The Effect of Crime Type and Knowledge about Autism Spectrum Disorder (ASD) on the Judgement of Defendants with ASD

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This thesis used both person first and identity first language to refer to individuals with ASD as there is diversity to what people prefer within the ASD community.

Abstract

Research has shown that defendants with ASD are judged more leniently than defendants for whom no diagnosis is mentioned (Berryessa et al., 2015; Maras et al., 2019; Sturges & Nuñez, 2021). However, to date, no studies have investigated whether knowledge about ASD is a requirement for ASD to be a mitigating factor on juror decision making. Additionally, none of these studies tested the effect of the type of crime on the judgement of the autistic defendants. However, understanding how knowledge about ASD and crime type affect the judgement of autistic defendants is important for training employees in the criminal justice system. Therefore, this study tested the effect of knowledge about ASD and type of crime on the judgement of autistic defendants in a 3 (crime type: assault vs. stalking vs. burglary) × 3 (defendant information: "ASD + Knowledge" vs. ASD vs. control) within-between subjects experimental design. Participants were divided between three groups. In the "ASD + Knowledge" group and the ASD group participants judged an autistic defendant. In the "ASD + Knowledge" group, participants additionally received information about ASD. All participants judged each of the three different cases. The assault case and the stalking case could be related to ASD symptoms and the burglary case could not be related to ASD symptoms. Results showed that for the autism relevant crimes, defendants with ASD received lower sentences than defendants for whom no diagnosis was mentioned. However, autistic defendants were not judged more leniently for the crime that was not relevant for ASD. A number of participants indicated that they considered that the burglary case could not be linked to symptoms of ASD. Thus, participants did not simply give a preferential treatment to autistic defendants. Instead they considered how ASD symptoms were related to the offense. Although there was a clear effect of crime type on the judgement of defendants with ASD, no difference was observed between the participants that did and the participants that did not receive information about ASD.

Keywords: *Autism spectrum disorder; Defendant; Sentencing; Criminal justice*

Introduction

Autism Spectrum Disorder (ASD) is a developmental disability characterized by deficits in social communication and social interaction, and restricted, repetitive patterns of behaviour, interests or activities including hyper- or hyporeactivity to sensory input (Hodges et al., 2020; Lord et al., 2018). Just like individuals in the general population, autistic individuals may come into contact with the criminal justice system. When someone with ASD comes into contact with the criminal justice system, it is important to consider their diagnosis. Due to the nature of ASD symptoms, there can be a difference in types of offenses and motives between offenders with and without ASD. For example, autistic offenders are more likely to commit crimes against persons than crimes against property (e.g., Blackmore et al., 2022; Cheely et al., 2012; Heeramun et al., 2017; Kumagami & Matsuura, 2009). Additionally, ASD symptoms such as idiosyncratic interpretations of people and events, lack of social understanding, and obsessive thoughts and behaviours are often related to the motives of an offense committed by someone with ASD (Helverschou et al., 2015). Because of these differences in types of offenses and motives, it is important to know whether offenders with ASD are judged differently than offenders without ASD and whether the type of offense affects these differences.

It has already been shown that offenders with autism are judged more leniently than offenders without autism (Berryessa, 2016, 2018; Berryessa et al., 2015; Maras et al., 2019; Sturges & Nuñez, 2021). However, even though there can be a link between ASD symptoms and the type of offense, whether the type of offense affects the judgement of defendants with ASD has not been studied yet. Therefore, this study investigated whether the judgement of autistic offenders differs when a crime can be linked to the symptoms of ASD compared to when a crime cannot be linked to symptoms of ASD. Moreover, there is no literature available on the effect of knowledge about ASD compared to the absence of knowledge about ASD on the judgement of defendants with ASD. However, understanding how knowledge about ASD affects the sentencing decisions for defendants with ASD is valuable information for training employees in the criminal justice system and for preparing cases. For this reason, this study builds on the existing literature by investigating whether specific knowledge about the relation between ASD symptoms and criminal behaviour influences the judgement of autistic defendants.

ASD and Criminality

The literature does not provide strong evidence to suggest whether individuals with ASD are more or less likely to offend than individuals without ASD (King & Murphy, 2014;

Mouridsen, 2012). Considering the prevalence of autistic individuals in the criminal justice system, studies suggested that autistic individuals are slightly overrepresented as offenders (King & Murphy, 2014). However, comparing autistic individuals with non-autistic comparison groups showed that individuals with ASD are no more or even less likely to commit illegal offenses (King & Murphy, 2014; Mouridsen, 2012). While there is no proof that there is a difference in the amount of crime committed by autistic individuals compared to general population, there may be a difference in the types of crime committed by autistic offenders. The crimes committed by autistic offenders are often associated with ASD symptoms. Research has shown that offenders with ASD are more likely to have committed crimes against persons such as violence, sexual harassment, and stalking (Cheely et al., 2012; Heeramun et al., 2017; Helverschou et al., 2015; Kumagami & Matsuura, 2009; Stokes et al., 2007). On the contrary, populations of offenders with ASD show lower rates of crimes against property such as trespassing, theft, and burglary (Blackmore et al., 2022; Cheely et al., 2012; Helverschou et al., 2015; Kumagami & Matsuura, 2009). Other types of crimes that have a lower prevalence among offenders with ASD are probation violations, traffic violations, and substance abuse (Blackmore et al., 2022; Cheely et al., 2012; King & Murphy, 2014). The differences in types of offenses committed by autistic offenders suggests that autistic offenders' criminal motives may be associated with their autistic traits.

ASD Symptoms Associated with Criminal Behaviour

One of the symptoms of ASD that can be associated with criminal behaviour is social cognitive deficits (Haskins & Silva, 2006). Deficits in social cognition can cause individuals with ASD to have difficulties with sharing another person's emotional state, understanding why other people behave in a certain way and anticipating consequences (Baron-Cohen, 2000, as cited in Westphal & Loftin; Westphal & Loftin, 2021). For this reason, individuals with ASD might not understand the impact of their behaviour on others which may contribute to sexual offenses (Haskins & Silva, 2006; Loftin, 2021). For example, sexual offenders with ASD indicated in a self-report study that they did not understand the other person and their feelings and that they did not understand the seriousness and the consequences of their behaviour (Payne et al., 2020). Similarly, deficits in social cognition can increase the risk of stalking behaviour in autistic individuals as a result of misunderstanding the impact of their behaviour on others (Sperry et al., 2021; Stokes et al., 2007).

Another ASD symptom that can be a risk factor for stalking is obsessive narrow-focused interests. Particularly in combination with social cognitive deficits, when an individual has an obsessive narrow-focused interest in another person, this may result in

stalking (Haskins & Silva, 2006; Sperry et al., 2021). For example, compared to the general population, individuals with ASD were found to persist in a relationship for longer periods of time when receiving negative responses or no responses from the other person (Stokes et al., 2007). Even though most of the time obsessive narrow-focused interests do not contribute to criminal behaviour, they can be associated with a variety of other offenses besides stalking (Haskins & Silva, 2006). Several case studies have linked obsessive narrow-focused interests to criminal cases such as arson, theft, and violence (Barry-Walsh & Mullen, 2004; Chen et al., 2003; Haskins & Silva, 2006; Shields & Beversdorf, 2021).

Another symptom of ASD that can contribute to criminal behaviour is deficits in executive functioning (Shields & Beversdorf, 2021; Westphal & Loftin, 2021). Executive functioning concerns a number of cognitive abilities such as planning, emotion regulation, working memory, and inhibition control, and is important for voluntary decision making (Happé et al., 2006; O'Hearn et al., 2008). Due to executive functioning deficit, individuals with ASD can have difficulties with planning, mental flexibility, and inhibition which can cause rigidity in thought and behaviour (Happé et al., 2006; Hill, 2004). Executive function deficits can decrease the likelihood of crimes that require planning such as burglary (Cheely et al., 2012). However, difficulties with emotion regulation and inhibition control may lead to aggression and even violence (Lerner et al., 2012; Westphal & Loftin, 2021). Additionally, someone with ASD can experience oversensitivity to stimuli such as light, sound and touch (Lord et al., 2018). Due to symptoms such as rigidity in thought and behaviour, and oversensitivity, certain situations can be particularly distressing for someone with ASD. When these distressing situations become too overwhelming, this can result in a meltdown (Shields & Beversdorf, 2021; Westphal & Loftin, 2021). A meltdown is an involuntary physical or emotional response to a distressing situation in an attempt to escape from the situation (Bedrossian, 2015). Since meltdowns may include aggressive behaviour or angry outburst (Bedrossian, 2015), a meltdown may be misinterpreted as violence. However, during a meltdown, someone has often little to no control over their behaviour (Bedrossian, 2015; Chown et al., 2021).

Comorbidity in autistic individuals with other psychiatric disorders such as Attention Deficit Hyperactive Disorder (ADHD) or mood disorders is common (Allely, 2021). Research demonstrated that comorbidity with other psychiatric disorders, particularly ADHD and conduct disorder, can be a risk factors for violent and criminal behaviour in the ASD population (Allely, 2021; Blackmore et al., 2022; Heeramun et al., 2017; Westphal & Loftin, 2021). Both ADHD and conduct disorder are more directly linked to criminality since

childhood diagnosis with ADHD and/or conduct disorder are risk factors for anti-social and violent behaviour later in life (Satterfield et al., 2007; Selinus et al., 2015). When controlling for conduct disorder and ADHD, Heeramun et al. (2017) found no increased risk for violence in ASD groups and even found a decreased risk for violence in ADHD and conduct disorder when co-occurring with ASD.

In conclusion, research has shown that symptoms of ASD are often related to the motive and the types of offenses committed by offenders with ASD. Therefore, certain behaviours of autistic individuals might be misinterpreted as deliberate offenses while someone may have acted out of impulse or misunderstanding. The next section shows how the differences between autistic and non-autistic offenders affect the judgement of offenders in the court room.

Judgement of ASD Defendants

Several studies have investigated the effect of ASD on juror decision making. Interviews with judges showed that the majority of the judges indicated that ASD was a mitigating factor for sentencing defendants (Berryessa, 2016). Similarly, studies using mock jurors found that mock jurors also gave milder sentences when the defendant was autistic (Berryessa et al., 2015; Maras et al., 2019; Sturges & Nuñez, 2021). Berryessa (2018) argues that the mitigating effect of ASD on sentencing decisions can be explained by an increase in social acceptance of ASD. Additionally, Maras et al. (2019) found that defendants with ASD were viewed as more likeable. Participants in their study explained that they were more sympathetic of the unlikeable behaviours of autistic defendants because they saw it as a by-product of the ASD symptoms rather than a personal characteristic. Participants in the study of Maras et al. (2019) also described the autistic defendant as more honest since they assumed that the defendant with ASD would not lie.

Defendants with ASD are also judged more leniently because they are perceived to have decreased personal, moral, and criminal responsibility (Berryessa, 2018; Berryessa et al., 2015; Maras et al., 2019; Sturges & Nuñez, 2021). However, an ASD diagnosis did not affect the perceived legal responsibility of the defendant (Berryessa et al., 2015). Thus, people think that defendants with ASD should be punished for their crimes as they did not follow the law. However, they do receive some leniency for a decrease in choice or intentions to act according to or against what they think is wrong or right (Berryessa et al., 2015).

All studies on this topic used cases that are relevant for ASD symptoms. Therefore, we do not know yet whether autistic defendants are judged more mildly in general or if they are only judged more mildly when the criminal behaviour can be linked to ASD symptoms.

However, since leniency is provided for diminished responsibility and allowances are made for behaviours associated with ASD, autistic defendants may be judged differently for cases that are not relevant for ASD symptoms. Additionally, since previously mentioned studies all provided information about ASD, it is not yet clear whether knowledge about ASD is a requirement for the mitigating effect of ASD on sentencing decisions.

Knowledge about ASD

Study showed that autistic offenders received leniency when ASD information was provided (Berryessa et al., 2015; Maras et al., 2019; Sturges & Nuñez, 2021) However, autistic offenders might not necessarily receive leniency when knowledge about ASD is low due to possible prejudice and misconceptions about ASD. Research showed that media reports about violence and criminality linked to individuals with ASD contribute to misconceptions, unjustified stigmatisation and negative attitudes towards ASD (Brewer et al., 2017; Del Pozzo et al., 2018). On the contrary, positive educational messages about ASD have a positive effect on attitude towards ASD (Brewer et al., 2017). The majority of the literature about the relation between knowledge about ASD and attitude towards ASD showed that there is a positive correlation between knowledge about ASD and attitude towards ASD. For example, Au and Lau (2021) showed that private music teachers with more knowledge about ASD have a more positive attitude towards individuals with ASD. Moreover, Lu et al. (2020) found a positive correlation between ASD knowledge and attitude towards ASD among primary school teachers in Guangdong.

