse has been found to be linked to an increased risk of negative psychological consequences including but not limited to, higher levels of psychological distress, a greater risk of developing depression, anxiety, and personality disorders, higher rates of suicide attempts and self mutilating behaviors, greater risk of substance abuse and difficulties in interpersonal relationships (Polusny & Follette, 1995). These negative consequences illuminate the importance of developing strategies to better understand and potentially prevent sexual offenses from occurring.

There has been a plethora of research studies regarding the lives of sex offenders, in search of the underlying factors that lead to and perpetuate offending behaviors. However, research on the topic of sex offenders is still ongoing, and there has yet to be widespread agreement on one overarching theory to fully explain sex offending. The current study will examine a proposed framework to help explain deviant sexuality using attachment styles and Big 5 personality factors.

The concept behind the present study is that an integration of personality and attachment factors may help add to our current understanding of the experiences of individuals with high levels of deviant sexuality. For the present study, deviant sexuality will be operationally defined as the extent to which an individual's sexual attitudes, intentions, and behaviors are associated with violating others' personal boundaries and rights. The purpose of this study is to address the research question: Does any specific pattern of attachment style and personality traits predict deviant sexuality? This question is significant because knowledge of which patterns of personality and attachment dimensions predict a person's level of deviant sexuality, may assist in the treatment and/or prevention of sexual offenses.

Deviant Sexuality and Personality

The Big 5 model argues that personality is made up of differing levels of five personality traits or factors (McCrae, & John, 1992). The factors are: neuroticism, extraversion, agreeableness, conscientiousness and openness to experience. The factors of interest include, neuroticism, conscientiousness, and agreeableness. Neuroticism is defined by anxiety, self pity, tension, touchiness, instability, worry and impulsivity. Agreeableness is defined by being appreciative, forgiving, generous, kind, sympathetic and trusting. Conscientiousness is defined by being efficient, organized, planful, reliable, responsible and thorough. (McCrae, & John, 1992). The NEO PI-R is a personality assessment used to assess personality according to the five factor model of personality.

This model has been found to be cross culturally valid, and the NEO PI-R is one of the most widely used measures of personality.

The five factor model has been applied to sex offenders in order to evaluate if any combination of the trait levels are unique to sex offenders. Using the NEO PI-R, Dennison, Stough and Brigden, (2001) found that incarcerated sex offenders had higher levels of neuroticism than incarcerated non sex offenders. One of the characteristics of neuroticism that may be related to deviant sexuality is impulsiveness (McCrae, & John, 1992). The facet of impulsiveness in neuroticism ties in with the notion of disinhibiting traits, which have commonly been found to occur in individuals exhibiting antisocial behavior (Kreuger, Markon, Patrick, Benning, & Kramer, 2007). Antisocial behavior is impulsive actions with no regard for the rights of others or adherence to social norms (American Psychiatric Association [*DSM-IV-TR*], 2000). This definition is strikingly similar to the definition of sexually deviant behavior. There is considerable overlap between antisocial behavior and sexually deviant behavior, suggesting that the elements of personality linked to antisocial behavior, may also be linked to sexually deviant behavior.

There is empirical evidence that shows that incarcerated sex offenders have lower levels of conscientiousness than incarcerated non sex offenders (Dennison, Stough & Brigden, 2001). It appears that low levels of conscientiousness may be related to deviant sexuality, in that a person with low levels of conscientiousness, would likely behave unethically, and be unable to control their own impulses to achieve gratification. This type of behavior is similar to the type of behavior exhibited by sexual offenders, which is by definition gratifying to the offender and unethical.

