The Effect of Agreeableness on Antisocial Behaviour: An Exploration of Moderated Model

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Abstract. The goal of the current study is to more precisely define the relationship between the agreeableness dimension of personality and antisocial conduct. According to previous studies, the personality construct could be highly related to antisocial behaviour. It might be of great importance to explore more in this aspect of antisocial behaviour and personality. When it comes to antisocial behaviour, some personality traits may serve as a core focus for intervention or preventative strategies. It can also be used as a method to shield potential victims in the future, which may contribute to the society. It is hypothesised that antisocial conduct is negatively associated with agreeableness level, with age as the moderator. A total of 212 individuals were recruited for participation, all of whom were voluntary to participate in the study. The results have met the hypothesis, suggesting that the dimension of agreeableness is highly and negatively related to antisocial behaviour. However, the interaction between age and the agreeableness level shows to be non-significant. Limitations of this study are discussed, as well as the implications of future interventions. Future directions are also suggested.

Keywords: Five-factor model, agreeableness, personality, antisocial behavior.

1. Introduction

There is a long and extensive history in the field of research on antisocial behaviours, which is not unexpected given the enormous costs they frequently bring to society, regardless of any cultural background. Early at the end of the last century, research found that in excess of three million assaults or homicides were committed within the nation of the US per year [1]. A recent survey also suggested that 1,039,579 offense reports regarding antisocial behaviour were received by police forces in England and Wales only during the year 2022 [2]. In view of the foregoing, concerns about the prevalence and the seriousness of antisocial behaviour in society are ongoing.

In consideration of the importance of the influence of antisocial behaviour on society, researchers have studied this phenomenon from various aspects. The factors of genetics, neurobiology, family, and consumption patterns have drawn many researchers' attention. Though substantial amounts of evidence have been found to explain antisocial behaviour, it is worth noting that its causes and effects should be a multi-factor model. The relationship between personality and antisocial behaviour still needs to be explored to a deeper extent.

According to previous studies, the personality construct could be highly related to antisocial behaviour [3]. Some remaining challenges in the field might even be explained by personality. To be more specific, it may contribute to the persistence of antisocial behaviour [4], as personality is constant over the course of time also [5]. The stability of personality has been demonstrated by a variety of studies, where a meta-analysis found coefficients of 0.82 and 0.67 across ten- and twenty-year life spans correspondingly [6]. This has shown that personality qualities were nearly as stable as intellect throughout the course of a person's life. This finding reveals a reasonable interpretation of the reason why antisocial behaviour remains constant, as some personality traits do as well.

Therefore, it might be of great importance to explore more in this aspect. When it comes to antisocial behaviour, some personality traits may serve as a core focus for intervention or preventative strategies. It can also be used as a method to shield potential victims in the future [7].

It is suggested that utilising fundamental personality models can significantly advance our understanding of antisocial behavior and has to be taken into account when elucidating this kind of

behavior [8]. In order to more precisely define the relationship between personality and antisocial behaviour, researchers examined participants' antisocial behaviours on the scale of the Five Factor Model. Three domains (Neuroticism, Agreeableness, and Conscientiousness) were selected to be examined to determine the relationship between antisocial behaviour. The findings of this study indicate that each of the three domains contributed significantly. And the outcomes are most consistently correlated with the aspects of the agreeableness dimension [3]. The conclusion contributed to the argument that agreeableness could be linked to antisocial behaviour, directly or indirectly [9]. A recent meta-analysis also concluded that agreeabless among all five factors has the strongest negative relationship with antisocial behaviour [10]. As a result, it comes to a possible conlcusion that personality could serve as a potential barrier to antisocial conduct.

The Five Factor Model (FFM) is one of the most authoritative personality tests that is widely used in research. This model suggested five broad dimensions of personality, identified as Extroversion, Agreeableness, Conscientiousness, Neuroticism, and Opensess [11]. In this study, a single dimension (agreeableness) of the FFM is also used as a variable to measure the degree of antisocial behaviour. Agreeableness is related to a person's interpersonal relationships: for example, if a person scores high in agreeableness, he or she will tend to be more trustful, frank, and empathic. As reviewed above, few studies have claimed that agreeableness and antisocial behaviour tend to be negatively associated. Therefore, this study aims to verify this theory in more depth.