The relation between knowledge about ASD and attitude towards ASD is mediated by negative stereotypes such as perceived dangerousness (Lu et al., 2022). This shows that a lack of knowledge about ASD might contribute to misconceptions and stigmatisation. Therefore, increasing knowledge about ASD could contribute to decreasing stigmatisation and misconceptions about ASD. However, White et al. (2019) argue that certain misconceptions about ASD have a bigger influence on attitude than factual knowledge. Nonetheless, previous studies showed that autistic defendants were judged more leniently after providing information about ASD to the jurors (Berryessa et al., 2015; Maras et al., 2019; Sturges & Nuñez, 2021). Therefore, misconceptions probably did not have a large influence on sentencing decisions after information about ASD was provided. Yet, since all these studies provided information about ASD, it is not clear whether this information is a requirement for ASD to be a mitigating factor on sentencing behaviour. Misconception and stigmatisation might have a bigger influence on sentencing behaviour when no information is provided.

Current Research and Hypotheses

This study investigated whether knowledge about ASD is a requirement for the mitigating effect of ASD on sentence length (e.g., Berryessa et al., 2015; Maras et al., 2019). Research has shown that people might have misconceptions about ASD and criminality (Brewer et al., 2017; Del Pozzo et al., 2018) and that education about ASD can decrease these misconceptions (Brewer et al., 2017; Lu et al., 2022). However, previous studies about the judgement of autistic defendants all provided information about the relation between the ASD symptoms and the criminal behaviour. Therefore, it is not yet known whether these misconceptions influence the judgement of autistic defendants when no information is provided. An experiment was conducted in which participants had to judge the sentence length and perceived seriousness of criminal cases with and without an autistic defendant and with and without additional information about ASD and criminality. Expectations are that participants assign lower sentence lengths and perceive the crime to be less serious when judging a case with an autistic defendant compared to a case with a defendant for whom no diagnosis was mentioned, but only when participants received additional information about ASD and criminality (H1).

Moreover, this study investigated whether the type of crime influences the mitigating effect of ASD on sentencing behaviour. Previous studies about the judgement of autistic defendants all focused on criminal cases that could specifically be linked to symptoms of ASD (e.g., Berryessa, 2016; Maras et al., 2019). Nonetheless, some types of criminal behaviour can clearly be linked to symptoms of ASD, whereas other types of criminal behaviour cannot (Cheely et al., 2012; Helverschou et al., 2015; Kumagami & Matsuura, 2009). However, we do not know yet whether defendants with ASD are judged more leniently in general or if defendants with ASD are only judged more leniently when the criminal behaviour is related to ASD symptoms. Therefore, the experiment included three different cases of which two can be related to symptoms of ASD (i.e., assault and stalking) and one cannot be related to symptoms of ASD (i.e., burglary). Because the mitigating effect of ASD on sentencing behaviour is partially explained by a decrease in perceived responsibility (Berryessa, 2018; Sturges & Nuñez, 2021), it is sensible to expect that this mitigating effect is higher for crimes that can be linked to the symptoms of ASD. Therefore, expectations are that participants only assign lower sentence lengths and perceive the crime to be less serious when judging an autistic defendant for the cases that can be related to symptoms of ASD and not for the case that cannot be related to symptoms of ASD (H2).

Methods

Design

In the following study, I used a 3 (crime type: assault vs. stalking vs. burglary) × 3 (defendant information: "ASD + Knowledge" vs. ASD vs. control) within-between subjects design. All participants were presented with three criminal cases in random order. The defendant information was manipulated between subjects. In both the ASD group and the "ASD + Knowledge" group, participants were told that the defendant had an ASD diagnosis, while in the control group, there was no mention of any developmental disabilities or mental disorders. In the "ASD + Knowledge" group, participants additionally received information about ASD before reading the cases. After reading each case, participants were asked to judge what sentence length they thought was appropriate for the crime and how serious they perceived the crime to be.

Participants

Participants were randomly divided between the "ASD + Knowledge" group, the ASD group and the control group. A power analysis using G*power 3.1.9.7 was performed to determine the minimum sample size required to test the hypotheses. For testing main effects and interaction effects in a 3 x 3 within-between subjects design, a minimum sample size of 108 is needed to achieve 80% power for detecting a medium effect size (f = .25) at a significance level of a = .05. The decision for detecting a medium effect size rather than a small effect size has been made because the required sample size for detecting a small effect size (n = 648) was simply not feasible within the given time frame for a master's thesis. Because the effect size chosen is quite a rough approximation, the aim was to gather 150 participants for additional precision. Participants were gathered via snowball and convenience sampling techniques. The link to the study was shared via social media platforms such as Facebook, Instagram, LinkedIn and WhatsApp. Additionally, participants were gathered via the SONA-system of the University of Twente.

To be included, participants needed to finish the questionnaire, give informed consent, be at least 18 years old, read the information and case vignettes carefully, and have good understanding of the information and case vignettes. Of the 211 responses, 58 were excluded because the questionnaire was not finished. The time to complete the questionnaire and the quantity of missing values were examined to determine whether someone read the information carefully. This led to the exclusion of five additional responses. Whether participants had a good understanding of the information and the case vignettes was tested by adding a control question. Participants were asked to indicate, on a scale from 1 to 10, how

well they understood the information and the case vignettes. A 1 meant that the participant did not understand anything they read and a 10 meant that the participant understood everything perfectly. Participants who had a score below 5 were excluded. The cut off score was 5 because on a 10-point scale, a 5 implies that someone has as much uncertainty as certainty about understanding the information and the case vignettes. Two participants scored below 5 and were therefore excluded. In the remaining sample, none of the participants were below the age of 18 or did not give informed consent. After exclusion, the final sample consisted of 146 participants of which 47 were in the "ASD + Knowledge" group, 49 were in the ASD group and 50 were in the control group.

The age of the participants ranged from 18 to 78 (M = 31.0, SD = 13.8). The majority of the participants were female (61%) and all other participants were male (39%). Additionally, the majority of the participants were Dutch (56%). However, a diverse mix of nationalities was observed. There were respondents from Germany (18%), the United Kingdom (10%), other European countries (6%), Asia (3%), and other countries that could not be specified within those categories such as countries in the United States of America or Latin-America (6%). Finally, participants had diverse educational backgrounds. Participants' highest completed educations included Higher Vocational Education (26%), Secondary Education (24%), a master's degree (16%), a bachelor's degree (14%), Secondary Vocational Education (12%), and a doctorate degree (2%). Six percent of the participants preferred not to mention their educational background or had an educational background that could not be specified within the provided categories.

Materials

Information in the Waiting Room

Before judging the three criminal cases, participants were asked to imagine that they were in the waiting room of the courthouse awaiting the trial. While waiting, participants received a flyer with information. The "ASD + Knowledge" group received the ASD flyer which contained information about ASD and the risk factors in ASD for criminality that are relevant for two of the three criminal cases that the participants judged. The risk factors that were explained on the flyer were difficulties with inhibition control and emotion regulation, sensory sensitivity, deficits in social cognition, and obsessive narrow-focused interests. The ASD flyer can be found in Appendix A. The ASD group and the control group received a movie flyer which contained information about the top five most popular movies of all time. The movie flyer was about the same length as the ASD flyer and was included to maintain

balance between the three different defendant information groups. The movie flyer can be found in Appendix B.

Case Vignettes

After reading the information in the waiting room of the courthouse, participants were told that they had entered the court room to judge three different criminal cases. The three case vignettes were presented in random order. The case vignettes included two crimes that can be related to ASD (i.e., assault and stalking) and one crime that is not related to ASD (i.e., burglary). All case vignettes can be found in Appendix C.

Assault. The first case was based on a case example described in Debbaudt (2002). The case for this study described a police officer following Dennis, an adult male on a bicycle, with his car. Once the officer and Dennis arrive at a house, the officer tried to stop Dennis from going inside the house by touching his shoulder. At this point, Dennis attacked the officer. The case left out any details that indicate the defendant might be autistic to avoid bias in the control group. However, the behaviour of Dennis is relevant for ASD. The information provided before the cases in the "ASD + Knowledge" group explained that someone with ASD might experience a meltdown due to sensory overload which can be misinterpreted as aggression (Bedrossian, 2015; Chown et al., 2021; Lord et al., 2018; Westphal & Loftin, 2021). Because the assault case explained a situation that can be very overwhelming for someone with autism, it can be expected that the assault that took place was a result of a meltdown due to sensory overload rather than aggression.

Stalking. The second case was inspired by two stalking cases described in the literature. One case was the case of KD who stalked his therapists (Barry-Walsh & Mullen, 2004; Shields & Beversdorf, 2021). The other case was about Mr. B who randomly selected individuals from a phonebook he could memorize as a savant and started repeatedly calling them from public phones (Ventura et al., 2022). In the case vignette, Tim started stalking an old university professor who taught his favourite subject. I refrained from using the defendant's therapist as the victim because seeing a therapist could indicate that the defendant is neurodivergent or has a mental disorder which could bias the control group. Moreover, Tim looked up the university professor online rather than in a phonebook because this fits better with today's society. This case was relevant for ASD because literature has shown that several symptoms of ASD can increase the risk of stalking. The information provided before the cases in the "ASD + Knowledge" group described that social cognitive deficits and narrow-focused obsessive interests can be a risk factor for stalking. Even though Tim got several warnings to stop contacting the professor, he continued. This indicated that social cognitive deficits might

have contributed to the stalking (Sperry et al., 2021; Stokes et al., 2007). Additionally, Tim targeted a university professor that taught his favourite subject which indicated that an obsessive narrow-focused interest might have contributed to this crime (Sperry et al., 2021).

Burglary. Burglary is an example of a crime that is not relevant for autism. Literature showed that offenders with ASD are more likely to have committed crimes against persons than crimes against property such as burglary (Blackmore et al., 2022; Cheely et al., 2012; Helverschou et al., 2015; Kumagami & Matsuura, 2009). Additionally, Cheely et al. (2012) suggested that individuals with ASD, due to deficits in executive functioning, are less likely to commit crimes that require planning such as burglary. In contrast to the other two cases, this case was not specifically based on a case described in the literature. However, when designing this case a few aspects were considered. For all three cases it was important that the defendant was caught and that there was no ambiguity about the defendant's guilt. Because assault and stalking are more personal crimes, there is a smaller chance of uncertainty regarding the identity of the perpetrator. However, for the burglary case this could be more ambiguous. For this reason, the victim was at home during the burglary and was able to identify the burglar, Thomas. Second, the maximum sentence for burglary increases when a defendant used forced entry to get into a home (Overheid.nl, 2022). To decrease the gap between the maximum sentence lengths for the three cases, Thomas did not use forced entry to get into the victim's home. Instead he used an unlocked backdoor.

Defendants. The information about the defendant was kept limited. Participants were only told the defendant's name, age, and diagnosis (in the experimental conditions). The information was kept limited to diminish the chance of confounding the experimental stimuli (Babbie, 2016). If participants would have had more information about the defendant, it might have been harder to isolate the effect of the defendant's diagnosis as it would be more likely that other factors would have influenced the sentence length. In all case vignettes, the defendant had a male name. The decision for a male name has been made because statistics showed that in the year 2021 in The Netherlands, male suspects were overrepresented in crimes involving assault (86.5%), stalking (91.0%) and burglary (87.7%) (Centraal Bureau voor de Statistieken [CBS], 2022). Moreover, Blackmore et al. (2022) found that being male is a risk factor for criminality within the ASD population. The names of the defendants (Dennis, Tim and Thomas) were based on a lists of popular Dutch baby names in the years the defendants would have been born according to their age (Meertens Instituut, n.d.; Voormijnkleintje.nl, 2020). The defendants in the case vignettes were between 25 and 45 years old. Crime statistic showed that for assault (47.1%), stalking (49.6%) and burglary

(51.9%) the most common age group for male suspects in The Netherlands in the year 2021 was between 25 and 45 years old (CBS, 2022).