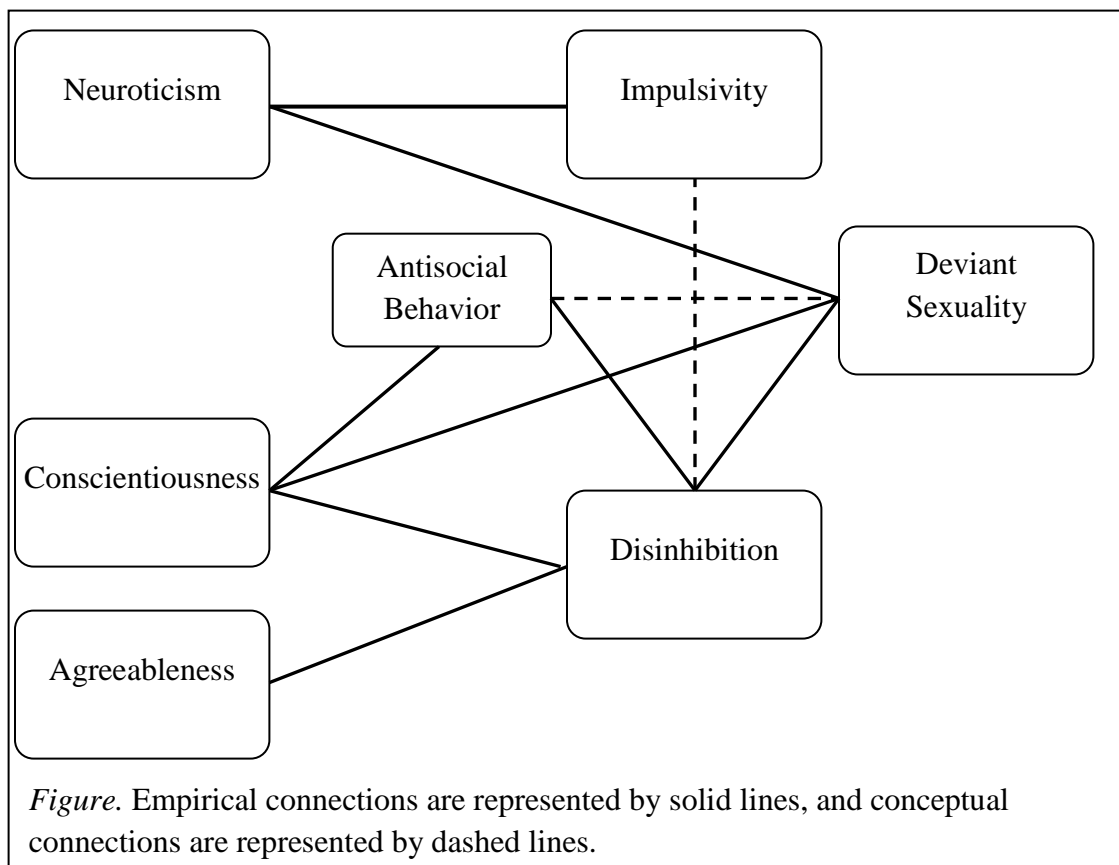
Low levels of conscientiousness have been found to be correlated with exhibiting antisocial behavior (Miller & Lynam 2001). This empirical evidence may demonstrate another correlation between conscientiousness and deviant sexuality in that deviant sexuality may be a form of antisocial behavior. More specifically, it appears that the linkage may be attributed to impulsivity being an element of deviant sexuality, antisocial behavior and conscientiousness.

Antisocial behavior problems have also commonly been found to occur in individuals demonstrating disinhibiting personality traits (Kreuger, Markon, Patrick, Benning, & Kramer, 2007). Disinhibiting personality traits are those personality traits that serve as influences that defeat a person's constraints against behaving in a certain way. In a study examining the structure of personality, it was found that conscientiousness and agreeableness combined comprise a superordinate trait of disinhibition (Markon, Kreuger, & Watson, 2005). This is further evidence of the relationship between conscientiousness and antisocial behavior. The component of disinhibiting personality factors is worth noting because disinhibiting influences have been found to play an important role in sex offending, in terms of facilitating sexual offenders in committing abusive acts (Marshall & Marshall, 2000). All this taken into account, it seems highly likely that low levels of conscientiousness are associated with deviant sexuality.

Agreeableness was also of interest in predicting deviant sexuality. The personality factor agreeableness appears to be related to sexual deviance by virtue of its descriptors. Individuals with high levels of agreeableness would likely be appreciative, forgiving, generous, kind, sympathetic and trusting. These characteristics don't appear to coincide

with sexually deviant behavior, which is completely in violation of the rights of others, and thus might be seen as the opposite of being agreeable. Furthermore, agreeableness seems to be linked to sexual deviance by way of disinhibition. Agreeableness and conscientiousness combined have been found to make up the trait of disinhibition (Markon, Kreuger, & Watson, 2005). As previously mentioned, disinhibition has been found to play an important part in sex offending (Marshall & Marshall, 2000). For a visual representation of the network of conceptual and empirical connections between personality and deviant sexuality see figure.

Personality factors have also been found to be useful in predicting significant life outcomes such as mortality, divorce and success in work, (Roberts, Kuncel, Shiner, Caspi, Goldberg, 2007). This suggests that personality plays a part in the types of behaviors that individuals participate in. Therefore, the previously discussed five factor model of personality may be of use in helping to understand deviant sexuality.



Deviant Sexuality and Attachment

Attachment has been studied extensively by a variety of researchers focusing both on adult and childhood styles. John Bowlby began work on developing the construct of attachment in the 1950s and since then (Bowlby, 1969), it has been expanded extensively and widely applied. According to Bowlby (1973), individuals develop internal working models of attachment that influence an individual's perception of others and of themselves in the world. Using these internal working models, individuals predict whether others will be available to them in times of need and whether or not they are worthy of love and attention from others.

