

THE LINK BETWEEN PERSONALITY AND OFFENDING: THE ROLE OF
ANTISOCIAL COGNITIONS

by

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ABSTRACT

Although a robust relationship between personality and offending exists (Jones et al., 2011), exactly how personality traits are translated into antisocial behavior has been scarcely examined (Miller & Lyman, 2001). The current study focused on the domains from the Big Five model of personality to examine the extent to which the relationship between personality traits and offending was mediated by antisocial cognitions. Using a sample of high school students, results indicated that both Agreeableness and Conscientiousness exerted direct effects on self-reported offending, as well as indirect effects through antisocial cognitions. These findings suggest that one mechanism by which traits lead to behavior is through higher endorsement of cognitions that serve to neutralize or minimize the negative impacts that can stem from offending.

I. EMPIRICAL FINDINGS

PERSONALITY

Personality alludes to relatively consistent patterns of thinking, feeling, and behaving manifested by an individual (Jones et al., 2011). Scholars have argued that the link between personality and offending has the potential to explain other meaningful patterns such as the stability and heritability of antisocial behavior (Miller & Lynam, 2001). Information regarding one's personality traits could help distinguish which traits are most related to antisocial behavior and help identify those who are prone to such behavior.

The most widely used and accepted conceptualizations of personality are those that suggest personality consists of five broad domains, including Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness (Costa & McCrae, 1995; John & Srivastava, 1999). This model is one of the most-widely used models of personality traits and was developed on the basis of the lexical approach. The lexical approach derives from the notion that personality traits most important for human communication have become encoded in language as single words (Miller and Lynam, 2001).

The five domains identified in the FFM include Extraversion, Neuroticism, Openness, Agreeableness, and Conscientiousness. Extraversion relates to positive affectivity and sociability. Conversely, Neuroticism relates to negative affectivity and emotional stability. Openness assesses one's intellect and receptivity to new experiences. Agreeableness refers to the quality of interpersonal relationships, specifically in the desire to experience positive social relationships with others (Lynam & Miller, 2019). Conscientiousness is concerned with constraint and one's ability to plan behavior tasks as well as control impulses. Through the emphasis of five domains of personality, the Five

Factor Model (FFM) serves to identify general domains that form personality functioning so as to describe one's personality traits. Some measures, such as the NEO Personality Inventory – revised (NEO-PI-R) break these domains into 6 facets each, providing a more specific conceptualization of traits (Costa & McCrae, 1992).

While the big five are related to a wide variety of behaviors, some have been linked to antisocial behavior specifically. Measured using Pearson's r , Miller and Lynam (2001) conducted a meta-analysis and found that Agreeableness and Conscientiousness were the most consistent domains related to antisocial behavior with an unweighted mean effect size of $r = -.37$ and $-.23$, respectively. Neuroticism and Extraversion were both found to have mixed results regarding their relation to antisocial behavior, $r = .09$ and $.02$, respectively. These results could partially be explained by the overlap of Neuroticism and Extraversion facets with the facets of Agreeableness and Conscientiousness. For Neuroticism specifically, the mean effect size varied depending on the inclusion of specific facets and the overlap of the Neuroticism facets with the facets of other domains. Just as importantly, some of the facets within each domain demonstrate different relationships with antisocial behavior. This has led researchers to examine not just the five domains, but also the facets.

Jones et al. (2011) meta-analysis found Agreeableness and Conscientiousness facets were the most consistent correlates and yielded the largest effect sizes for antisocial behavior. The effect sizes of straightforwardness ($r = -.30$), compliance ($r = -.27$), and altruism ($r = -.21$), all from the Agreeableness domain, emerged as the strongest correlates of antisocial behavior. From the Conscientiousness domain, the effect sizes for

deliberation ($r = -.25$) and dutifulness ($r = -.22$) were the strongest correlates of antisocial behavior.