In the current study, a single domain (agreeableness) of the FFM was used to examine the relation between this dimension and some self-report tendencies of antisocial behaviour. Based on the previous work, it is expected to observe a negative association between these two variables. It is hypothesized that people who are prone to being manipulative, haughty, dishonest, disobedient, and lacking in empathy ought to act antisocially more frequently. Besides, age is added to this study as a moderator since there is a lack of research examining the influence of age in this topic.

2. Methods

2.1. Participants

A total of 212 participants were recruited in this study, all of whom were voluntary to participate in this study. The majority of participants were peers of the researcher, so the age of most of the participants was around 20. However, a large range of ages could be seen when analyzing the data, as the minimum age was two years old, and the maximum age was 82 years old. The average age of all participants was 26.11. Gender and ethnicity information were not collected. As this questionnaire was spread using Chinese social media, it is certain that all participants have a Chinese cultural background.

2.2. Materials

An antisocial behaviour questionnaire and an FFM (only the agreeableness part) questionnaire were applied in this study. A teenager version was chosen for the antisocial behaviour questionnaire [12], . As this study aimed to investigate people of all ages, certain questions in this questionnaire were deleted or rephrased to fit the context. There are 30 questions in total in the original questionnaire. After deletion and rephrasing, there are 26 questions remaining, including 11 questions on externalisation and 15 questions on internalisation. For the FFM questionnaire, there are 36 questions in total. Due to the topic being about agreeableness, only questions that measure agreeableness were chosen. As a result, seven questions of the FFM questionnaire were added to the final questionnaire. Thus, 33 questions were included in this questionnaire, with one question asking the age of participants.

For the antisocial behaviour questionnaire, there is a four-point Likert scale for participants to choose from, with "1" meaning "completely inconsistent" and "4" standing for "completely consistent." For the agreeableness questionnaire, a similar scale was applied, whereas a five-point Likert was applied, with "1" standing for "not like me at all" and "5" standing "very much like me."

2.3. Procedure

An online questionnaire tool was used to form the questionnaire. The social media of WetChat spread the questionnaire, and all participants were voluntary to fill out the questionnaire.

The participants were first informed of the basics of the study. After the consent form was signed, they were asked to fill out 26 questions of the antisocial behaviour questionnaire. Then, seven questions about agreeableness were presented. After completing all the questions, they were asked about their age in the final step. Participants were informed that they were free to leave the web page of the questionnaire at any time point if certain questions made them feel uncomfortable or for any other reason. Finally, debriefed information of the study was presented to all participants.

3. Results

Both the scores for agreeableness and antisocial behaviour were averaged to obtain the mean score. The results were analysed using a correlation and a regression model. All assumptions had been checked with no violation. First, the correlations were examined between both the predictor variable and the moderator and the measures of antisocial behaviour. Both the coefficients of correlation and descriptive information are listed in Table 1 below.

Table 1. Intercorrelations, means and standard deviations

	Agreeableness	Age	Antisocial
Agreeableness		0.01	-0.24***
Age			-0.22**
Antisocial			
M	3.99	26.11	1.91
SD	0.81	11.45	0.58

*** $p < 0.001$, ** $p < 0.01$.

As shown in Table 1, the correlation between agreeableness ($M = 3.99$, $SD = 0.81$) and antisocial behaviour ($M = 1.91$, $SD = 0.58$) is significant, which is -0.24, $p < 0.001$. Besides, the correlation between age ($M = 26.11$, $SD = 11.45$) and antisocial behaviour is also significant ($r = -0.22$, $p < 0.01$). However, no significant correlation is found with age and agreeableness ($r = 0.01$, $p = .914$).

After looking at the correlation, a linear regression model was used to examine the amount of variability in antisocial behaviour that could be explained by the predictor variables. The results of regression modelis shown below in Table 2.