Attachment styles have been defined in several ways. Griffin & Bartholomew (1994) developed a four category defining attachment styles as secure, preoccupied, dismissing, and fearful. Griffin and Bartholomew argue that these categories are prototypes of attachment styles, of which individuals may vary to differing degrees. Each attachment style is defined by the degree to which an individual's internal models of the self and others are positive or negative. Griffin & Bartholomew (1994) described these dimensions as avoidance (negativity of the "self" model) and anxiety (negativity of the "other" model). Within this conceptualization, the secure style of attachment is the combination of low levels of anxiety and avoidance, or positive models of self and other. The preoccupied style of attachment is the combination of high levels of anxiety and low levels of avoidance, or positive model of other and negative model of self. The dismissing style is a combination of high levels of avoidance and low levels of anxiety, or negative model of other and positive model of self. The fearful style of attachment is a combination of high levels of avoidance and high levels of anxiety, or negative models of

self and other. Studies have shown that there is evidence for the stability of relationship attachment styles from infancy to adulthood as long as there are no monumental environment changes (Waters, Merrick, Treboux, Crowell & Albersheim, 2000). There is also evidence that the development of adult relationships is affected by early relationship experiences (Waters & Cummings, 2000). This coherence of attachment styles supports the measurement of adult attachment style and its relationship to childhood attachment style. Therefore it appears that using a scale that measures adult attachment in romantic relationships—versus a measure of childhood attachment—is appropriate for the current study because adult attachment is thought to be related to the attachment style developed early in life (Mickelson, Kessler, & Shaver, 1997).

In addition to the various etiological theories of sexual offending that exist, there are also multiple variables that have been associated with deviant sexuality. One variable often associated with sexual offending is whether the offender has experienced sexual abuse. However, Spaccarelli, Bowden, Coatsworth and Kim (1997) assessed the levels of sexual abuse experienced by incarcerated sex offenders versus nonsexual violent offenders and found no significant evidence to support the claim that sex offenders have disproportionately experienced sexual abuse. Their results showed that having experienced sexual abuse was a common experience among all the violent offenders in their sample. In other words, sexual abuse may be a predictor of general offending but not specifically sexual offending. Therefore, if sexual abuse alone is not enough to predict sexual offending, there must be other variables interacting or co-occurring with sexual abuse that lead to sexual offending. One approach to identifying other variables that lead to sexual offending is to look at the various factors that make up or contribute to

a sexually abusive home environment. Sexually abusive households tend to be characterized by very little nurturing and safety, which would consequently lead to insecure attachment by definition (Burk & Burkhart, 2003). Furthermore, families that provide little nurturance tend to be characterized by high levels of instability and fail to establish emotional bonds between parent and child, and have been found to produce sexually abusive behavior (Barbaree & Langton, 2006; Burgess, Hartman & McCormack, 1987). This appears to support the assertion that insecure attachment contribute to sexual deviance in combination with sexual abuse.

Various studies have examined attachment styles in sex offenders. One such study by Smallbone & Dadds (1998) was one of the first to show that a large portion of sex offenders have been classified as having insecure childhood attachments, and that sexual offenders may be more likely to be insecurely attached as adults than nonsexual offenders. Using a population of incarcerated individuals, they assessed the attachment styles of 48 sex offenders, 16 property offenders, and 16 non offenders. This study identified a disproportionate frequency of rapists reporting experiencing violence and abuse in their childhoods coming from their fathers. The researchers of this study concluded that this experience of childhood violence and abuse could contribute to the sex offenders' expectation that they were unworthy of emotionally close relationships. This study clearly suggested that some men may be placed at risk of committing certain offenses as a result of insecure attachment experiences early in life. Smallbone and Dadds (2000) later extended their previous study and found significant negative correlations between secure attachment and coercive sexual behavior, antisociality and

aggression. This finding suggests the possibility of a pathway between low levels of secure attachment and antisociality and subsequently to deviant sexuality.

In 2004, Schachner and Shaver found that avoidant attachment was negatively correlated with having sex to express emotional value for one's partner or to foster intimacy. It seems likely then, that sex offenders, specifically rapists and violent offenders, would be classified as having insecure attachment. There were similar findings in another study assessing attachment style in sex offenders. Ward, Hudson, and Marshall (1996) found that sex offenders, specifically rapists were more likely to have a dismissive attachment style than other types of sex offenders such as child molesters. The evidence is strong that attachment plays some part in sexual offenders' development. Given the previously discussed research on sex offenders, the present study aims to build upon and integrate the various findings. The past literature shows that attachment style or personality factors alone are not enough to account for sexually deviant behavior (Burk, & Burkhart, 2003).

Personality and Attachment

In regards to personality, attachment style has been found to mediate the relationship between some personality dysfunctions and family environment (Riggs, Sahl, Greenwald, Atkinson, Paulson, & Ross, 2007). More specifically, attachment was found to be related to the five factor model in that securely attached individuals had higher levels of extraversion and openness to experience and lower levels of neuroticism. Conscientiousness and agreeableness were not found to be related to attachment security (Hagekull, & Bohlin, 2003).

The current study combined the underlying dimensions of attachment styles with personality characteristics under the assumption that these two variables combined would be stronger in predicting deviant sexuality than they would be independently. The proposed hypothesis was that the combination of high levels of avoidance and anxiety and low levels of agreeableness and conscientiousness, along with high levels of neuroticism, would predict high levels of deviant sexuality. More specifically, hypothesis 1 is that personality factors influence deviant sexuality, and hypothesis 2 is that after accounting for the effects of personality variables, the underlying dimensions of attachment (anxiety and avoidance) will predict the endorsement of deviant sexuality.