Dependent Variables

Sentence Length

In numerous countries, it is customary to use the assistance of laypeople to judge a criminal case. The court of the United States of America (USA), for example, uses a jury during criminal trials to determine the guilty verdict (United States Courts, n.d.). In the Netherlands however, the justice system does not use the assistance of laypeople to judge a criminal case. Therefore, for this study, participants were told that they had to judge the criminal cases as an experiment by the government to assess the effectiveness of using the assistance of laypeople when judging defendants in court. However, whereas the jury in the example about the court of the USA judges the guilty verdict (United States Courts, n.d.), in this study participants had to judge which sentence they thought was appropriate for each of the three cases. Specifically, they had to indicate the amount of prison time they would give the defendant for the crime they committed.

For each case, participants were asked to specify how many months of prison time they thought were appropriate for the crime the defendant committed. To answer this question, participants indicated the number of months on a slider. Based on the Dutch book of criminal law, they could choose between one month and 72 months (i.e., six years) of imprisonment. A case of violence against an officer on duty with minor physical injury is punished with a maximum imprisonment of five years, a case of stalking is punished with a maximum imprisonment of three years and a case of theft on someone's property without consent from the property owner and without forced entry is punished with a maximum imprisonment of six years (Overheid.nl, 2022). Of the three cases, the burglary case has the longest maximum imprisonment. Because the maximum imprisonment for the burglary case is six years, participants were able to choose a sentence up to six years (i.e., 72 months).

Perceived Seriousness

Because there is some variation in severity of the crimes considering the maximum punishment in the Dutch book of criminal law, an additional dependent variable measured the perceived seriousness of the crime. Using a single item scale, participants were asked to indicate how serious they thought the crimes in the case vignettes were compared to other crimes of the same type on a five point Likert-scale (*much less serious*, *less serious*, *similar in seriousness*, *more serious*, *much more serious*) with the following item: "how serious do you think this case of assault/stalking/burglary is in comparison to other cases of

assault/stalking/burglary?". With this item, the seriousness of the cases was measured independent from the variation in severity between the different cases.

Exploratory and Control Variables

During the experiment, some participants might have been influenced due to previous knowledge about ASD or the criminal justice system, having ASD, or suspecting to have ASD. Therefore, this study included four control variables. The first control variable measured whether participants were familiar with criminal law by, for example, working with it or learning about it in school. The second control variable measured whether participants were diagnosed with ASD. The third control variable measured whether participants have reasons to suspect they might have ASD. The fourth control variable measured whether participants were already familiar with ASD before participating in the research. All four control variables were measured by asking a question that was answered by selecting *yes* or *no*. Additionally, if participants answered that they were familiar with criminal law, they were asked to explain how they became familiar with it in an open answer. Moreover, if participants answered that they were familiar with ASD, they were asked how they became familiar with ASD. To answer this question, participants selected one or multiple answers from the following options: *I have a close relation (partner, family, friend) with someone with autism spectrum disorder*, *I work or have worked with people with autism spectrum disorder*, *I learned about autism spectrum disorder in school,* and *other*.

To explore whether having traits associated with ASD influenced the judgement of defendants with ASD, the experiment included the Autism-Spectrum Quotient (AQ). This measure was included because people who score high on the AQ may consider the behaviour of the defendant to be more appropriate because of their own traits. The AQ is a short screening developed by Baron-Cohen et al. (2001) that measures to which degree an adult with normal intelligence has certain traits that are associated with ASD. A study among the general population and students in the Netherlands showed that the AQ is a reliable and valid instrument to measure individual differences in autistic traits (Hoekstra et al., 2008). The AQ consists of 50 items. Each item is a statement for which participants indicate, on a 4-point Likert-scale, to what degree they agree with the statement (*definitely agree, slightly agree, slightly disagree, definitely disagree*). The AQ consists of five different areas that are each made up of 10 items. These areas are social skill, attention switching, attention to detail, communication and imagination. A list of all the items of the AQ and instructions for scoring the AQ can be found in Appendix D.

All the control and exploratory variables described above, including the AQ, were measured after the experiment. This decision has been made to prevent bias in the control group. The majority of the control and exploratory variables are about autism. This might cause the participants in the control group to assume the defendant is autistic while they are supposed to judge the cases without considering an ASD diagnosis for the defendant.

Lastly, for each of the three cases, after judging the sentence length, participants were asked why they picked that sentence length for the particular case. Participants could respond to this question in an open answer box. This question has been added to explore the deeper meaning of the data by investigating the rationales for the sentencing decisions. The open questions were analysed via content analysis.

Procedure

Before the data was collected, the research project was approved by the BMS ethics committee (No. 221188). After approval, participants could enter the study by clicking on a link that led them to the online Qualtrics questionnaire. First, participants were welcomed to the study and got general information about the study. After giving informed consent, participants were asked to answer four demographic questions about age, gender, nationality and education. Hereafter, participants were randomly divided between one of the three defendant information groups an received the information about either ASD or movies in the virtual waiting room. After reading the information in the virtual waiting room, the participants entered the virtual court room to judge the three different cases. The case vignettes were presented in random order. After each case, the participants were asked to judge the sentence length and the perceived seriousness of the case. Additionally, participants were given the opportunity to explain why they decided to choose a specific sentence length. When the participants were finished judging all three cases, they filled in the AQ and answered the control and exploratory questions. Throughout the whole questionnaire, participants were able to continue the questionnaire without answering all the questions. Study has shown that nonresponse strongly increased when participants were forced to answer all the questions (Kmetty & Stefkovics, 2022). Lastly, participants were debriefed about the aim of the research and they got the opportunity to leave comments about the experiment in a comment box. Participants could, for example, give feedback if they thought something was unclear.

Data Analysis

The data was analysed using the statistical programme R 4.2.2. Because the design of the study included both within subject variables and between subject variables, the hypotheses

were tested using a repeated measures ANOVA. This test was used to investigate the main effect of the defendant information groups and of crime type on sentence length and on perceived seriousness. Additionally, this test was used to investigate the two-way interaction between the defendant information groups and crime type on sentence length and on perceived seriousness. When the repeated measures ANOVA showed significant results, a simple effects test was performed to investigate why the results were significant.

To investigate whether the four control variables influenced the data, a sensitivity analysis was performed. For each control variable, a subset was created based on the responses to the relevant control variable. The following subsets were created based on the four control variables: a subset excluding all the responses of participants who were not familiar with criminal law, a subset excluding all responses of participants who are diagnosed with ASD, a subset excluding all responses of participants who believe they might have ASD, and a subset excluding all responses of participants who were not familiar with ASD before participating in the study. For all control variables, the smallest group was excluded to create the subset, because these groups were too small to make performing the ANOVA meaningful. A repeated measures ANOVA was performed for all the subsets and it was examined whether there were any differences between the analysis of the subset and the analysis of the complete data set. Additionally, Welch's two sample t-test was performed for each control variable to investigate whether there was a meaningful difference in sentence length between the two groups created by the control variables (e.g., the participants who were and were not familiar with criminal law). To explore whether the AQ influenced the outcomes of the data, an additional repeated measures ANOVA model was created that included the variable of the AQ scores as a covariate (scored according to the official scoring system as described in Appendix D).

Content Analysis

The open questions asking the participants to reason the sentence lengths they chose for the cases were analysed using a content analysis. Since the content analysis was explorative in nature, an inductive approach was used (Elo & Kyngäs, 2008). Thus, codes were created using the data. This analysis was done in the software Atlas.ti 9. The 146 participants were asked to reason the sentence length for all three cases resulting in 438 individual responses. The process from raw data to the final coding scheme consisted of a preparation step and an organization step (Elo & Kyngäs, 2008). During he the preparation step, the coding process started by selecting all meaningful statements in the responses and assigning them a code representing the meaning of the statement. After doing this for all the

data a few prominent themes appeared and the first coding scheme was based on these themes. During the organization step, some of the initial codes were merged and combined into broader codes and the initial codes became variations of the final codes. The codes were the main categories that emerged from the data and the variation were the subcategories into which the codes were divided. Initially, the coding process was done individually for the different cases to avoid the assumption that rationales would overlap between cases. However, the final coding scheme was applicable to all the three cases because the broader occurring themes overlapped between cases. This allowed for direct comparisons between the cases.

Every response could only be assigned each code and each variation one time. A response could be assigned multiple different variations of the same code, but the code would still be used only one time for the response. For example, when a response addressed both variations of the code *crime relevant factors*: *nature of the crime* and the *victim impact*, these variations were both used once and the code to which they belong, *crime relevant factors*, was also used once for the response. The decision to use each code and each variation only once per response has been made to compare groups and cases without artificially inflating how common an explanation was across participants.

For each crime type, the frequency of the different codes and variations was counted. This was done individually for the "ASD + Knowledge" group, the ASD group, and the control group. This way, the codes could be compared between the crime types and the defendant information groups. Additionally, the means and standard deviations of the sentence length for each code and variation were calculated. This was done individually for each crime type and each defendant information group. For example, the mean sentence length of all the responses that included a statement coded with c*rime relevant factors* in the ASD group for the assault case was 8.8 with a standard deviation of 14.9. By comparing the means of the codes, it could be investigated how the different codes were associated with sentence length and whether this differed across crime types and defendant information groups.

Results

Descriptive Statistics

The means and standard deviations of the dependent variables are shown in Table 1 and Table 2. The sentence length variable was skewed to the right showing that the participants were inclined to choose short sentence lengths (see Appendix E, Figure E1).

Lastly, there was a small positive correlation between sentence length and perceived seriousness, $r(417) = .20$, $p < .001$.

Table 1

Means and Standard Deviations of Sentence Length

	ASD + Know.		ASD		Control		Total	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Assault	5.4	7.4	7.5	12.9	14.0	13.7	9.0	12.2
Stalking	11.6	14.8	7.8	11.5	15.4	15.4	11.6	14.3
Burglary	9.0	9.4	11.7	13.4	11.3	8.3	10.7	10.6
Total	8.7	11.2	9.0	12.7	13.5	12.8	10.4	12.4

Note. Sentence length was measured in months with a range from 1 month to 72 months.

Table 2

Means and Standard Deviations of Perceived Seriousness

	ASD + Know.		ASD		Control		Total	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Assault	2.4	0.8	2.2	0.9	2.8	1.0	2.5	0.9
Stalking	2.9	0.9	2.8	0.9	3.0	0.9	2.9	0.9
Burglary	2.5	0.8	2.7	0.6	2.4	0.8	2.5	0.8
Total	2.6	0.8	2.6	0.8	2.7	0.9	2.6	0.9

Note. Perceived seriousness was measured on a scale from 1 to 5.

Sentence Length

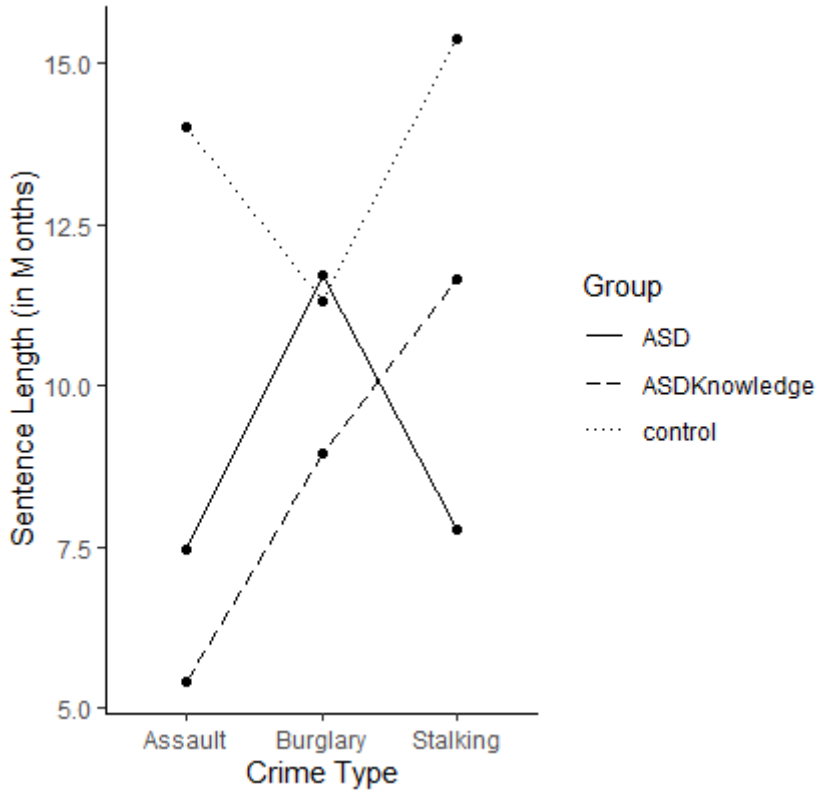
Before analysing the sentence length, some of the individual responses for sentence length were changed because some of the sentence lengths participants responded were inconsistent with the explanation in the open answer questions. For this reason, 47 responses were changed to 0 months, three responses were changed to 1 month and one response was changed to 12 months (see Appendix F). A number of participants had a clear and unambiguous wish to respond with 0 months. However, the scale for sentence length could not capture the desired response since it did not include 0 months. Therefore, the decision has been made to change several responses to 0 months in order to decrease the amount of missing data and to acknowledge the participants who had a clear opinion about choosing for no prison sentence. These changes were only made when it was clear that the sentence length the participant responded was inconsistent with the answer to the open ended question (e.g., “he shouldn’t be sentenced to a jail term at all”). Still, it is important to keep in mind that the remainder of the participants that responded 1 month ($n = 42$) could have answered 0 months

if this option was available on the scale. Yet, expectations are that including 0 months on the scale would have had little influence on the results as the difference between 0 and 1 is small on the continuous scale.