These findings were confirmed in a subsequent meta-analysis (Vize et al., 2018). The study aimed to examine the relationship between personality traits and different forms of antisocial behavior including physical aggression, non-violent aggression, relational aggression, reactive aggression, and proactive aggression. Average non-violent antisocial and aggressive behavior outcomes showed consistent negative relations with both Agreeableness and Conscientiousness. Similar statistically significant effect sizes for non-violent antisocial behavior outcomes were found for the straightforwardness, $r = -.32$, compliance, $r = -.36$, and altruism, $r = -.23$, facets from the Agreeableness domain. The Conscientiousness facet effect sizes of $r = -.25$ for deliberation and $r = -.22$ for dutifulness in relation to non-violent antisocial behavior outcomes were also found to be the most consistent. The effect sizes of these facets on aggression were also found to be statistically significant. The facet effect sizes were $r = -.29$ for straightforwardness, $r = -.37$ for compliance and $r = -.22$ for altruism. Similarly, the Conscientiousness effect sizes for deliberation and dutifulness were $r = -.22$ and $-.16$ in relation to aggression.

Although there is strong evidence to suggest that personality is related to offending (Miller and Lynam, 2001), it remains unclear how general personality traits are translated into antisocial behavior. For instance, why is a person who is low in Agreeableness and/or Conscientiousness more likely to engage in antisocial behavior? While we know who, based on their traits, is more likely commit antisocial acts, it not well understood precisely why this is the case.

ANTISOCIAL COGNITIONS

Like personality, antisocial cognitions, referring to attitudes, beliefs, and rationalizations supportive of antisocial behavior, are robustly related to antisocial behavior. Unlike personality, however, there is not a consensus on what constitutes them. There are an abundance of labels and conceptualizations that can be used to describe what this study is referring to as antisocial cognitions. These terms include, but are not limited to, antisocial behaviors, attitudes, or beliefs. The labels are used interchangeably and synonymously to refer to antisocial behaviors. Clarifying and refining what antisocial cognitions are is beyond the scope of the current study. Instead, we follow others by suggesting we are interested in various expressions or manifestations of this elusive construct.

As previously mentioned, the Agreeableness and Conscientiousness domains of the FFM are a consistent and strong correlate of antisocial behavior. Meta-analytic evidence indicates that there are certain variables, called the Big Four, that best help predict antisocial behavior (Bonta and Andrews, 2010). The four cognitions that comprise the Big Four include a history of antisocial behavior, antisocial personality pattern, antisocial cognition and antisocial associates.

Cognitive distortions is an umbrella term for justifications and rationalizations for deviant, pro-criminal behavior. This includes offense-supporting attitudes. The meta-analysis conducted by Helmond et al. (2015) focused on 71 studies across 20,685 participants examining the association between cognitive distortions, as well as general attitudes that support offending on externalizing behavior. Externalizing behavior included behavior that breaks social or moral norms and is directed toward damaging

others such as delinquency, aggression and bullying. Helmond et al. (2015) found a significant medium to large effect size ($d=.70$) that indicates that higher levels of cognitive distortions were related to higher levels of externalizing behavior. In addition, they noted that offenders have higher levels of cognitive distortions than non-offenders, which led to higher levels of several types of externalizing behaviors.

Despite the varying operationalizations of antisocial cognitions, it is clear that they play a key role in understanding antisocial behavior. What has yet to be explored is the extent to which antisocial cognitions might serve as an important mediator of other known correlates antisocial behavior.

INTEGRATION

As mentioned above, how general personality traits are translated into antisocial behavior is not well understood. As mentioned above, personality describes consistent patterns of thinking, feeling, and behaving. It stands to reason that certain traits might be related to patterns of antisocial thinking, or antisocial cognitions. As demonstrated above, both personality and cognitions are important to antisocial behavior and examining them together might help us understand how personality turns into behavior.

Like personality, antisocial cognitions have been identified as a robust correlate of ASB (Jones et al., 2011). The heritability of ASB and the fact that personality tends to be relatively stable over time (Roberts & DeVecchio, 2000) may help explain how one's cognitions also tend to be stable over time. It may be that having specific personality traits might make it more likely for specific cognitions to translate themselves into behavior.