CHAPTER II

METHODOLOGY

Participants

Participants included 580 individuals recruited from undergraduate classes from the University of Texas Pan American. The age of the participants ranged from 17 to 57 years old, with a median age of 21. The participants included 418 females (72%) and 162 males (28%). All participants received extra credit in undergraduate psychology courses for participating in the study. Of the 580 participants, 415 reported being of Hispanic heritage, 12 of European American heritage, 2 of African American Heritage and 10 of other heritage.

Measures

The questionnaires included the NEO PI-R, The Relationship Scales Questionnaire (RSQ), the deviant sexuality factor from the Kaufman sexual fantasy scale (SFQD), a modified form of the sexual history form (SHF-R), and the attraction to sexual aggression scale, shortened for this study (ASA; see Appendices A-C). The NEO-PI-R was used to assess the five factor model of personality, and a score for each of the five factors was calculated. The NEO-PI-R has been shown to have high levels of reliability ranging from .86 to .92 for each of the domain scales (Weiner & Greene, 2008).

The Relationship Style Questionnaire (RSQ), developed by combining information from Collins and Read's (1990) Adult attachment scale, Hazan and Shaver's

(1987) attachment measure, and Bartholomew and Horowitz's (1991) relationship questionnaire, was used to assess romantic attachment styles (Hazan, & Shaver, 1987). This measure was chosen because, unlike most attachment measures that provide only a categorical rating, it provides both a categorical and a dimensional attachment rating of four attachment categories: secure, fearful, preoccupied and dismissing (Griffin & Bartholomew, 1994). More importantly, this scale can be used to assess an individual's level of anxiety and avoidance, dimensions underpinning these attachment styles (Hazan & Shaver, 1987). For the present study, the dimensional ratings of anxiety and avoidance were used in order to prevent the loss of information that results from categorizing individuals into arbitrary groups. When only categorical attachment ratings are calculated, all information about the variability within the categories is lost (Griffin & Bartholomew, 1994).

Furthermore, it is likely that many participants would not exclusively fit into any of the four categories of attachment, thus the dimensional rating may provide more meaningful results than categorical ratings alone. The RSQ has been found to have convergent validity both in the categorical measure and in the dimensional measure, when analyzed using 153 participants and compared to Bartholomew & Horowitz's (1991) Relationship Questionnaire (Griffin & Bartholomew 1994). In another analysis, the RSQ was found to be correlated with the Adult attachment scale (Collins & Read 1990), and determined to be a psychometrically sound measure of attachment (Kurdek, 2002).

Participants' attitudes toward deviant sexuality were measured by the deviant fantasy subscale of Kaufman's sexual fantasy questionnaire (SFQ; Kaufman, K. L.,

1993b; Daleiden, Kaufman, Hilliker, & O'Neil 1998). This scale was chosen in order to assess the frequency and type of sexually deviant fantasies experienced by the individuals in the sample. All subscales from the Sexual Fantasies Questionnaire have been found to have alpha coefficients ranging from .79 to .98 (Daleiden et al., 1998).

Applicable items from Malamuth's (1989a, 1989b) attraction to sexual aggression scale were also included. Participants' intentions to engage in sexually deviant behavior were assessed with items from the ASA that ask participants to rate their likelihood of engaging in deviant sexual behaviors. Participants' self-reported history of engaging in deviant sexual behavior was assessed with a modified version of the sexual history form (SHF; Kaufman, K. L. 1993b; Daleiden, et al. 1998).

Outcome measures

For this study, deviant sexuality was calculated on a continuum that included attitudes, intentions and behavior. The intuitive idea that attitudes precede intentions, which may then lead to behaviors, was formalized in Ajzen's widely-applied theory of planned behavior (1991). In other words, an initial attitude towards deviant sexuality may develop into an intention to behave in a deviant manner, which may then lead to the actual display of the deviant behavior. The rationale for using a continuum to quantify the varying levels of deviant sexuality is the notion that sexually deviant attitudes, intentions and behavior indicate increasing levels of severity of deviance from societal sexual norms.

The deviant sexuality scores were created by combining questions about deviant sexual fantasies from Kaufman's sexual fantasy questionnaire (SFQ; Kaufman, K. L., 1993b; Daleiden, Kaufman, Hilliker, & O'Neil 1998), the attraction to sexual aggression

questionnaire (ASA; Malamuth, N.M., 1989a, 1989b) and a modified form of the sexual history form (SHF; Kaufman, K. L. 1993b; Dalieden, et al. 1998). The included items from the ASA were weighted to imply the increased seriousness of deviant sexual intentions compared to attitudes; the items from the SHF were correspondingly weighted even more heavily. The resulting scale scores were strongly positively skewed, due to the fact that fewer participants endorsed deviant sexual intentions than attitudes, and fewer still reported engaging in deviant sexual behaviors. The scale scores were transformed with a Box-Cox power transformation to remove skew. (D.L. Rogers, personal communication, March 1, 2010).