A repeated measures ANOVA showed that there was a significant main effect of defendant information group on sentence length, $F(2, 130) = 4.08$, $p = .019$, but not of crime type on sentence length, $F(1.89, 245.12) = 2.44$, $p = .093$. Sentence length was significantly higher in the control group than in the ASD group ($p = .005$) or the "ASD + Knowledge" group ($p = .003$, see Table 1). Moreover, there was a significant interaction between defendant information group and crime type on sentence length, $F(3.77, 245.12) = 3.20$, $p = .016$. The two-way interaction model is shown in Figure 1.

Figure 1

Two-Way Interaction Between Group and Crime Type on Sentence Length



Considering the Bonferroni adjusted p-value, the simple main effect of defendant information group on sentence length was significant for the assault case, $F(2, 138) = 7.01$, $p = .003$, but not for the stalking case, $F(2, 136) = 3.47$, $p = .102$, or the burglary case, $F(2, 141) = 0.93$, $p = 1$). Pairwise comparisons between the defendant information groups showed that for the assault case the sentence length was significantly different in the ASD versus control

group comparison (p = .021) and in the "ASD + Knowledge" versus control group comparison (p = .001). Participants in the ASD group and in the "ASD + Knowledge" group assigned lower sentence lengths than participants in the control group (see Table 1). As mentioned before, the simple main effect of defendant information group on sentence length was not significant for the stalking case. However, pairwise comparisons did show that for the stalking case the sentence length did differ significantly between the ASD group and the control group (p = .028). Sentence length was higher in the control group than in the ASD group (see Table 1).

The simple main effect of crime type on sentence length was significant for the "ASD + Knowledge" group, $F(2, 84) = 4.50$, p = .042, but not for the ASD group, $F(1.77, 77.80) = 2.37$, p = .318, or the control group $F(2, 88) = 2.22$, p = .345. Pairwise comparisons between the crime types showed that in the "ASD + Knowledge" group there was a significant difference for the assault versus stalking comparison (p = .016). Participants assigned lower sentence lengths to the assault case than to the stalking case (see Table 1).

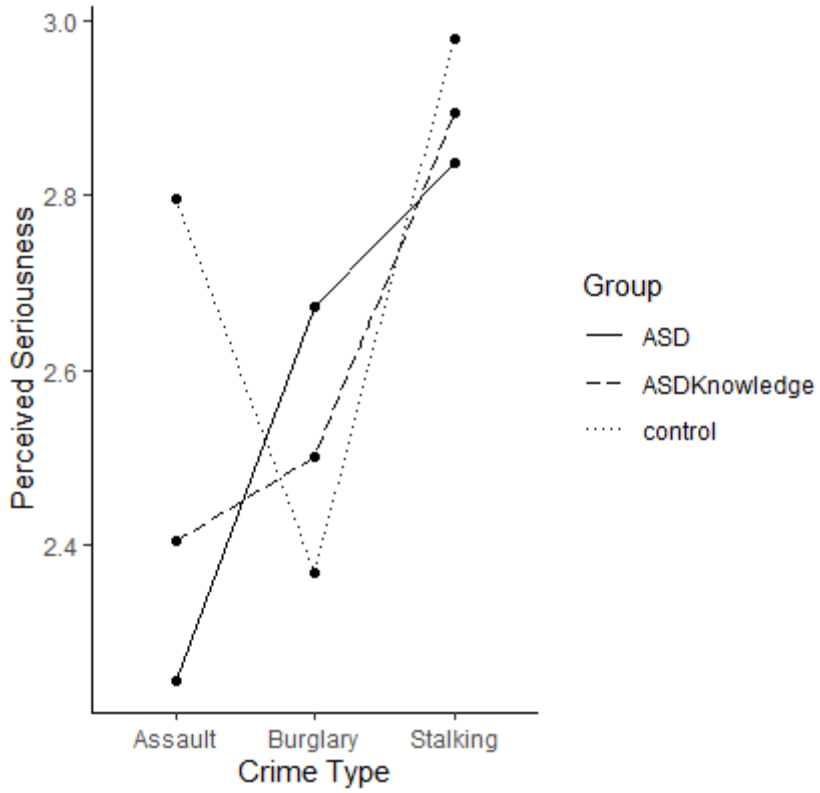
In sum, for the assault case, sentence length was significantly lower in the ASD group and the "ASD + Knowledge" group than in the control group, but there was no meaningful difference in sentence length between the ASD group and the "ASD + Knowledge" group. Additionally, for the stalking case, in the ASD group the sentence length was lower than in the control group. However, there was no substantial difference in sentence length between the "ASD + Knowledge" group and the ASD group or between the "ASD + Knowledge" group and the control group. However, in the "ASD + Knowledge" group, the sentence length was significantly lower for the assault case than for the stalking case. For the burglary case, there were no meaningful difference between the defendant information groups.

Perceived Seriousness

A repeated measures ANOVA showed that there was a significant main effect of crime type on perceived seriousness, $F(2, 276) = 11.85$, $p < .001$, but not of defendant information group on perceived seriousness, $F(2, 138) = 0.69$, p = .505. The perceived seriousness was significantly higher for the stalking case than for the assault case ($p < .001$) or the burglary case ($p < .001$, see Table 2). Additionally, there was a statistically significant interaction between defendant information group and crime type on perceived seriousness, $F(4, 276) = 3.42$, p = .009. The interaction model is shown in Figure 2.

Figure 2

Two-Way Interaction Between Group and Crime Type on Perceived Seriousness



Considering the Bonferroni adjusted p-value, the simple main effect of defendant information group on perceived seriousness was significant for the assault case, $F(2, 142) = 4.80$, $p = .030$, but not for the stalking case, $F(2, 142) = 0.34$, $p = 1$, or the burglary case, $F(2, 139) = 2.08$, $p = .387$). Pairwise comparisons between the defendant information groups showed that for the assault case the perceived seriousness was significantly different in the ASD versus control group comparison ($p = .009$). Participants in the ASD group perceived the assault case to be less serious than participants in the control group (see Table 2).

The simple main effect of crime type on perceived seriousness was significant for the ASD group, $F(2, 96) = 8.42$, $p = .001$, and the control group, $F(2, 94) = 6.61$, $p = .006$, but not for the "ASD + Knowledge" group, $F(2, 86) = 3.79$, $p = .081$. Pairwise comparisons between the crime types showed that in the ASD group there was a significant difference for the assault versus burglary comparison ($p = .034$) and the assault versus stalking comparison ($p < .001$). In the ASD group, participants perceived the assault case to be less serious than the stalking case or the burglary case (see Table 2). Moreover, pairwise comparisons between the crime types showed that in the control group there was a significant difference for the assault versus burglary comparison ($p = .040$) and for the burglary versus stalking comparison ($p = .001$). In the control group, participants perceived the burglary case to be less serious than the assault case or the stalking case (see Table 2).

In sum, the assault case was perceived to be less serious in the ASD group than in the control group, whereas for the other crime types there were no meaningful difference in perceived seriousness between the defendant information groups. Moreover, in the ASD group the assault case was perceived to be less serious than the burglary case or the stalking case, whereas in the control group the burglary case was perceived to be less serious than the assault case or the stalking case. Across all defendant information groups, the stalking case was perceived to be the most serious case.

Control Variables

The following section contains a short summary of the results of the sensitivity analysis examining the control variables. A more extensive overview of the analysis, results and statistics can be found in Appendix G. For the sensitivity analysis, four subsets were created based on the responses to the four control variables. Table 3 shows the significance of the main effects and interaction effects in the complete data set and the subsets. When interpreting the differences between the complete data set and the subsets, it is important to keep in mind that the differences in significance can also be a result of the change in sample size. Nevertheless, all the sample sizes of the subsets are above the threshold of the power analysis (n = 108). The sample sizes of each subset are shown in Table 3.

Table 3

Significance of the Two-Way ANOVA of Group and Crime Type on Sentence Length for the Complete Data Set and the Subsets for the Control Variables

Predictor	Complete N = 146	Subset 1 n = 113	Subset 2 n = 144	Subset 3 n = 127	Subset 4 n = 111
Group	s	ns	s	ns	ns
Crime Type	ns	ns	ns	ns	ns
Group * Crime Type	s	ns	s	s	s

Note. Subset 1: criminal law familiarity. Subset 2: ASD diagnosis. Subset 3: ASD believe. Subset 4: ASD familiarity.

s = $p < .05$. ns = $p > .05$

The first subset contained the participants who were not familiar with criminal law. As shown in Table 3, excluding participants who were familiar with criminal law removed all statistically significant findings. However, for all three cases there was no meaningful difference in sentence length between participants that were and participants that were not familiar with criminal law.

The second subset was made up of the participants who were not diagnosed with ASD. Since only two participants in the sample were diagnosed with ASD, the second control variable did not affect the data (see Table 3).

The third subset consisted of the participants who did not believe they might have ASD. As shown in Table 3, excluding participants who believe they might have ASD removed the significant main effect of defendant information group on sentence length. Nevertheless, for all cases there was no meaningful difference in sentence length between participants that did and participants that did not believe they might have ASD.

The fourth subset contained the participants who were already familiar with ASD before participating in the study. Similar to the results of subset 3, excluding the participants who were not familiar with ASD removed the significant main effect of defendant information group on sentence length (see Table 3). The participants who were familiar with ASD gave significantly lower sentences for the assault case than participants who were not familiar with ASD. For the stalking case and the burglary case there was no meaningful difference in sentence length between the participants who were and the participants who were not familiar with ASD.

Exploratory Analysis

The Autism-Quotient

Adding AQ score as a covariate in the repeated measures ANOVA did not affect the judgement of sentence length in the different defendant information groups. The results stayed the same. When adding the AQ score as a covariate, there was a significant main effect of defendant information group on sentence length, $F(2, 119.18) = 4.94$, $p = .009$, but not of crime type, $F(2, 232.56) = 1.61$, $p = .201$, or AQ score, $F(1, 121.36) = 1.97$, $p = .163$. Additionally, there was a significant interaction between defendant information group and crime type on sentence length, $F(4, 232.60) = 2.71$, $p = .031$.

Content Analysis

The final coding scheme contained three different codes: *crime relevant factors*, *offender intentions* and *purpose of the punishment*. Each of these codes were divided into different variation. Table 4 to 6 show the frequency of the codes and the variations per defendant information group for the three different cases. Comparing these tables shows, for example, that participants mentioned the purpose of the punishment more often in the stalking case ($n = 76$) than in the assault case ($n = 39$) or the burglary case ($n = 32$). Additionally, in the assault case participants showed criticism towards the victim's behaviour ($n = 21$) while they did not in the stalking case or the burglary case. In the stalking case ($n = 34$) and the

burglary case (n = 21) participants rather considered the impact the crime had on the victim. Each of the codes are explained in further detail after Table 6.

Table H1 to H3 in appendix H show the means and standard deviations for each of the codes per defendant information group for each case. These means explain how the different codes and variations are associated with sentence length. These means, for example, demonstrate that mentioning malicious intent was associated with higher sentence lengths, while trying to understand the offender was associated with lower sentence lengths for all three cases. For the assault case, the variation *malicious intent* was used more often in the control group (n = 10) than in the ASD group (n = 0) or the "ASD + Knowledge" group (n = 0). Therefore, the quantitative results showing that the mean sentence length was significantly higher in the control group than in the ASD group and the "ASD + Knowledge" group can partially be explained by the difference in malicious intent.