Table 2. The linear regression model to predict antisocial behaviour

	Unstandardized coefficients		Standardized coefficients		
Model	*B*	SD	*β*	*t*	*p*
(Constant)	1.91	.04		50.88	< 0.001
Centred agreeableness	-.19	.050	-.27	-3.84	< 0.001
Centred age	-.01	.00	-.21	-3.19	< 0.01
Agreeableness×age (centred)	.00	.00	.08	1.19	.234
R^2	.113	p <.001			
Adjusted R^2	.100				

To summarise, the overall model of agreeableness and age were significant predictors of antisocial behaviour, $F(3, 208) = 8.86$, $p < .001$), $AdjR^2 = .100$. According to the coefficients, as the agreeableness score increases, the score for antisocial behaviour decreases significantly ($\beta = -0.19$, $t = -3.84$, $p < 0.001$). The relationship between age and antisocial behaviour score was also significant ($\beta = -0.01$, $t = -3.19$, $p < 0.01$). However, antisocial behaviour score was not predicted by the interaction between agreeableness score and age ($\beta = 0.00$, $t = 1.19$, $p = 0.234$).

4. Discussion

This study has looked at how agreeableness of the Five Factor Model is associated with antisocial behaviours and if the relationship was moderated by participant's age. Several recent studies revealed that agreeableness is the primary dimension that is related to antisocial behaviour. In this study, a correlation between all three variables has been examined, and a regression analysis was also conducted. The results revealed that there is a large contribution of agreeableness in order to predict antisocial behaviour, and a smaller relationship between age and antisocial behaviour was also found. Both predictors show a negative relationship to the outcome variable. Most of the results have met the hypotheses. However, no relationship between antisocial behaviour and the interaction between agreeableness and age was found.

These results are consistent with previous research, showing a negative association between agreeableness and antisocial behaviour. However, the limitations of this study should not be ignored. As no relationship between antisocial behaviour and the interaction between agreeableness and age was found, the reason could be due to the imbalance of age structure of the data collected. As mentioned above, most participants are acquaintances of the researcher, as a result of the situation that most participants' ages are around 20. Although there are several participants of much younger or older age, the majority of participants are around 20. This has led to an imbalance of age. To solve this problem, further research should adjust the age structure and see if each age group has approximately the same quantity of participants. Another problem is with the gender. In this study, no gender information was collected. However, it could be interesting to see if there are any gender differences. Furthermore, the questionnaires used in this study are all teenager versions. Due to the aimed subjects being people of all ages, the version of the questionnaires could not be very appropriate. Instead, more concrete and more comprehensive dimensions should be applied to measure participants' personalities and behaviours. As in previous research, in order to measure antisocial tendency, researchers used five dimensions, including hostility, antisocial personality disorder characteristics, the range and beginning of behavioral issues, and their stability and consistency [3].

In general, the findings of this study are consistent with previous research and add more reliability to the field. This has several meanings, not only to the academic community but also to society. First, more trustworthy intervention implications were obtained. For instance, this has provided parents with opportunities to identify antisocial traits of their children much earlier, as agreeableness has been demonstrated to be negatively related to antisocial behaviour. This allows for more effective interventions to be taken. Not only children but adults with similar exhibitions could also be paid attention to and attached importance to. With problems being discovered, corresponding training could be taken. When a child is prone to lying, for instance, parents are trained to discipline the child when they suspect misconduct or lying rather than attempting to get the child to confess or demanding hard proof of the misbehavior [13].

This study has provided further evidence of the association between personality and antisocial behaviour. Future research could focus more on the reason and logic behind this phenomenon, and more applicable interventions are required.

5. Conclusion

In conclusion, this study has demonstrated the association between the agreeableness dimension of personality and antisocial behaviour. Besides, there is no moderation of age found in this study. Most results of this study are consistent with previous research, while the effects of age require further research. The results of this study generally support earlier studies and increase the field's credibility. This has multiple implications for society as well as the academic community. First, more reliable implications for interventions were found. As agreeableness has been shown to be inversely correlated with antisocial behavior, for example, this has given parents the chance to spot antisocial qualities in their children far sooner. This enables the use of more successful therapies. Adults can

also pay attention to and place value on comparable shows, in addition to youngsters. However, as issues are found, appropriate training may be undertaken. This study has added to the body of research supporting the link between personality and antisocial behavior. Future studies could concentrate more on the logic and cause of this occurrence, and more effective solutions are needed.

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