CHAPTER III

RESULTS

Data collection yielded 580 cases. Seventy-nine cases were excluded from data analysis, as they were found to have invalid patterns of responding, leaving 501 cases. A hierarchical regression analysis was used to assess whether personality factors and attachment dimensions could be used to predict the endorsement of deviant sexuality. Regression model 1 examined the predictive ability of the personality variables of interest which included neuroticism, agreeableness, and conscientiousness. Hypothesis 1 (personality factors influence deviant sexuality) was tested using model 1 (see Table 1) of the hierarchical regression analysis. This model specified the personality variables of interest as predictors of endorsement of deviant sexuality. The results of model 1 supported the hypothesis and showed that personality variables accounted for 8% of the variance in sexual deviance ($R^2 = .078, p < .001$).

Hypotheses 1(a), 1(b), and 1(c) concerned the ability of neuroticism, agreeableness, and conscientiousness, respectively to predict deviant sexuality. The first was not supported in model 1 ($\beta = .01, p > .05$), but the effects of agreeableness ($\beta = -.20, p < .001$) and conscientiousness ($\beta = -.14, p < .01$) were statistically significant. The statistical significance of these three effects was unchanged when the variables were entered in model 2 (see below).

Hypothesis 2 stated that, after accounting for the effects of personality variables, the underlying dimensions of attachment (anxiety and avoidance) would predict the endorsement of deviant sexuality. The results of model 2 supported hypothesis 2 (see Table 1) and showed that attachment accounted for an additional 4% of the variance in deviant sexuality, over and above the predictive ability of the personality variables ($R^2=.11$, $\Delta R^2= .04$, $p< .001$). Hypothesis 2(a) and 2(b) concerned ability of the anxiety and avoidance dimensions of adult attachment to predict deviant sexuality. Both were statistically significant in model 2 ($\beta=.11$, $p< .05$; $\beta=.13$ $p< .05$; respectively).

Reliability for the measures included was assessed using Cronbach's alpha (see Table 4). Cronbach's alpha was not assessed for the deviant sexuality measure, because its construction did not clearly assume unidimensionality. Combining measures of attitudes, intentions, and behaviors resulted in widely different rates of endorsement for the individual items that comprise the scale, a situation that further contraindicates the use of Cronbach's alpha to measure unidimensionality. Correlations were calculated for all variables included in the regression analysis (see table 2).

CHAPTER IV

DISCUSSION

The results of the present study were that personality factors and the underlying dimensions of attachment security are associated with the endorsement of deviant sexuality. Hypothesis 1, which stated that personality factors influence deviant sexuality, was partially supported. Agreeableness and conscientiousness were both statistically significant in predicting deviant sexuality; contrary to previous research, neuroticism was not. The latter contradictory finding could be due to the nature of the sample used. Dennison, Stough and Brigden, (2001) found high levels of neuroticism to be associated with sex offenders. However, their sample was composed solely of incarcerated individuals, which meant that deviant sexuality was defined by behavior. By contrast, the present study assessed deviant sexuality in a general (i.e., predominantly behaviorally nondeviant) sample using a combination of self-reported attitudes, intentions and behavior, with behavior being the least frequently-reported type of deviance. Therefore, a potential explanation for the lack of an association between neuroticism and deviant sexuality in this study is that neuroticism may be associated more with sexually deviant behavior than with sexually deviant attitudes and intentions.

There has been little research examining the relationship between agreeableness and deviant sexuality. Agreeableness has been investigated indirectly by way of disinhibition, a superordinate trait subsuming agreeableness and conscientiousness

(Markon, Kreuger, & Watson, 2005). The findings of the present study are therefore in agreement with previous literature on agreeableness and conscientiousness, and lend support for the role that disinhibition plays in deviant sexuality. In regards to agreeableness and conscientiousness, the results support the hypothesis that personality factors are useful in predicting deviant sexuality.

Hypothesis 2 stated that after accounting for the effects of personality variables, the underlying dimensions of attachment (anxiety and avoidance) would predict the endorsement of deviant sexuality. This hypothesis was fully supported, in agreement with previous research on attachment styles and deviant sexuality (Smallbone & Dadds 1998; 2000). It appears therefore that the underlying dimensions of attachment do in fact play a part in predicting deviant sexuality. More specifically, insecure attachment styles (those characterized by high levels of anxiety and or avoidance), appear to be predictors of deviant sexually. In other words, this link could be in part due to the fact that the internal working model that one develops about how relationships work affects the development of one's ideas of what constitutes sexuality.

Implications

This study adds to the literature on factors that are correlated with deviant sexuality. Identifying such factors could aid in more effectively matching particular rehabilitation approaches to individual sex offenders or improving methods of identifying individuals at risk for future sexual aggression. Additionally, this study points out the need to look at interventions that focus on modifying unhealthy attachment and personality patterns. For example, interventions in childhood targeting insecure attachment might serve to prevent the development of deviant sexuality that can lead to

sexual offenses. The value of attachment and personality in predicting deviant sexuality could also be put to use in screening tools that are used in facilities that provide special services such as daycare centers and schools.