Table 4

Coding Scheme and Frequency for the Assault Case

Code	Variation	ASD + Know.	ASD	Control	Total
Crime Relevant Factors	Nature of the crime	20	21	35	76
	Victim impact	3	4	3	10
	Victim behaviour	6	9	6	21
	Total	25	30	41	96
Offender Intentions	Understanding intent	14	28	8	50
	Malicious intent	3	0	10	13
	Total	17	28	18	63
Purpose of the Punishment	Alternative punishment	14	15	2	31
	Learning opportunity	2	0	6	8
	Total	16	15	8	39

Table 5

Coding Scheme and Frequency for the Stalking Case

Code	Variation	ASD + Know.	ASD	Control	Total
Crime Relevant Factors	Nature of the crime	9	22	21	52
	Victim impact	10	11	13	34
	Total	16	26	30	72
Offender Intentions	Understanding intent	11	11	0	22
	Malicious intent	3	2	5	10
	Total	14	12	5	31
Purpose of the Punishment	Alternative punishment	18	15	13	46
	Learning opportunity	8	9	14	31
	Total	26	24	26	76

Table 6

Coding Scheme and Frequency for the Burglary Case

Code	Variation	ASD + Know.	ASD	Control	Total
Crime Relevant Factors	Nature of the crime	26	33	32	91
	Victim impact	8	4	9	21
	Total	28	33	35	91
Offender Intentions	Understanding intent	7	9	2	18
	Malicious intent	11	9	4	24
	Total	18	18	6	42
Purpose of the Punishment	Alternative punishment	11	5	6	22
	Learning opportunity	0	5	5	10
	Total	11	10	11	32

Crime Relevant Factors. The code that was used most often was *crime relevant factors*. This code was used for statements focussing on the elements specific for the crime that was described. Participants mentioned the crime relevant factors more often for the assault case and the burglary case than for the stalking case. Moreover, the code *crime relevant factors* was associated with higher sentence lengths (see Table H1 to H3). The code *crime relevant factors* is divided into the variations *nature of the crime*, *victim impact* and *victim behaviour*.

Nature of the Crime. *Nature of the crime* was used for statements in which participants mentioned the severity of the crime by either directly referring to severity or by repeating the events that took place (e.g., "he was running away from the police and disobeying orders, and committed assault"). *Nature of the crime* was associated with higher sentence lengths (see Table H1 to H3). For all cases, *nature of the crime* was the most prevalent variation of the code *crime relevant factors* with the highest prevalence for the burglary case and the lowest prevalence for the stalking case (see Table 4 to 6). The distribution of *nature of the crime* across defendant information groups differed per case. For the assault case, participants in the control group (n = 35) clearly mentioned the *nature of the crime* more often than participants in the ASD group (n = 21) or the "ASD + Knowledge" group (n = 20). However, there was not such a difference between defendant information groups for the burglary case (see Table 6). For the stalking case, there was no difference in the prevalence of *nature of the crime* between the ASD group (n = 22) and the control group (n = 21), but the "ASD + Knowledge" group included considerably less *nature of the crime* statements (n = 9). However, those who did include *nature of the crime* statements gave

exceptionally high sentences (see Table H2). The majority of the participants in the "ASD + Knowledge" group who included *nature of crime* statements to rationalise the sentencing decision for the stalking case mentioned that they thought the case was severe (e.g., "because this one seems more critical for me (than the previous situation) because of the stalking"). In contrast, participants in the ASD group often also mentioned that they thought the stalking case was not so severe due to the absence of physical harm (e.g., "Because stalking without actually harming is not a crime comparable with molesting or robbery"). Generally, for all three cases participants had divided opinions about the severity of the criminal act. Some participants thought that the cases were quite severe while others thought that the cases were not so severe. For the stalking case and the burglary case the absence of physical harm was often mentioned as a mitigating factor.

Victim Impact. *Victim impact* was used for statements that mentioned either the physical or psychological harm done to the victim. For the assault case the physical harm was mentioned more often while for the stalking case and the burglary case the psychological harm was more evident. *Victim impact* was associated with higher sentence lengths (see Table H1 to H3), especially for the stalking case in the "ASD + Knowledge" group. For both the assault case and the stalking case, there was no difference between the defendant information groups in the amount of times *victim impact* was mentioned. However, for the stalking case *victim impact* was more prevalent than for the assault case (see Table 4 and 6). For the burglary case, *victim impact* was also more prevalent than for the assault case but did differ across defendant information groups. Namely, v*ictim impact* was mentioned less often in the ASD group (n = 4) compared to the "ASD + Knowledge" group (n = 8) or the control group (n = 9). The variation *victim impact* was often used in combination with *nature of crime* (e.g., "because poor F now has trauma, relatable, but also the robbery wasn't that bad"). The example first addressed the impact the burglary had on the victim and continued to explain the severity of the burglary.

Victim Behaviour. The variation *victim behaviour* was used for statements showing participants were critical of the victim's behaviour and/or argued that the crime could have been prevented if the victim behaved differently (e.g., "the officer did not handle the situation in a correct way. The officer communicated in a not helpful manner with the defendant"). In contrast to *nature of the crime* and *victim impact, victim behaviour* was associated with lower sentence lengths (see Table H1). The variation *victim behaviour* was only relevant for the assault case. For the stalking case and the burglary case participants did not mention the victim's behaviour. For the assault case, *victim behaviour* was mentioned slightly more often

in the ASD group (n = 9) than in the "ASD + Knowledge" group (n = 6) or the control group (n = 6). For this variation, the nature of the arguments was similar across the defendant information groups.

Offender Intentions. The code *offender intentions* was used for statements showing that a participant considered the aim of the offender. Such statements included, for example, speculations about why the offender committed the crime (e.g., "maybe he was in a bad mood that day") or the assumption that the offender wilfully engaged in the criminal behaviour (e.g., "Thomas acted intentionally and not out of panic"). A distinction was made between statements placing the blame externally to the defendant and statements making direct internal attributions. This resulted in the variations *understanding intent* (i.e., external attributions) and *malicious intent* (i.e., internal attributions).

Understanding Intent. The variation *understanding intent* was used for statements showing speculations about why the offender could have committed the crime. This included statements mentioning the ASD diagnosis of the offender as a rationale for the sentence length (e.g., "The defendant seemed like he didn't understand that the accuser feels threatened by his actions due to his autism"). Especially for the assault case and the stalking case, participants often mentioned the ASD diagnosis when they were in the ASD group or the "ASD + Knowledge" group. For the stalking case, there were no *understanding intent* statements in the control group. Nonetheless, for the assault case the control group did include *understanding intent* statements (n = 8), some even noting an ASD diagnosis (e.g., "But there are many reasons why the prisoner acted as he did. Eg: autism, learning difficulties or a non dutch speaker").

For all three cases, *understanding intent* was more prevalent in the ASD group and the "ASD + Knowledge" group compared to the control group (see Table 4 to 6). For the stalking case and the burglary case the prevalence of *understanding intent* was similar across the ASD group and the "ASD + Knowledge" group. Nonetheless, for the assault case the ASD group (n = 28) included considerably more statement for *understanding intent* than the "ASD + Knowledge" group (n = 14). However, for the assault case there were no meaningful difference in the nature of the *understanding intent* statements between the ASD group and the "ASD + Knowledge" group. Most of the statements mentioned that the offender probably acted as he did due to autism. Additionally, for the assault case *understanding intent* occurred more often than for the stalking case or the burglary case. The variation *understanding intent* was associated with lower sentence lengths (see Table H1 to H3).

For both the assault case and the stalking case, *understanding intent* was repeatedly used in combination with variations of *crime relevant factors* in the ASD group and the "ASD + Knowledge" group (e.g., "The guy is autistic. He can not communicate well, he panicked and is fleeying from the police. However, violence is unacceptable"). When participants mentioned *crime relevant factors* in combination with *understanding intent*, they offered some mitigation to the sentence length for the intentions, while still prioritising the seriousness of the crime.

Malicious Intent. *Malicious intent* was used for statements showing that participants thought the offender wilfully engaged in the criminal behaviour. For the assault case this included statements explaining that the offender had no reason for the criminal behaviour (e.g., "yet he did physically attack him and that without any big reason for it"). For the stalking case this included statements explaining that the offender did not stop the criminal behaviour despite multiple opportunities and requests to stop (e.g., "continued to stalk her despite continuously being told not to"). For the burglary case this included statements explaining the crime was likely premeditated (e.g., "The person who commited home burglary and stole something did this premeditated. He was fully aware of what he was doing"). In contrast to *understanding intent*, the variation *malicious intent* was associated with higher sentence lengths (see Table H1 to H3).

For the assault case and the stalking case, there were more *malicious intent* statements in the control group compared to the ASD group or the "ASD + Knowledge" group (see Table 4 and 6). Moreover, for the assault case and the stalking case there were more *understanding intent* statements than *malicious intent* statements in the ASD group and the "ASD + Knowledge" group. On the contrary, for the burglary case the prevalence of *malicious intent* was higher in the ASD group (n = 9) and the "ASD + Knowledge" group (n = 11) than in the control group (n = 4). A number of participants in the ASD group and the "ASD + Knowledge" group mentioned that ASD symptoms were not relevant for the burglary case. Therefore, they thought that the offender wilfully engaged in the criminal behaviour (e.g., "A person's autism has no relevance to their choosing to enter a house to commit a burglary"). Thus, as expected, participants did consider the relation between the type of crime and the symptoms of ASD when judging a case with an autistic defedant.

Purpose of the Punishment. The final code, *purpose of the punishment*, was used for statements related to the punishment. This code did not include statements about the offender deserving the punishment based on, for example, the criminal behaviour being harmful or the intentions being malicious. This was already covered with the previous codes. Instead, this

code included statements about the effect of the punishment and the types of punishment. *Purpose of the punishment* is divided into the variations *alternative punishment* and *learning opportunity*.

Alternative Punishment. The variation *alternative punishment* was used when participants mentioned that they would not send the offender to prison and/or give the offender a punishment other than a prison sentence. This variation was also used when participants would give the offender an additional punishment next to the prison sentence (e.g., therapy, restraining order). *Alternative punishment* was associated with the lowest sentence lengths since this variation included all the statements of participants who mentioned that they did not want to give any prison time at all. (see Table H1 to H3).

For both the assault case and the stalking case, participants often mention therapy or treatment as an alternative punishment. However, whereas for the assault case this only occurred in the ASD group and the "ASD + Knowledge" group, for the stalking case participants also suggested therapy or treatment in the control group. Thus, it was more evident that an offender might need psychological help for the stalking case, regardless of a diagnosis. The variation *alternative punishment* was also more prevalent for the stalking case than for the assault case, since more participants in the control group suggested an alternative punishment (see Table 4 and 6). Moreover, for the assault case and the stalking case, *alternative punishment* repeatedly occurred in combination with *understanding intent* in the ASD group and the "ASD + Knowledge" group. Participants often mentioned that they would rather give an alternative punishment because of the offenders' autism (e.g., "The defendant not responding in any way to the officer might say something about his mental state. Seems like therapy would be better suited"). Additionally, for the stalking case the suggested alternative punishments were not only about helping the offender with therapy or treatment, but also about keeping the offender away from the victim since a restraining order was frequently suggested.

Another reason for wanting to give an alternative punishment was the belief that a prison sentence did not fit the criminal case. For the burglury case, less participants suggested an alternative punisment than for the assault case or the stalking case. The participants that did mention an alternative punishment did not suggest therapy or treatment. Instead, they mentioned that they would not give a prison sentence simply because they thought it did not fit the criminal case.

Learning Opportunity. The variation *learning opportunity* was used for statements in which participants mentioned that the sentence length they gave the offender was the time

they thought was needed for the offender to rehabilitate or learn that their behaviour was wrong. This variation was only used when participants indicated that they thought the offender should go to prison for a certain period of time. *Learning opportunity* was associated with higher sentence lengths (see Table H1 to H3). For all cases, participants included more *learning opportunity* statements when they were in the control group (see Table 4 to 6). In the control group, participants were speculating more about how prison time could help by learning and rehabilitating, whereas in the ASD group and the "ASD + Knowledge" group participants frequently expressed that they would not give any prison time at all. Additionally, the stalking case included more *learning opportunity* statements than the assault case or the burglary case across all groups (see Table 4 to 6). For the stalking case, participants were generally more focused on the purpose of the punishment than for the other cases.

Summary. The content analysis showed that the stalking case and the burglary case were perceived to be more harmful for the victim than the assault case. Instead, for the assault case the participants were more critical of the behaviour of the victim. Moreover, for the stalking case participants in the "ASD + Knowledge" gave exceptionally high sentences when they included *victim impact* or *nature of the crime* statements. The nature of the arguments showed that the majority of the participants in the "ASD + Knowledge" group who included *victim impact* or *nature of the crime* statements thought that the stalking case was severe.