Indeed, the Agreeableness and Conscientiousness domains from the FFM were found to be the strongest correlates to antisocial behaviors (Miller & Lynam, 2001). Miller, Lynam and Jones (2008) found that the strongest correlates to ASB were personality traits that assessed hostility as well as lower empathy and distrust and deception, all of which are related to Agreeableness. Individuals who possess certain personality traits, such as being deceptive, might be more likely to behave antisocially perhaps because they believe it is okay to do so, especially if there is a slim chance of them getting caught. Those who tend to be more argumentative might justify their behavior, such as acting on altercations through physical force, due to the rationalization they create to justify their own ASB. Further, those who tend to be lower in empathy, lacking beliefs and attitudes that suggest it is bad to harm others, might be more willing to engage in neutralizations because they tend to not care much about others. In other words, their lack of consideration for others before committing their crimes allows them to minimize their actions. These neutralizations, or rationalizations, are aligned with antisocial cognitions which make it more likely for someone to engage in ASB, such as offending behavior. Overall, both Agreeableness and Conscientiousness perhaps might be negatively related to neutralizations.

Additionally, Miller, Lynam and Jones (2008) found that impulse control and difficulty upholding societal expectations or rules were also correlates of ASB, both of which are related to the Conscientiousness domain. As previously mentioned, this domain is related to following one's own internal code, holding nontraditional values and unconventional beliefs (Miller & Lynam, 2001). This is perhaps why those low in Conscientiousness are more likely to possess and endorse aggressive responses as they

are nontraditional and unconventional, which then leads to ASB. Further, those high in rash impulsivity, related to Conscientiousness and an established risk factor of externalizing behavior such as offending, tend to be more likely to exhibit externalizing behaviors (Revill et al., 2020). Moreover, Miller, Lynam and Jones (2008) found that the tendency to possess hostile attribution bias was significantly correlated with ASB ($r = -.31$) and since Agreeableness and Conscientiousness are significantly related with each other, those low in Conscientiousness also tend to possess hostile attribution bias. This results in the tendency to see the world as a much more threatening place by perceiving other's actions as hostile and demonstrating an increase in aggressive responses as a result of the maintenance of neutralizations.

It should be noted, however, that these suggestions linking traits to cognitions to antisocial behavior have not been fully explored. Moreover, it remains unknown the extent to which the effects of personality on antisocial behavior are mediated, fully or in part, by antisocial cognitions. Thus, this model is speculative and requires empirical verification.

CURRENT STUDY

The goal of the current study is to advance the literature by exploring the extent to which the relationship between FFM personality traits and offending among juveniles is mediated by antisocial cognitions. We will be utilizing the Big Five model of personality, with emphasis on the Agreeableness and Conscientiousness domains, to analyze the impact that neutralizations have on externalizing behavior. We hypothesize that the Agreeableness and Conscientiousness domains will both be significantly and negatively

related to offending among participants in relation to our dependent variable, self-reported delinquency.

Additionally, we hypothesize that antisocial cognitions will be significantly and positively related to offending, however they will be significantly and negatively related to both Agreeableness and Conscientiousness. Further, we expect antisocial cognitions to significantly and negatively mediate the relationship between Agreeableness and offending as well as Conscientiousness and offending.

PARTICIPANTS

Participants were students involved in a longitudinal study – the Rural Substance Abuse and Violence Project. Waves 3 (9th graders) and 4 (10th graders) were used in the current study, when students were in high school. A total of 9,488 students were selected for participation, and active parental consent was obtained for 4,102 – a 43% response rate. Due to attrition and missing cases, there were 3,690 (89.96%) and 3,638 (88.69%) in waves 3 and 4 respectively. The sample contained slightly more girls (52.2%) than boys (47.8%). The majority of the sample were Caucasian (89.2%), followed by African American (5.7%) and other races (collapsed; 5.1%). Ethnicity was not recorded.

MEASURES

Self-reported delinquency

The dependent variable was self-reported delinquency. Participants were asked to self-report whether they had engaged in any of 29 delinquent acts. Items included the use of various substances, school suspension, minor theft, serious theft, and different forms of assault, among others. Items were then summed, creating a variety scale. Higher scores are indicative of greater delinquency. Due to a notable positive skew, the natural log of

the delinquency scale was used in the analyses. The items were drawn from Wave 4.

Personality

The Big Five Inventory (BFI; John & Srivastava, 1999) was used to assess personality. This is a widely-used and validated scale assessing the five broad domains of personality – Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. In the current study, only Agreeableness and Conscientiousness were used as these are the two most consistent domains of personality that are related to antisocial behavior (Jones, Miller, & Lynam, 2011). Participants were asked to self-report the extent to which 44 descriptors were characteristic of themselves, rated from 1 (strongly disagree) to 5 (strongly agree). Higher scores indicate higher levels of the trait. The items were drawn from Wave 3.