Limitations

One limitation of the current study is that it is correlational in nature. As a result of this, causation cannot be implied based on the findings. One could argue that if a person has a specific pattern of attachment style and certain levels of neuroticism, conscientiousness, and agreeableness, they would be more likely to endorse sexually deviant thoughts or behaviors. However, one could not conclude that it is that specific pattern that caused the sexually deviant thoughts or behaviors. It is a real possibility that there are other factors that were not taken into account that are the actual causal factors.

Another limitation is that endorsement of sexual behaviors or thoughts may have been affected by social desirability. There may be a common factor among people who choose to answer truthfully on those questions versus people who answer in socially acceptable ways, or choose to skip the questionnaire altogether. Although 89% of participants received a score other than zero on the deviant sexuality index, this was primarily due to the endorsement of attitudes alone. Only 15% of individuals admitted to deviant intentions, and even fewer—6.6%—admitted to participating in sexually deviant behavior. Finally, the results found in this study may not be easily replicated in other populations because of the fact that the sample used was comprised of only college students who were predominantly Hispanic. It is possible that a Hispanic American cultural background and having or seeking a college education are confounding variables affecting the prevalence or endorsement of sexually deviant thoughts and behaviors.

Future directions

Future research should examine deviant sexuality in general populations in addition to studying previously-identified sexual offenders. Sex offenders represent only the most extreme expression of deviant sexuality, and selecting such individuals as research participants may not adequately represent the diagnostic usefulness of the factors being studied when applied to general populations. In other words, there may be characteristics specific to sex offenders that are mistakenly associated with all sexually deviant individuals, or which might not be useful in identifying individuals prone to deviant sexual behavior. Future studies should also use other forms of assessment such as interviews, behavioral observations or records reviews to see if any differences emerge when compared to self report measures. These methods may provide information that is missed using self-report measures. Longitudinal studies would also be beneficial. Researchers could examine the changes over time in attachment and personality, and whether these changes are accompanied by changes in levels of deviant sexuality.

Conclusions

The present study examined personality factors and attachment dimensions as predictors of deviant sexuality, using a hierarchical regression analysis. The results of the analysis demonstrated that both personality and attachment are useful in predicting deviant sexuality. Future research is necessary to further examine these factors, using different methods, as well as using different populations.

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Table 1

Hierarchical Multiple Regression Analyses Predicting Deviant Sexuality From Personality and Attachment Dimensions

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Neuroticism	.00	.00	.01	.00	.00	.01
Agreeableness	.00 ***	.00	-.20 ***	.00 ***	.00	-.20 ***
Conscientiousness	.00 **	.00	-.14 **	.00 **	.00	-.14 **
Anxiety				.05 *	.03	.11 *
Avoidance				.04 *	.02	.13 *
R^2			.08			.11
F for change in R^2			13.70 ***			9.51 ***

* $p < .05$. ** $p < .01$. *** $p < .001$

Table 2

Summary of Correlations for Scores on the Major Study Variables

	1	2	3	4	5	6
Deviant Sexuality	1	.14**	-.24**	-.20**	.19**	.21**
Neuroticism		1	-.30**	-.46**	.27**	.48**
Agreeableness			1	.28**	-.11*	-.13**
Conscientiousness				1	-.08**	-.25**
Anxiety					1	.59**
Avoidance						1

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

Table 3

Psychometric Properties of the Major Study Variables

	N	Mean	SD
Avoidance	494	2.40	.92
Anxiety	494	2.73	.59
Deviant Sexuality	495	.41	.27
Neuroticism	499	94.15	21.89
Agreeableness	499	111.90	18.36
Conscientiousness	499	114.60	19.97

Table 4

Reliability of the Major Study Variables

	Cronbach's Alpha	N
Anxiety	.82	5
Avoidance	.60	8
Neuroticism	.64	48
Agreeableness	.58	48
Conscientiousness	.60	48

APPENDIX A

APPENDIX A

Excerpt from Revised NEO Personality Inventory (NEO PI-R)

Paul T. Costa, Jr., Ph.D. and Robert R. McCrae, PhD.

This questionnaire contains 240 statements. Please read each item carefully and circle the one answer that best corresponds to your agreement or disagreement.

Circle "SD" if the statement is definitely false or if you **strongly disagree**.

SD D N A SA

Circle "D" if the statement is mostly false or if you **disagree**.

SD D N A SA

Circle "N" if the statement is about equally true or false, if you cannot decide, or if you are **neutral** on the statement.

SD D N A SA

Circle "A" if the statement is mostly true or if you **agree**.

SD D N A SA

Circle "SA" if the statement is definitely true or if you **strongly agree**.

SD D N A SA

There are no right or wrong answers, and you need not be an "expert" to complete this questionnaire. Describe yourself honestly and state your opinions as accurately as possible.

Answer every item. If you make a mistake or change your mind, make an "X" through the incorrect response and then draw a circle around the correct response.