For all crime types, participants showed more understanding towards the defendant in the cases with an autistic defendant. Additionally, for the assault case and the stalking case participants included less *malicious intent* statements when the defendant was autistic. In contrast, the burglary case included more *malicious intent* statements when the defendant was autistic. The nature of the arguments showed that the participants acknowledged that burglary case was not related to ASD symptoms. Finally, for the assault case participants were less willing to give a prison sentence when the defendant was autistic. Instead, they often suggested therapy or treatment.

Discussion

This study investigated whether knowledge about ASD is a requirement for the mitigating effect of ASD on sentencing behaviour and whether the type of crime affects the mitigating effect of ASD on sentencing behaviour. The results showed that for the autism relevant cases (i.e., assault and stalking) defendants with ASD received lower sentence lengths than defendants for whom no diagnosis was mentioned. Similarly, the assault case was perceived to be less serious when committed by an autistic defendant. However, contrary to expectations, when judging an autistic defendant, receiving information about ASD did not

affect the sentence length or the perceived seriousness for the autism relevant cases. Remarkably, for the stalking case autistic defendants only received milder sentences when no ASD information was provided. Nonetheless, as expected, for the case that was not relevant for ASD (i.e., burglary), there was no effect of the defendant's diagnosis or the provided information on the judgement of the defendant. Additionally, for the stalking case and the burglary case, the diagnosis of the defendant did not affect the perceived seriousness of the crime.

It was hypothesised that for the autism relevant cases the autistic defendants would be judged more leniently than the defendants for whom no diagnosis was mentioned, but only when the participants received ASD information. This hypothesis was only partly supported. Defendants with ASD did receive milder sentence. However, providing information about ASD did not affect the judgement of autistic defendants. Thus, informing the participants about ASD was not a requirement for the mitigating effect of ASD on sentence length. Likewise, the content analysis showed that participants who did and participants who did not receive ASD information used the same rationales for their sentencing decisions for an autistic defendant. For the autism relevant cases, participants were more understanding of the defendant when he was diagnosed with ASD, occasionally mentioning diminished responsibility. In contrast, they suspected more malicious intent when the defendant did not have a diagnosis. These findings correspond with the existing literature as research showed that the mitigating effect of ASD on sentencing behaviour is mediated by social acceptance and perceived responsibility (Berryessa, 2018; Sturges & Nuñez, 2021). Moreover, Maras et al. (2019) showed that autistic defendants were perceived more honest and more likeable, whereas non-autistic defendants were viewed more negatively. The findings from the content analysis suggested that participants provided leniency to the autistic defendants, at least partly, due to a decrease in responsibility and differences in motives. Additionally, in line with previous research (Berryessa, 2016, 2018), the content analysis showed that for the assault case participants were less willing to give an autistic defendant a prison sentence compared to a non-autistic defendant. Instead, they suggested therapy or treatment. This finding also supports the explanation for the mitigating effect of ASD on sentencing decisions for the autism relevant cases.

In contrast to the autism relevant cases, ASD was not a mitigating factor on sentence length in the case that was not relevant for ASD. Participants did not simply give a preferential treatment to autistic defendants. These findings are in line with the second hypothesis. The content analysis showed that participants acknowledged that the burglary

case could not be linked to ASD symptoms. Thus, participants did not believe that autism contributed to a decrease in responsibility or differences in motives for the burglary. Hence, whereas for the autism relevant cases the participants provided leniency for a decrease in responsibility and differences in motives, this was not true for the burglary case.

For the assault case participants assigned lower sentences to the autistic defendant both when they did or did not receive information about ASD. However, for the stalking case participants only assigned significantly lower sentences to the autistic defendant when they did not receive information about ASD. Thus, for the stalking case the sentence length for the autistic defendant did not mitigate in the same way as it did for the assault case when ASD information was provided. The ASD information potentially inhibited the mitigation in sentencing behaviour when judging defendants with ASD for the stalking case. Research showed that media content linking criminal behaviour to individuals with ASD can contribute to misconceptions, stigmatisation and negative attitudes (Brewer et al., 2017; Del Pozzo et al., 2018). Perhaps the nature of the ASD information also linked ASD to criminality in a way that increased stigmatisation and misconceptions about ASD. For the stalking case, participants often mentioned the impact the case had on the victim. Thus, the crime was perceived to be harmful. Therefore, by explaining how ASD symptoms can be linked to stalking, the information about ASD might have increased the perceived dangerousness of the autistic defendant. However, this clarification is speculative since there is little research to support this idea. Nonetheless, for training employees in the criminal justice system it is crucial to understand how different types of ASD information affect stigmatisation, misconceptions and perceived dangerousness of ASD. Moreover, the content analysis showed that particularly the participants who mentioned the nature of the crime and the impact the crime had on the victim gave exceptionally high sentences for the stalking case when they received ASD information. The participants who received ASD information mainly mentioned that they thought the case was severe, whereas those who did not receive information about ASD often also mentioned that the case was not so severe. However, further research is needed to understand the relation between the ASD information and the perceived severity of stalking.

Even though for the stalking case ASD did mitigate sentence length, it did not mitigate perceived seriousness. All participants perceived the stalking case to be high in seriousness regardless of the defendant's diagnosis or the information provided before judging the cases. In contrast, for the assault case there was a clear difference in perceived seriousness between the cases with an autistic defendant and the case with a defendant for whom no diagnosis was

mentioned. Thus, for the stalking case participants provided leniency for ASD while still acknowledging the seriousness of the crime while for the assault case the crime itself was perceived to be less serious when committed by an autistic defendant. Stylianou (2003) explained that the perceived seriousness of a crime is a function of the perceived harmfulness and the perceived wrongfulness. For both the assault case and the stalking case, the diagnosis of the defendant decreased the wrongfulness of the crime. Participants often mentioned a decrease in responsibility and a difference in motive when the defendant was autistic. However, when a crime is perceived as more harmful than wrongful, people tend to judge the seriousness of a crime by perceived harmfulness (Stylianou, 2003). As mentioned before, the stalking case was perceived to be harmful since participants often mentioned the impact the crime had on the victim. In contrast, based on the content analysis participants appeared to view the assault case as less harmful. Therefore, the participants probably judged the seriousness of the stalking case by considering the perceived harmfulness and the seriousness of the assault case by considering the perceived wrongfulness (Stylianou, 2003). The distinction between perceived harmfulness and perceived wrongfulness helps to explain the observed differences in perceived seriousness between the two cases.

Limitations and Implications for Future Research

This study contained several limitations that are important to consider. First, the results showed that the majority of the sample was already familiar with ASD before participating in the study. Most of them became familiar with ASD by having a close relation with someone with ASD, learning about ASD in school or working with ASD (see Appendix G). Therefore, it is less likely that participants had misconceptions about ASD and they probably already knew how ASD symptoms could have played a role in the cases. For this reason, it is unclear whether the ASD information could have influenced sentencing of autistic defendants. Additionally, the high ASD familiarity in the sample might explain the lack of meaningful differences in the judgement of autistic defendants between participants that did and participants that did not receive information about ASD. However, the current study only controlled for self-rated knowledge. It is not known yet how actual knowledge about ASD affects sentencing decisions for autistic defendants. Therefore, future research should also focus on actual knowledge by including factual questions about ASD. This way, it can be investigated how actual knowledge about ASD affects sentencing behaviour compared to self-rated knowledge.

Second, when choosing a sentence, the participants did not have the option to choose for no prison time. This decision has been made to force the participants to choose a sentence

length. However, several participants indicated that they would not give any prison time for the crime described in the case vignette. Therefore, the options for the sentence length were not exhaustive. Yet, when including closed-ended questions in a questionnaire, it is important that the answer options are exhaustive (Babbie, 2016). Additionally, the lack of exhaustiveness resulted in number of missing responses. To reduce the number of missing responses and to acknowledge the participants who had a clear opinion about choosing for no prison sentence, the sentence lengths of some participants were changed to zero based on the open answers. However, if the answer options included zero months, more participants would possibly have chosen this answer. Thus, making the data less reliable. This study did include a measurement of perceived seriousness. However, there was little association between perceived seriousness and sentence length showing that sentencing behaviour captured more than perceived seriousness. Since participants refrained from giving a prison sentence and often suggested alternative punishments for the criminal cases, especially when the defendant was autistic, future research should focus on the effect of judging an autistic defendant on different kinds of punishment (e.g., a money fine or the likelihood of advising mandatory therapy).

Third, performing a content analysis calls directly on the subjective judgement of the coder. Therefore, it is hard to prevent researcher bias. There are a few methods to increase the reliability of content analysis such as the test-retest method and interrater reliability (Babbie, 2016). However, for this study, due to a lack of time and resources, none of the methods for replicability were implemented. Nonetheless, transparency and trustworthiness were established by explaining the decisions about the coding process, showing the coders interpretations of the codes and the data, and displaying authentic citations (Elo & Kyngäs, 2008; Moravcsik, 2019).

Conclusion

No previous study has demonstrated whether the nature of the crime interacted in the judgement of defendants with ASD. This project demonstrated that defendants with ASD only received milder sentences when the criminal case could be linked to symptoms of ASD. When the criminal case was not relevant for ASD, the autistic defendants were not assigned milder sentences than defendants for whom no ASD diagnosis was indicated. Content analysis showed that participants did consider whether a criminal case was relevant for ASD when sentencing a defendant with ASD. Another important finding of this study is that specific information about ASD inhibited the mitigating effect of ASD on sentencing behaviour for the stalking case. For training employees in the criminal justice system it is important to know

how different types of information affect sentencing behaviour. Therefore, future research should explore the relation between different types of information about ASD and sentencing decisions for autistic defendants.

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Appendix A: The ASD Flyer

What is Autism Spectrum Disorder and how can it relate to criminality?

What is Autism?

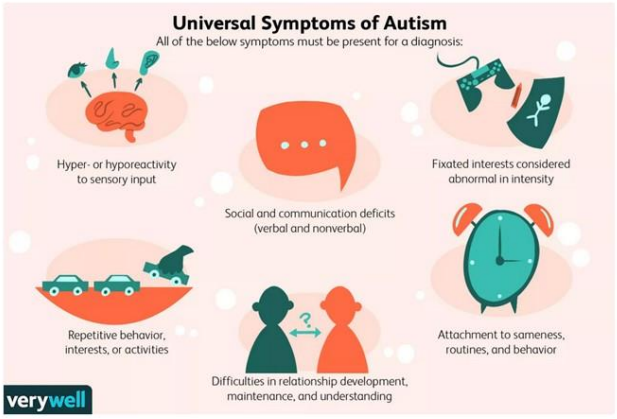
Autism Spectrum Disorder (ASD) is a developmental disability that is caused by differences in the brain. Autism has a variety of symptoms and affects people in different ways. Symptoms of autism are:

- **Executive functioning deficits.** Many people with autism have difficulties with executive functioning. This causes problems with planning and organization, inhibition control and emotion regulation
- **Under- and oversensitivity.** Many people with autism are under- or oversensitive to stimuli such as light, touch and sound. When the stimuli get too much, this can lead to a meltdown or a shutdown.
- **Social communication and interaction challenges.** A person with autism can have difficulties with understanding (non)verbal communication and understanding other's feelings and intentions.
- **Fixated interests and hobbies.** People with autism often have intense and highly focused interests and hobbies.
- **Repetitive and restrictive behaviour.** Because the world can be confusing and unpredictable to someone with autism, people with autism often prefer to adhere to a specific routine. Change in this routine can be very disturbing.

https://www.autism.org.uk/advice-and-guidance/what-is-autism

Autism and Criminality

Although people with autism do not commit more crime than the general population, some symptoms of autism can be a risk factor for certain types of crimes. It is therefore important to consider these symptoms to understand why someone with autism committed a certain crime.



Laura Porter / Verywell

Inhibition Control and Emotion Regulation

People with autism may have difficulties with inhibition control. That is, people with autism have difficulties with suppressing impulsive responses. Therefore, someone with autism has more difficulties suppressing impulsive responses that lead to aggressive or violent behaviour.

Moreover, people with autism often have difficulties regulating their emotions. Therefore, when someone with autism experiences negative emotions, this might lead to uncontrolled outbursts of aggression.

Sensory Sensitivity

When someone with autism is hypersensitive, all senses in the brain are always switched on. For this reason, sensory input such as sound, touch and light can easily become too much. When it becomes to much, this can lead to a meltdown or a shutdown.

