

An Analysis Exploring the Mediating Role of Empathy Between Personality Traits and Antisocial Behavior

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Abstract. Adolescent antisocial behavior, especially juvenile delinquency, has been a hot issue in society. Studies have been conducted to explore how antisocial behavior and personality traits are intercorrelated, as well as how antisocial behavior and empathy are related to one another. However, few studies have focused on investigating the interplay between empathy, antisocial behavior, and personality traits. This paper aims to fill this gap by inferring how personality traits and empathy level affect the conduction of antisocial behaviors for adolescents through a literature review. Agreeableness, conscientiousness, and neuroticism, which are three vital personality traits in the big five personality trait test, are found to be correlated with antisocial behavior, and agreeableness, extraction, and neuroticism are correlated with empathy. So this review focus on two personality traits: agreeableness and neuroticism. It states that empathy mediates the interaction between the two personality traits and antisocial behaviors during adolescence years. It also gives suggestions that parents and teachers should pay more attention to adolescents with high neuroticism or low agreeableness. It highlights that people can intervene in adolescents' antisocial behavior through intervene in adolescents' empathy.

Keywords: Empathy; Big five personality traits; Antisocial behavior.

1. Introduction

Antisocial behavior in adolescents has always attracted widespread attention. Antisocial behavior in adolescence can predict criminal behaviors in adulthood, and the onset of related psychological disorders in the future. Severe antisocial behavior manifests itself as adolescent delinquency. For many countries, juvenile delinquency remains a serious issue. From 1996 to 2020, the juvenile arrest rate in the United States continues to decline. However, juvenile crime in the United States remains high. According to FBI statistics, juvenile crime accounted for 14 percent of all violent crimes in 2021, up 27 percent from 2020. In China, as of July 1, 2015, the total number of juvenile crimes accounted for more than 70 percent of the country's total criminal offenses, according to the Procuratorate Daily. Moreover, the age of the offenders shows the phenomenon of low age, and minors are mostly 14, 15, and 16 years old when they commit crimes. In addition to the harm to the victim, juvenile delinquency can have a negative impact on society. The frequent occurrence of juvenile delinquency creates public fear. It also puts pressure on the government to spend more time and money on related law enforcement activities.

There have been many studies examining the relationship between antisocial behavior and personality. Research has shown that specific personality traits show high correlations with antisocial behavior, either positively or negatively, including agreeableness, dutifulness, and neuroticism. Similarly, many studies examine how empathy and antisocial personality interact with one another. Studies have shown that empathy and antisocial behavior are negatively correlated with one another. In studies examining the interplay between personality traits and empathy, agreeableness and openness showed positive correlations with empathy, while the interaction between neuroticism and empathy was less clear. In addition, the relationship between personality, antisocial behavior, and empathy remains to be studied, especially among adolescents.

This paper aims to elaborate on how personality traits and empathy interact with antisocial behavior among adolescents through a literature review and provide theoretical support for future interventions in adolescents.

2. Analysis

Antisocial behavior is often defined as behavior that infringes on the fundamental rights of others. In adults, antisocial behavior encompasses criminal behavior along with other more insidious behaviors. Criminal behaviors include stealing, physical assault, etc. More insidious behaviors include lying, cheating, and manipulating others for personal gain. In children and adolescents, antisocial behaviors manifest as attacks on people and animals, vandalism, cheating, stealing, and serious rule violations. Notably, for adolescents, early antisocial behavior is somewhat predictive of future alcohol-related problems and alcohol use disorders [1,2]. Also, because antisocial behavior remains relatively stable throughout an individual's life, antisocial behavior in adolescence is predictive of criminal behavior in adulthood. In addition, an individual's involvement in antisocial behavior can lead to a deterioration of social relationships with others, which in turn can exacerbate antisocial behavior. This is mainly reflected in relationships with peers, parents, and teachers during adolescence. Take peer relationships for example, adolescents who exhibit antisocial behaviors are more likely to experience peer rejection. The temporal need-threat model of ostracism states that individuals who are ostracized by their peers exhibit aggressive behavior when they are further ostracized because of their antisocial behavior [3].