1. I am not a worrier.	SD D N A SA
2. I really like most people I meet.	SD D N A SA
3. I have a very active imagination.	SD D N A SA
4. I tend to be cynical and skeptical of others' intentions.	SD D N A SA

5. I'm known for my prudence and common sense.	SD D N A SA
6. I often get angry at the way people treat me.	SD D N A SA
7. I shy away from crowds of people.	SD D N A SA
8. Aesthetic and artistic concerns aren't very important to me.	SD D N A SA
9. I'm not crafty or sly.	SD D N A SA
10. I would rather keep my options open than plan everything in advance.	SD D N A SA
11. I rarely feel lonely or blue.	SD D N A SA
12. I am dominant, forceful, and assertive.	SD D N A SA
13. Without strong emotions, life would be uninteresting to me.	SD D N A SA
14. Some people think I'm selfish and egotistical.	SD D N A SA
15. I try to perform all the tasks assigned to me conscientiously.	SD D N A SA
16. In dealing with other people, I always dread making a social blunder.	SD D N A SA
17. I have a leisurely style in work and play.	SD D N A SA
18. I'm pretty set in my ways.	SD D N A SA
19. I would rather cooperate with others than compete with them.	SD D N A SA
20. I am easy-going and lackadaisical.	SD D N A SA
21. I rarely overindulge in anything.	SD D N A SA

APPENDIX B

APPENDIX B

Relationship Scale Questionnaire

Please read each of the following statements and rate the extent to which you believe each statement best describes your feelings about close relationships. Write the number on the space provided, using the following rating scale

- | 1 | 2 | 3 | 4 | 5 |
|--------------------|---|------------------|---|--|
| Not at all like me | | Somewhat like me | | Very much like me |
| ___1. | | | | I find it difficult to depend on other people. |
| ___2. | | | | It is very important to me to feel independent. |
| ___3. | | | | I find it easy to get emotionally close to others. |
| ___4. | | | | I want to merge completely with another person. |
| ___5. | | | | I worry that I will be hurt if I allow myself to become too close to others. |
| ___6. | | | | I am comfortable without close emotional relationships. |
| ___7. | | | | I am not sure that I can always depend on others to be there when I need them. |
| ___8. | | | | I want to be completely emotionally intimate with others. |
| ___9. | | | | I worry about being alone. |
| ___10. | | | | I am comfortable depending on other people. |
| ___11. | | | | I often worry that romantic partners don't really love me. |
| ___12. | | | | I find it difficult to trust others completely. |
| ___13. | | | | I worry about other getting too close to me. |
| ___14. | | | | I want emotionally close relationships. |
| ___15. | | | | I am comfortable having other people depend on me. |
| ___16. | | | | I worry that others don't value me as much as I value them. |
| ___17. | | | | People are never there when you need them. |
| ___18. | | | | My desire to merge completely sometimes scares people away. |
| ___19. | | | | It is very important to me to feel self-sufficient. |
| ___20. | | | | I am nervous when anyone gets too close to me. |
| ___21. | | | | I often worry that romantic partners won't want to stay with me. |
| ___22. | | | | I prefer not to have other people depend on me. |
| ___23. | | | | I worry about being abandoned. |
| ___24. | | | | I am somewhat uncomfortable being close to others |
| ___25. | | | | I find that others are reluctant to get as close as I would like. |
| ___26. | | | | I prefer not to depend on others. |
| ___27. | | | | I know that others will be there when I need them. |
| ___28. | | | | I worry about having others not accept me. |
| ___29. | | | | Romantic partners often want me to be closer than I feel comfortable being. |
| ___30. | | | | I find it relatively easy to get close to others. |

APPENDIX C

APPENDIX C

Attraction to Sexual Aggression Scale (excerpt)

People frequently think about different activities even if they never do them. For each kind of activity listed, please indicate whether or not you have ever *thought* of trying that activity, and also how *attractive* you find it.

	Have you ever thought of trying this? (circle one)		Whether you have thought of it or not, do you find this idea...			
	yes	no	Very Unattractive	Somewhat Unattractive	Somewhat Attractive	Very Attractive
a. Necking (deep kissing)	yes	no	1	2	3	4
b. Petting (touching or fondling)	yes	no	1	2	3	4
c. Oral sex	yes	no	1	2	3	4
d. Whipping, spanking	yes	no	1	2	3	4
e. Rape (forced intercourse)	yes	no	1	2	3	4
f. Forcing a partner to do something sexual they do not want to do (<i>not</i> intercourse)	yes	no	1	2	3	4
g. Sexual activities with a child	yes	no	1	2	3	4
h. Wearing the clothes of the opposite sex	yes	no	1	2	3	4

2. How **sexually arousing** do you think you would find the following sexual activities if you engaged in them (even if you have never actually engaged in them)?

	Very Un-arousing	Somewhat Un-arousing	Somewhat Arousing	Very Arousing
a. Necking (deep kissing)	1	2	3	4
b. Petting (touching or fondling)	1	2	3	4
c. Oral sex	1	2	3	4
d. Whipping, spanking	1	2	3	4
e. Rape (forced intercourse)	1	2	3	4
f. Forcing a partner to do something sexual they do not want to do (<i>not</i> intercourse)	1	2	3	4
g. Sexual activities with a child	1	2	3	4
h. Wearing the clothes of the opposite sex	1	2	3	4

3. If you could be assured that no one would know and that you could in *no way be punished* for engaging in the following acts, how likely, if at all, would you be to commit such acts?