When someone has a meltdown, he or she loses behavioural control. This loss in control can be verbal, such as screaming or crying or physical, such as kicking and hitting. When someone with autism starts kicking and hitting due to a meltdown, this can be seen as an act of violence or assault.

Social communication and interaction challenges

People with autism often have problems with understanding why other people behave in a certain way, understanding non-verbal communication and recognizing facial expressions. Therefore, someone with autism might not realise that what he or she is doing is inappropriate, makes someone else uncomfortable or hurts someone else. Additionally, a person with autism might not understand the impact of his or her behaviour.

These difficulties with social communication and interaction can have several criminal consequences. For example, an autistic individual may misunderstand consent when he or she has a romantic interest in someone else which can lead to crimes such as stalking or sexual assault.

Fixated Interests

People with autism often have fixated interests and hobbies. Most of the time these interests do not lead to criminal behaviour. However, when a person with autism has an obsessive interest in specific violent content, this may lead to criminal behaviour. For example, an obsessive interest in the destructive capabilities of weapons may lead to vandalism if a person decides to test out these destructive capabilities. Of course, an interest in violent content does not have to lead to offending.

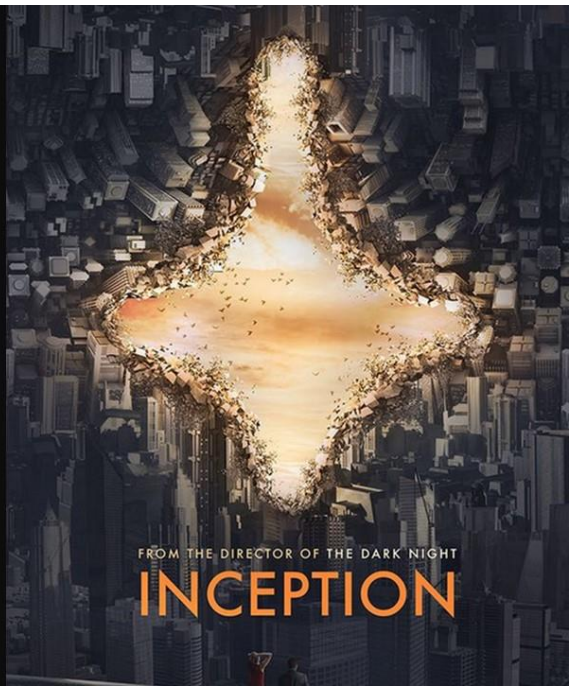
Additionally, because someone with autism can have difficulties with understanding social boundaries, they may cross social boundaries in order to pursue their fixated interest. Therefore, if someone with autism has a fixated interest in another person, this interest may lead to stalking.

These risk factors do not cause people with autism to commit more crime than the general population, they just have different motives for the crimes they commit.

Appendix B: The Movie Flyer

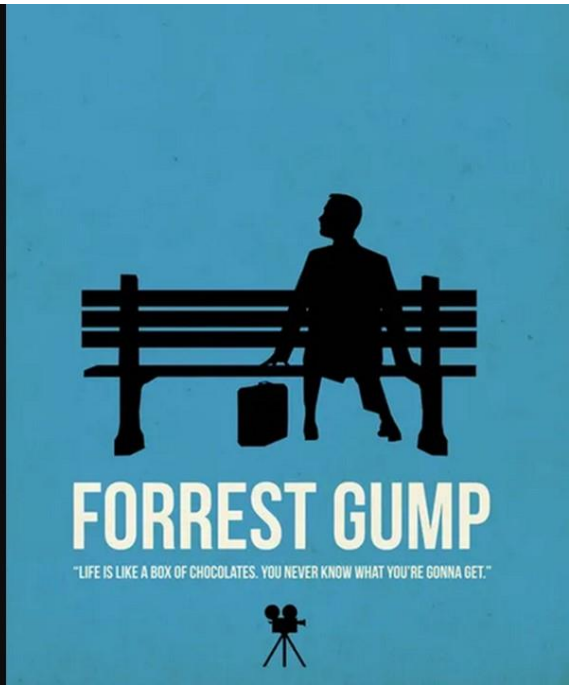
#5 Inception

Inception Inception is a science fiction movie directed by Christopher Nolan with lead role of Leonardo Di Caprio which shows a gang of people who have the ability to hack into someone's brain by their dreams which they ultimately use for stealing the secret from an industrialist. This movie has its own persona of visual effects and skillful use of direction.



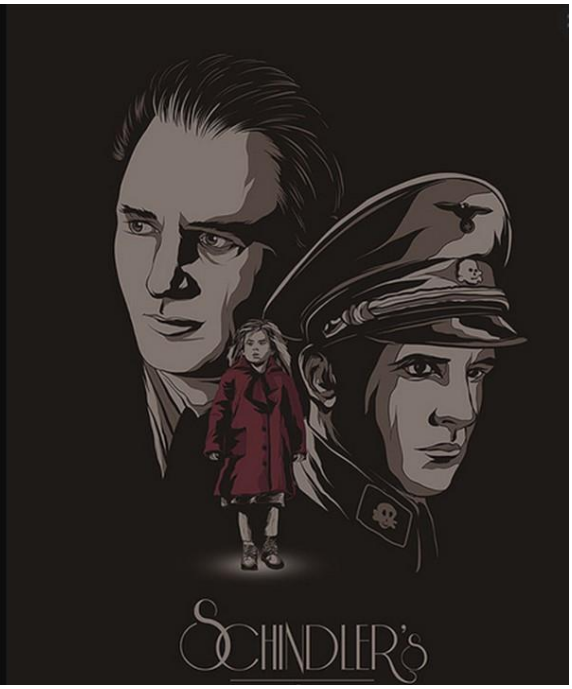
#4 Forrest Gump

Forrest Gump depicts a story of an American Army officer called Forrest Gump. This whole movie covers all the aspects of his life with a roller coaster ride of emotions. The best part of the movie is the central character which is played by Tom Hanks.



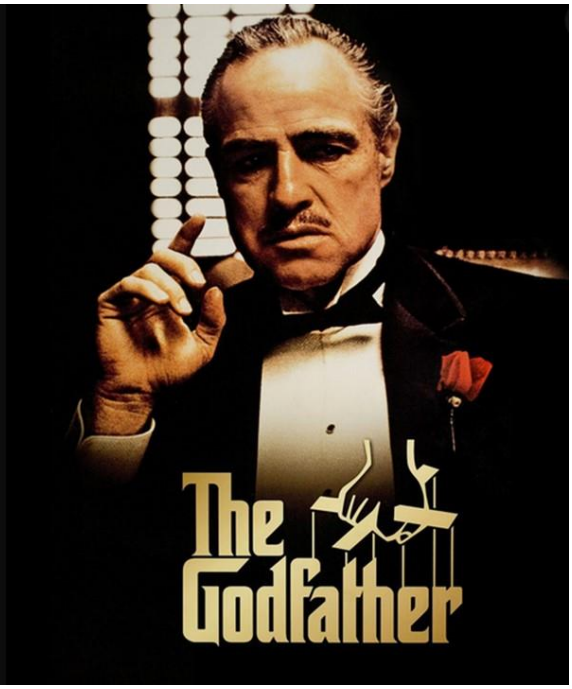
#3 Schindler's List

Schindler's List is a war time movie directed by Steven Spielberg. This movie shows the story of Poland which was occupied by the Germany during World War-2. Mr. Schindler a German Army officer is the central character of the movies who becomes very concerned about the Jewish people living in the Poland. This movie will surely touch your emotional part with its ending.



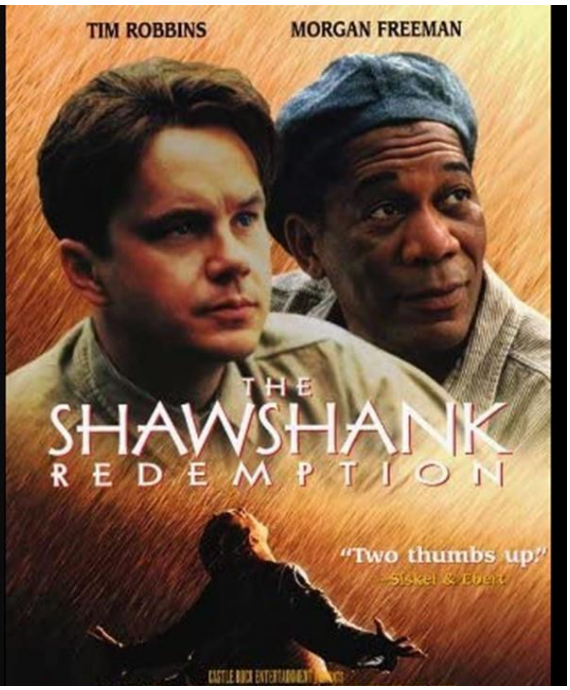
#2 Godfather

Godfather is The Best Movies of All Time. This movie is based upon the story of an American mafia family whose head is Don Vito Corleone who decided to hand over his throne to his youngest son Michael. This movie shows a very efficient narrative of the mafia gangs of America with its equally effective story line up.



#1 Shawshank Redemption

Shawshank Redemption is The Best Movies of All Time. It is a suspense thriller directed by Frank Darabont. This movie is based on the character of Andy Dufresne, a successful banker who got arrested for the murder of his wife and the story revolves around his life in the prison called Shawshank. This movie has a unique ability to mesmerize the audience in its flow.



Appendix C: Case Vignettes

POLICE REPORT

Case No.: 2382309 **Date:** 23/09/2022

Reporting Officer: Jan Visser **Prepared by:** Richard de Jong

Incident: Assaulting a police officer

Details of Defendant:

The defendants name is Dennis. He is a 29 year old autistic male

Details of Event:

In the evening of September 23th 2022, police officer X was patrolling the streets in his car and saw Dennis cycling without a light on his bicycle. Officer X approached Dennis to give him a warning about his lights, but when he approached Dennis, Dennis started to sprint away from the police car. Officer X thought this behaviour was suspicious and started following Dennis. After a following, Dennis arrived at a house, got off his bike and wanted to go inside. Before Dennis could go into the house, police officer X got out of his car and tried to stop Dennis to ask why he was trying to get away from him. Dennis ignored police officer X's questions and continued walking towards the entrance of the house. Police officer X got frustrated because Dennis ignored him and he grabbed Dennis' shoulder in an attempt to stop him from going inside the house. At this point, Dennis started assaulting officer X by hitting and kicking him resulting in minor injuries. Police officer X has bruises on his arm and face and a broken finger. Officer X feels a lot of physical pain due to the assault and is unable to work for a few days.

Actions Taken:

Police officer X filed a complaint against Dennis for the assault. Dennis is now in custody and today he will stand trial for the assault.

POLICE REPORT

Case No.: 4546757 **Date:** 16/07/2022

Reporting Officer: Hendrik Janssen **Prepared by:** Marcel van Dijk

Incident: Stalking

Detail of the Defendant:

The defendants name is Tim. He is a 27 year old autistic male

Detail of Event:

On the 16th of July 2022, S filed a complaint against Tim for stalking. S is a former university professor of Tim who taught Tim's favourite subject. Tim started contacting S via the Facebook Messenger chat. After Tim had sent a few messages, S told him she was not interested in having contact with him. Tim kept sending messages to S multiple times a day via multiple social media platforms. S blocked Tim on the platforms she received messages from him. However, Tim retrieved S's phone number and called her multiple times a day. As a response, S blocked Tim's phone number and she blocked incoming anonymous calls. S thought this would end it, but Tim retrieved S's home and work address and started showing up at her home and her work. S told Tim multiple times that he needed to leave, but Tim did not leave. He showed up daily and started following her. This is when S decided to file a complaint against Tim because she felt threatened and was afraid to leave her house.

Actions Taken:

After S filed a complaint against Tim, Tim was taken into custody. He is now awaiting his trial. Tim's trial will take place today.

POLICE REPORT

Case No.: 1783652 **Date:** 17/04/2022

Reporting Officer: Peter Scholten **Prepared by:** Johan de Groot

Incident: Burglary

Details of Defendant:

The defendants name is Thomas. He is a 26 year old autistic male

Details of Event:

Thomas broke into the home of F in the afternoon of the 17th of April 2022. F was at home at the moment of the break in. Thomas entered via the backdoor that was unlocked. The backdoor led to the kitchen where a laptop lay on a table. Thomas took the laptop worth approximately €600,-. At this moment, F entered the kitchen because he heard something. That is when he saw Thomas, a stranger, standing in the kitchen with the laptop. Thomas fled, taking the laptop he was already holding, when F entered the kitchen. Because F got a good look at Thomas, he was able to give a specific description of Thomas to the police. Consequently, the police were able to catch Thomas a few streets from F's house. F indicated that, since the burglary, he is constantly wary and does not feel safe in his own home.