There have been many researchers who have focused on the mutual effect between personality and antisocial behavior. At the earliest, researchers found significant differences between the scores of offenders and non-offender groups on personality tests. In 1950, Schuessler and Cressey explored through a review whether offenders and non-offenders have different personalities, and 42% showed differences [4]. In 1967, Waldo and Dinitz again reviewed and found that 81% of the studies showed differences, but the problem of inconsistent personality tests remained [5]. 1977, Tennenbaum again reviewed studies linking criminality and personality. It found that offenders and non-offenders differed in personality in nearly 80% of the studies, but there was a greater variety of personality tests and no greater variation within the mothers [6]. Due to the immaturity of early personality tests, the relationship between the scores of offenders and non-offender groups on personality test was not given sufficient attention. However, as personality research continued to grow, the field of personality testing evolved, and measurement instruments became more sophisticated, the relationship between personality and antisocial behavior received more attention.

Currently, the Big Five personality model is the dominant paradigm in personality research and a valid model for explaining individual differences in human behavior [7]. According to this model, neuroticism, agreeableness, extraversion, openness, and conscientiousness are five basic personality traits. Miller and Lynam found that agreeableness, neuroticism, and conscientiousness were all correlated with antisocial behavior through a meta-analysis [8]. Their findings were validated by Jones et al. in 2011 through a meta-analysis. In this study, the subfactors of agreeableness were most consistently correlated with antisocial behavior. Among the subfactors in neuroticism, anger hostility had a high correlation with antisocial behavior [9].

Empathy has been defined as the capability of understanding what another person is feeling from within his or her frame of reference or the capability of putting oneself in the other's shoes [10]. The mutual effect between empathy and antisocial behavior has been investigated. Miller and Eisenberg discovered empathy and antisocial behavior are positively correlated with one another in questionnaires through meta-analysis [11]. Kaukiainen et al. classified aggression into three categories: physical aggression, verbal aggression, and indirect aggression. Among the participants in the three age groups, empathy showed a significant negative correlation with each type of aggression except for indirect aggression in 12-year-old participants [12]. All of these studies demonstrated empathy and antisocial behavior are negatively associated with one another.

The interplay between personality traits and empathy is also interesting. Magalhães and Costa found both agreeableness and openness to experience are positively correlated with empathy among medical and nursing students. Contrary to their hypothesis, empathy was not correlated with neuroticism [13]. Haas et al. found that warmth, a subfactor of extraversion, and altruism, a subfactor of agreeableness, were associated with empathy [14]. Both of the above studies found no correlation

between empathy and neuroticism. However, a study conducted in four countries found a correlation between empathy and personal distress in empathy [15]. In addition, other studies have confirmed that in adolescents, neuroticism moderates the interaction between empathy and adolescent pro-social behavior, and for adolescents with high neuroticism, empathy, and pro-social behavior are positively correlated. For adolescents with low neuroticism, empathy and pro-social behavior were not related [16]. The above two studies suggest that empathy is correlated with neuroticism. Taken together, empathy and agreeableness are positively correlated with one another, but the relationship with neuroticism remains to be studied. Since this paper emphasizes the mutual effect between personality traits, antisocial behavior, and empathy, it focuses on two personality traits: agreeableness and neuroticism.

It is evidenced that empathy is positively correlated with agreeableness. However, an analysis of the available literature revealed that the relationship between neuroticism and empathy has shown inconsistencies in different studies. Some studies concluded that neuroticism and empathy are not correlated, while others concluded that neuroticism and empathy are correlated. For example, for which no correlation was found in the study of Magalhães and Cost [13]. The aim of the research was to measure how empathy and personality traits interact with each other in medical students. In the experiment, the JSE spv was used to measure empathy, in which empathy was divided into three dimensions "Perspective Taking", "Compassionate Care", and "Standing in the Patient's Shoes". All three dimensions were targeted to the group of medical and nursing students and three dimensions included no significant emotional factor. Among the studies that found correlations, a four-country experiment conducted by Melchers et al. was used as an example [15]. The experiment used two scales to measure empathy. To obtain a general empathy score, the researchers used the EQ and to differentiate between the components of empathy, the researchers also used the IRI to measure empathy. In this scale, empathy is divided into empathic concern, perspective taking, fantasy, and personal distress, with personal distress being associated with neuroticism. As it can be seen, the different experimental purposes led the researchers to use different scales. In each scale, empathy was defined differently and the dimensions of the scales were different. Thus, the main reason for the unclear relationship is the inconsistency of the experimental purpose. In addition, the inconsistency of the findings can be explained by what empathy entails. It is revealed that empathy has an emotional component. Neuroticism is related to an individual's pattern of experiencing negative emotions. Negative emotions positively interact with neuroticism, and with its subfactor hostility. Ng stated that there is no relationship or a negative association between positive emotions and neuroticism in different situations [17].