	Very Unlikely	Somewhat Unlikely	Somewhat Likely	Very Likely
a. Necking (deep kissing)	1	2	3	4
b. Petting (touching or fondling)	1	2	3	4
c. Oral sex	1	2	3	4
d. Whipping, spanking	1	2	3	4
e. Rape (forced intercourse)	1	2	3	4
f. Forcing a partner to do something sexual they do not want to do (<i>not</i> intercourse)	1	2	3	4
g. Sexual activities with a child	1	2	3	4
h. Wearing the clothes of the opposite sex	1	2	3	4

Sexual Fantasy Questionnaire (deviant fantasy factor)

Fantasies are thoughts, feelings, and images. We are interested in your fantasies that include sexual activities or feelings. Some of these may involve sexual activities that you have actually done. Others may involve things that you would not actually do. Please describe the fantasies you've had, even if they are about things that you would not actually do.

Here are some fantasies that people sometimes have. For each item, please circle the number that best describes how often you've had that fantasy, while daydreaming, masturbating, or doing something else.

	Never in my Life	At some time in my life	A few times a year	About once a month	About once a week	About once a day	Two or more times a day
1. chasing someone	0	1	2	3	4	5	6
2. teasing someone	0	1	2	3	4	5	6
3. bribing someone	0	1	2	3	4	5	6
4. sneaking	0	1	2	3	4	5	6
5. spanking someone	0	1	2	3	4	5	6
6. yelling at partner	0	1	2	3	4	5	6
7. ignoring a partner's Protest	0	1	2	3	4	5	6
8. pinching during sexual activity	0	1	2	3	4	5	6
9. pushing during sexual activity	0	1	2	3	4	5	6
10. forcing someone to do something sexual	0	1	2	3	4	5	6
11. hurting a partner during sexual activity	0	1	2	3	4	5	6
12. threatening to hurt a partner	0	1	2	3	4	5	6
13. raping someone	0	1	2	3	4	5	6
14. sexually degrading a partner (calling names, laughing at, etc.)	0	1	2	3	4	5	6
15. whipping or beating partner	0	1	2	3	4	5	6
16. torturing a sex partner	0	1	2	3	4	5	6
17. making prank/obscene telephone calls	0	1	2	3	4	5	6
18. talking dirty	0	1	2	3	4	5	6
19. kidnapping someone for sexual purposes	0	1	2	3	4	5	6
20. sex with young children (under 6 years old)	0	1	2	3	4	5	6
21. sex with children (6-11 years-old)	0	1	2	3	4	5	6
22. sex with teenagers (12-17 years-old)*	0	1	2	3	4	5	6
23. sex with people 18 years and older*	0	1	2	3	4	5	6

Sexual History Form (Modified)

Mark the answer sheet for each person involved in the activity. It is OK to indicate multiple items, because often people have done sexual activities more than once. If you have never done the activity, just mark “No” and move on to the next question (for example, if you have never hugged or kissed another person, simply mark “N” on your answer sheet and move on to #2, skipping 1b, 1c, etc.). Answer all questions with **Yes** or **No**.

Note: **18 or older** means the person was 18 years of age or older at the time.

Willing to participate means the person was involved in the activity of their own free will, without any pressure, threats, or bribes.

3+ yrs older means the person in question was *three or more* years older than the other person involved in the activity.

Have you <i>ever</i> participated in this activity?	↓	At the Time, YOU were...			..and the Other Person was...		
		18 or Older	Willing to Participate	3+ yrs older than them	18 or Older	Willing to Participate	3+ yrs older than you
1. Hugging or kissing	1a.	1b.	1c.	1d.	1e.	1f.	1g.
2. Touching or fondling a person's breasts or buttocks	2a.	2b.	2c.	2d.	2e.	2f.	2g.
3. Touching or fondling a person's genitals (penis or vagina)	3a.	3b.	3c.	3d.	3e.	3f.	3g.
4. Putting a penis, a finger, or an object into a person's anus or vagina	4a.	4b.	4c.	4d.	4e.	4f.	4g.
5. Getting a person to watch sexual videos with you	5a.	5b.	5c.	5d.	5e.	5f.	5g.
6. Getting a person to take off their clothes, show their private parts, or show them your own	6a.	6b.	6c.	6d.	6e.	6f.	6g.
7. Getting a person to have sex with you	7a.	7b.	7c.	7d.	7e.	7f.	7g.
8. Secretly watching someone who was naked, undressing, getting dressed, or having sex	8a.	8b.	8c.	8d.	8e.	8f.	8g.
9. Touching or rubbing a stranger in a sexual way	9a.	9b.	9c.	9d.	9e.	9f.	9g.
10. Other sexual activities not listed above	10a.	10b.	10c.	10d.	10e.	10f.	10g.

BIOGRAPHICAL SKETCH

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