Antisocial attitudes

Antisocial attitudes were measured using items designed for this study. Participants were asked to self-report the extent to which they agreed with eight statements. More specifically, the statements indicated the degree which an antisocial behavior was acceptable, given certain circumstances. Examples include, “It’s alright to beat up another person if he/she started the fight,” and “Most things that adults call “It’s okay to break the law if you can get away with it.” The statements are best described as neutralizations of antisocial behavior. Responses ranged from 1 (strongly disagree) to 4 (strongly agree). These items were summed to create a scale, with higher scores representing more antisocial attitudes. The items were drawn from Wave 4.

Analytic approach

The measures used in this study were analyzed using Hayes’ PROCESS model.

Specifically, this is a regression-based analysis that can assess mediation effects, and provides total, direct, and indirect effects. More specifically, the total and direct effects are ordinary least squares estimates, while the indirect effects are based on 10,000 bootstrapped samples. Thus, the coefficient, standard errors, and 95% confidence intervals (CIs) are bootstrapped estimates. This approach provides more accurate indirect effect estimates for the coefficients, standard errors, and 95% CI (Hayes, 2013). If there is a mediation effect, the 95% CI of the bootstrapped effect will not contain zero. All variables were standardized so that estimates generated would represent effect sizes.

RESULTS

The first analysis focused on both personality traits and antisocial attitudes and their relationship with self-reported delinquency. The model fit the data well ($F_{(3, 2272)} = 317.99, p < .001$), and accounted for 30% of the variance in self-reported delinquency. Agreeableness ($b = -.15, 95\% \text{ CI } [-.11, -.19], seb = .02, p < .001$) and Conscientiousness ($b = -.07, 95\% \text{ CI } [-.03, -.11], seb = .02, p < .001$) were significantly, negatively, and modestly related to self-reported delinquency, while antisocial attitudes was significantly, positively, and strongly related to self-reported delinquency ($b = .44, 95\% \text{ CI } [.40, .47], seb = .02, p < .001$). Each of these findings represent the direct effects of each independent variable on self-reported delinquency.

Next, the association between the personality traits (as independent variables) and antisocial attitudes (as the dependent variable) was assessed. Agreeableness was significantly, negatively, and strongly related to antisocial attitudes ($b = -.30, 95\% \text{ CI } [-.25, -.34], seb = .02, p < .001$), while Conscientiousness was significantly, negatively, and modestly related to antisocial attitudes ($b = -.11, 95\% \text{ CI } [-.06, -.15], seb = .02, p < .001$).

The next model focused on the extent to which antisocial attitudes mediated the effect of Agreeableness on self-reported delinquency. There was an indirect effect of Agreeableness on self-reported delinquency through antisocial attitudes ($b = -.13$, 95% CI $[-.11, -.15]$, $seb = .01$). This indicates that antisocial attitudes mediate the relationship between Agreeableness and self-reported delinquency. The total effect (including both the direct and indirect effects) of Agreeableness on self-reported delinquency was significant, negative, and moderate ($b = -.28$, 95% CI $[-.23, -.32]$, $seb = .02$, $p < .001$).

The final model focused on the extent to which antisocial attitudes mediated the effect of Conscientiousness on self-reported delinquency. There was an indirect effect of Conscientiousness on self-reported delinquency through antisocial attitudes ($b = -.05$, 95% CI $[-.03, -.07]$, $seb = .01$). This indicates that antisocial attitudes mediate the relationship between Conscientiousness and self-reported delinquency. The total effect (including both the direct and indirect effects) of Conscientiousness on self-reported delinquency was significant, negative, and modest ($b = -.12$, 95% CI $[-.08, -.17]$, $seb = .02$, $p < .001$).

DISCUSSION

The purpose of this study was to expand the literature by analyzing the relationship between Big Five personality traits and offending and the extent to which their relationship is mediated by antisocial cognitions. The results yielded that antisocial cognitions mediate the relationship between Agreeableness and self-reported delinquency as well as Conscientiousness and self-reported delinquency. In addition to significant indirect effects, both Agreeableness and Conscientiousness exerted direct effects on offending. These direct effects suggest there might be other mechanisms that explain the

link between personality traits and offending.