Personality traits can predict antisocial behavior. There is also an interaction between personality traits and empathy. It can be inferred that empathy has a mediating effect between personality traits and antisocial behaviors. Nasti et al. examine the relationship between trait emotion intelligence (TEI), empathy, personality traits, and bullying in children [18]. 199 school children aged 8 to 10 years were recruited for this study. The study found no direct effect of neuroticism on bullying, but it found that neuroticism is positively associated with TEI, TEI is positively associated with empathy, and empathy and bullying are negatively correlated with each other. The TEI-empathy causal chain then fully negatively mediated the association between neuroticism and bullying. Participants with high neuroticism scores and low TEI and empathy ratings exhibited more bullying behaviors compared to participants with the same neuroticism scores and high TEI and empathy ratings. It also states low agreeableness represents a high possibility of bullying. The results demonstrate that empathy mediates the association between personality traits and bullying in children. Since bullying is a type of antisocial behavior, it is acceptable to state that empathy has a mediating effect between personality traits and empathy.

3. Suggestions

When assessing adolescents for antisocial behavior, especially the possibility of adolescents with disorders such as conduct disorder or oppositional defiant disorder, attention needs to be paid not only to individuals with high neuroticism scores but also to individuals with low agreeableness scores. When adolescents are found to be prone to antisocial behavior, parents and teachers should intervene in time.

Traditional interventions for antisocial behavior include both prevention and treatment components. Schools or communities can help adolescents build interpersonal interactions and reduce the risk of future antisocial behaviors by organizing relevant group activities. Specific high-risk groups should be enrolled in relevant programs with preventive interventions. In addition, for adolescents who have already exhibited antisocial behaviors, parents should work with a counselor to address the problem.

In addition to traditional interventions against antisocial behavior, interventions by increasing empathy can be considered. It has been shown that adolescents' empathy increases when they support and enhance the well-being of others, selflessness, and sincerity [19]. As a result, communities and schools can set up regular activities to help youth have more opportunities to support and enhance the well-being of others. Heyes cites much evidence to substantiate the Learned Matching hypothesis [20]. According to this hypothesis, learning assembles a matching mechanism for empathic roots. The empathy-rooted matching mechanism means that an individual's response to another person's emotion is empathic if it is elicited by and resembles or matches the other person's emotion. For example, if another person's sadness makes the individual feel sad too, such a response is called empathic. However, if the sadness of another person makes the individual feel happy, the response is not empathic. The Learned Matching hypothesis implies that the matching mechanism is learned based on acquired experience and is not controlled by genetic evolution. Notably, because the matching mechanism is learnable, the environment in which adolescents are placed has a significant impact on their empathy level. This emphasizes the important role school and family interventions play in developing empathy in adolescents. This finding implies that empathy levels are not determined at birth but are acquired through imitation and learning later in life. Kinship and partner groups are important in shaping adolescents' empathy because they tend to exhibit similar empathy ratings. In addition, the plasticity of empathy also means that the level of empathy in adolescents may decrease depending on the event experienced. An individual's encounter with events that demonstrate social indifference can reduce an individual's empathy. As a result, teachers and parents need to pay extra attention to the social environment that adolescents are exposed to.

4. Conclusion

This review states that empathy mediates the association between personality traits and antisocial behavior in adolescents. While agreeableness had a significant negative correlation with antisocial behavior, the sub-factor angry hostility of neuroticism showed a positive correlation with antisocial behavior. Whereas agreeableness and neuroticism were correlated with empathy, empathy showed a negative correlation with antisocial behavior. For the same personality traits, antisocial behavior decreased with increasing empathy ratings. It also makes recommendations for parents and teachers to intervene in antisocial behavior among adolescents. In addition to school and community events that help adolescents interact with each other and prevent intervention in advance, youth can be influenced by providing more opportunities to help others and by demonstrating higher empathy levels in their daily lives.

Limitations exist in this review. First, the inconsistency in the scales which are used to measure empathy in the research cited in the article led to differences in the results. This could also explain why the association between neuroticism and empathy exhibited inconsistencies across studies. Second, the participants in the cited studies were not all adolescents. Therefore, the relevant conclusions obtained need to be verified by subsequent experiments. Finally, there may be other

variables besides empathy that show a mediating role between personality traits and antisocial behavior, which needs to be verified in future studies.

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