Given that antisocial cognitions mediated the relationship between Agreeableness and Conscientiousness and delinquency, this suggests that antisocial cognitions tend to overlap with Agreeableness, Conscientiousness and offending. In terms on intervention, Jones et al. (2011) demonstrated that studying the underlying facets within the Agreeableness and Conscientiousness could yield more detailed findings. In other words, analyzing the underlying facets of each of the five domains and their relationship with delinquency may prove to be advantageous. Further, the findings can be utilized to help identify those who are low in Agreeableness and Conscientiousness, and thus more susceptible to antisocial cognitions, in order to assess the need for prevention. Identifying those who might be more susceptible to adopting antisocial cognitions and rationalizing their behavior before they first engage in externalizing behavior, such as offending, is important to address before they can engage in the behavior repeatedly. This can be done through the treatment of cognitive behavioral therapy (CBT) which is premised on the notion that cognitions drive behavior. Specifically, if antisocial cognitions can influence antisocial behavior, then attempts to modify, alter, or change such cognitions might lead to behavioral changes as well. The meta-analysis conducted by Lipsey, Landenberger & Wilson (2007) found that offenders tend to have distorted cognitions and therefore targeting those cognitions by teaching them cognitive skills training, moral development and relapse prevention in order to alter those cognitions and avert them from engaging in antisocial behavior. Based on the results of this study, the types of cognitions that could be targeted in cognitive behavioral therapy would focus on those used to justify, neutralize, or rationalize antisocial behavior. Targeting these antisocial cognitions could

help reduce their standoffish perception of the situations and people around them in addition to reducing the neutralizations that justify the antisocial behavior they engage in.

The results were also largely consistent with previous findings regarding the robust relationship between Agreeableness and Conscientiousness domains and antisocial behavior. It was found that Agreeableness was significantly, negatively and strongly related to antisocial attitudes and Conscientiousness was significantly, negatively and modestly related to antisocial attitudes. Similar to previous empirical findings, such as Jones et al. (2011) and Miller & Lynam (2001), Agreeableness and Conscientiousness were robust correlates of delinquency. One novel aspect to the current findings, however, was that both of these traits were measured using the BFI, whereas much previous research has relied on FFM measures of them.

Beyond personality, our findings indicate that antisocial cognitions are moderately related to delinquency. These findings are largely consistent with the findings found in the meta-analysis conducted by Helmond et al. (2015) which found significant medium to large effect sizes that indicated that higher levels of cognitive distortions were related to higher levels of externalizing behavior, such as delinquency. In the current analysis, antisocial cognitions tapped into neutralizations. Future research might pursue two additional lines of research. First, explore whether other operationalizations of antisocial cognitions also mediate the relationship between personality and antisocial behavior. This would attest the robustness of the current findings. Second, additional research is needed to examine the extent to which various operationalizations of antisocial cognitions represented in the literature are similar or different. Both of these issues remain unresolved. Nonetheless, the consistencies that do exist between the results

found in the current study and the results from previous studies indicates that our findings are valid and robust.

Although our findings were consistent with existing research, there are several limitations to this study that must be taken into consideration. First, the data collection was conducted at time points different from the gold standard. Ideally, one would have measured personality at time 1, antisocial cognitions at time 2 and delinquency at time 3. However, through self-reported delinquency, prior delinquency was actually measured in addition to antisocial cognitions being measured at the same time rather than in the aforementioned order. Further, the data for both the independent (personality) and the dependent (delinquency) variables in this study was self-reported. This represents another limitation. Specifically, the effect sizes might have been inflated as a result shared method variance.

Data collection being self-reported could cause potential issues regarding the reliability of the participants' answers. The high school students might purposely align their answers with responses that are considered to be more socially appropriate and desirable, thus resulting in the underreporting of delinquency. It is also important to note that non-random missingness is a concern. In other words, the sample likely excluded those who are especially delinquent. Such individuals might no longer be enrolled in high school for reasons such as dropping out or incarceration.

Although more research is needed, this analysis offers evidence of antisocial cognitions and personality being robust correlates of antisocial behavior. Moreover, understanding how they operate together, as was found in this study, is an advancement in the literature. It is our hope that more extensive research be conducted regarding the

underlying facets within each domain and how they pertain to delinquency and offending in order to better implement the findings to the way in which rehabilitation and treatment options can be provided for those who are self-reporting antisocial behavior.

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