Actions Taken:

F filed a complaint against Thomas. Thomas is now in custody awaiting his trial. His trial will take place today.

Appendix D: The Autism-Spectrum Quotient (AQ)

1. I prefer to do things with others rather than on my own.
2. I prefer to do things the same way over and over again.
3. If I try to imagine something, I find it very easy to create a picture in my mind.
4. I frequently get so strongly absorbed in one thing that I lose sight of other things.
5. I often notice small sounds when others do not.
6. I usually notice car number plates or similar strings of information.
7. Other people frequently tell me that what I've said is impolite, even though I think it is polite.
8. When I'm reading a story, I can easily imagine what the characters might look like.
9. I am fascinated by dates.
10. In a social group, I can easily keep track of several different people's conversations.
11. I find social situations easy.
12. I tend to notice details that others do not.
13. I would rather go to a library than to a party.
14. I find making up stories easy.
15. I find myself drawn more strongly to people than to things.
16. I tend to have very strong interests, which I get upset about if I can't pursue.
17. I enjoy social chitchat.
18. When I talk, it isn't always easy for others to get a word in edgewise.
19. I am fascinated by numbers.
20. When I'm reading a story, I find it difficult to work out the characters' intentions.
21. I don't particularly enjoy reading fiction.
22. I find it hard to make new friends.
23. I notice patterns in things all the time.
24. I would rather go to the theatre than to a museum.
25. It does not upset me if my daily routine is disturbed.
26. I frequently find that I don't know how to keep a conversation going.
27. I find it easy to 'read between the lines' when someone is talking to me.
28. I usually concentrate more on the whole picture, rather than on the small details.
29. I am not very good at remembering phone numbers.
30. I don't usually notice small changes in a situation or a person's appearance.
31. I know how to tell if someone listening to me is getting bored.
32. I find it easy to do more than one thing at once.
33. When I talk on the phone, I'm not sure when it's my turn to speak.
34. I enjoy doing things spontaneously.
35. I enjoy doing things alone.
36. I find it easy to work out what someone is thinking or feeling just by looking at their face.
37. If there is an interruption, I can switch back to what I was doing very quickly.
38. I am good at social chitchat.
39. People often tell me that I keep going on and on about the same thing.
40. When I was young, I used to enjoy playing games involving pretending with other children.
41. I like to collect information about categories of things (e.g., types of cars, birds, trains, plants).
42. I find it difficult to imagine what it would be like to be someone else.
43. I like to carefully plan any activities I participate in.
44. I enjoy social occasions.
45. I find it difficult to work out people's intentions.

46. New situations make me anxious.
47. I enjoy meeting new people.
48. I am a good diplomat.
49. I am not very good at remembering people's date of birth.
50. I find it very easy to play games with children that involve pretending.

Psychologist Simon Baron-Cohen and his colleagues at Cambridge's Autism Research Centre have created the Autism-Spectrum Quotient, or AQ, as a measure of the extent of autistic traits in adults. In the first major trial using the test, the average score in the control group was 16.4. Eighty percent of those diagnosed with autism or a related disorder scored 32 or higher. The test is not a means for making a diagnosis, however, and many who score above 32 and even meet the diagnostic criteria for mild autism or Asperger's report no difficulty functioning in their everyday lives.

How to score: "Definitely agree" or "Slightly agree" responses to questions 2, 4, 5, 6, 7, 9, 12, 13, 16, 18, 19, 20, 21, 22, 23, 26, 33, 35, 39, 41, 42, 43, 45, 46 score 1 point. "Definitely disagree" or "Slightly disagree" responses to questions 1, 3, 8, 10, 11, 14, 15, 17, 24, 25, 27, 28, 29, 30, 31, 32, 34, 36, 37, 38, 40, 44, 47, 48, 49, 50 score 1 point. MRC-SBC/SJW February 1998. Published: Journal of Autism and Developmental Disorders, 31, 5-17 (2001).

Appendix E: Distribution of the Dependent Variables

Figure E1

Histogram Showing the Distribution of Sentence Length

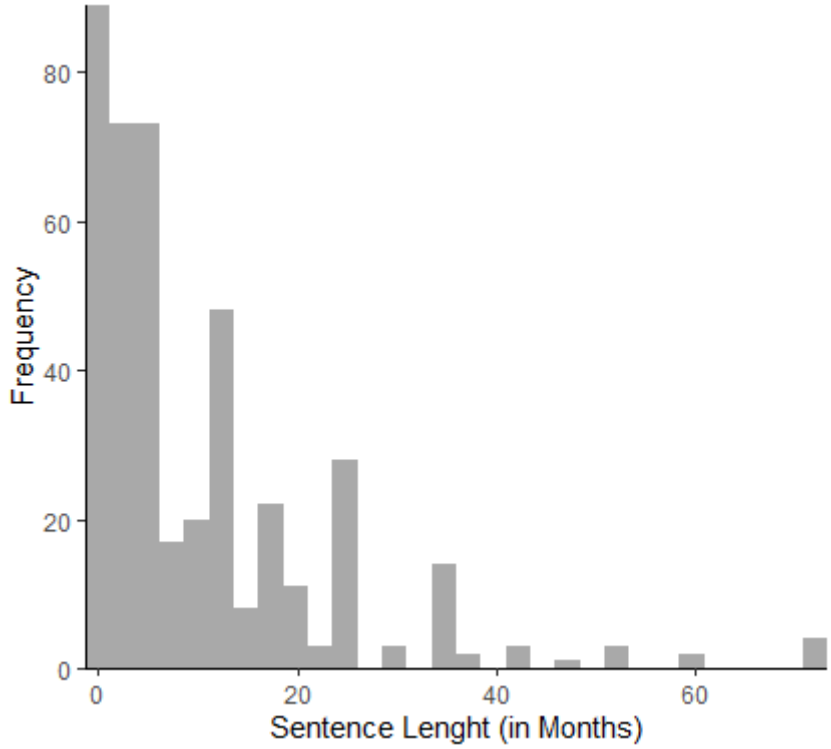
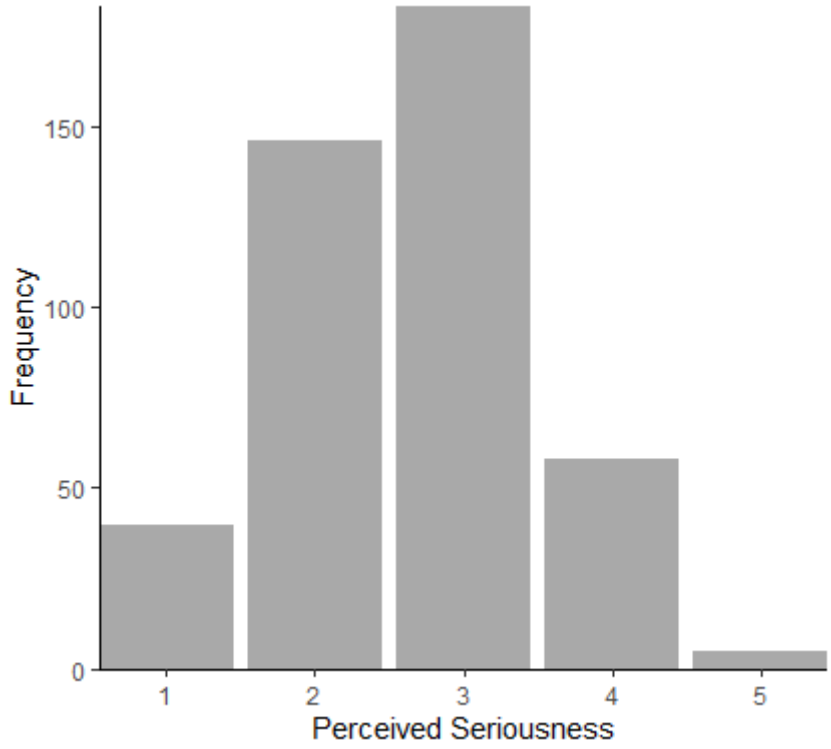


Figure E2

Bar Chart Showing the Distribution of Perceived Seriousness



Appendix F: Changed Sentence Length Values

Assault case, “ASD + Knowledge” group:
- 6×: NA → 0
- 4×: 1 → 0

Assault case, ASD group:
- 6×: NA → 0
- 3×: 1 → 0

Stalking case, “ASD + Knowledge:
- 4×: NA → 0
- 5×: 1 → 0

Stalking case, ASD group:
- 5×: NA → 0
- 1×: 1 → 0
- 1×: NA → 1
- 1×: 4 → 1

Stalking case, control group
- 3×: NA → 0
- 1×: NA → 1
- 1×: 12 → 0

Burglary case, “ASD + Knowledge” group:
- 2×: NA → 0
- 1×: 1 → 0

Burglary case, ASD group
- 2×: NA → 0
- 2×: 1 → 0

Burglary case, control group
- 2×: 1 → 0
- 1×: 24 → 12

Total:
- 28×: NA → 0
- 18×: 1 → 0
- 2×: NA → 1
- 1×: 4 → 1
- 1×: 12 → 0
- 1×: 24 → 12

Appendix G: Results Control Variables

Control Variable 1: Criminal Law Familiarity

To analyse whether the familiarity with criminal law affected the outcome of the data analysis, the participants who were familiar with criminal law were excluded. This resulted in a subset of 113 participants who were not familiar with criminal law. As shown in Table G1, after removing the participants who were familiar with criminal law from the data set, none of the main effects or the interaction effect were significant.

Table G1

ANOVA Results of the Complete Data Set and the Subset for Control Variable 1

	Complete data set (N = 146)				Subset 1 (n = 113)			
Predictor	df_{num}	df_{den}	F	p	df_{num}	df_{den}	F	p
Group	2	130	4.08	.019	2	102	1.70	.188
Crime Type	1.89	245.12	2.44	.093	1.75	178.81	2.30	.110
Group * Crime Type	3.77	245.12	3.17	.016	3.51	178.81	2.22	.077

Note. df_{num} indicates degrees of freedom numerator. df_{den} indicates degrees of freedom denominator.

Two sample t-tests showed that there was no significant difference in sentence length between the participants who were and the participants who were not familiar with criminal law for the assault case, $t(40.87) = 0.41$, $p = .686$, the stalking case, $t(64.79) = 1.24$, $p = .220$, or the burglary case, $t(53.91) = 1.42$, $p = .163$. The means and standard deviations of sentence length, for all cases and grouped by criminal law familiarity, are shown in Table G2.

Table G2

Means and Standard Deviations per Case Grouped by Criminal Law Familiarity

Criminal Law	Yes		No	
Familiarity	*M*	*SD*	*M*	*SD*
Assault	8.1	13.9	9.3	11.7
Stalking	9.2	11.1	12.3	15.0
Burglary	8.5	10.3	11.4	10.6
Total	8.6	11.7	11.0	12.6

Control Variable 2: ASD Diagnosis

Two participants in the sample were diagnosed with ASD. Excluding these two participants left a subset of 144 participants who were not diagnosed with ASD. No

differences were observed when comparing the results of the complete data set to the subset. Table G3 shows the two-way ANOVA results for the subset.

Table G3

ANOVA Results of the Complete Data Set and the Subset for Control Variable 2

	Complete data set (N = 146)				Subset 2 (n = 144)			
Predictor	df_{num}	df_{den}	F	p	df_{num}	df_{den}	F	p
Group	2	130	4.08	.019	2	128	4.02	.020
Crime Type	1.89	245.12	2.44	.093	1.89	241.29	2.15	.121
Group * Crime Type	3.77	245.12	3.17	.016	3.77	241.29	2.98	.022

Note. df_{num} indicates degrees of freedom numerator. df_{den} indicates degrees of freedom denominator.

Control Variable 3: ASD Believe

To analyse the third control variable, believing that you might have ASD, a subset was created by excluding all participants who indicated they have reasons to believe they might have ASD. In total, 19 participants were excluded leaving a subset of 127 participants who do not think they might have ASD. As shown in Table G4, this subset showed a significant two-way interaction between defendant information group and crime type on sentence length. However, in contrast to the complete data set, there was no significant main effect of defendant information group on sentence length.

Additionally, the simple main effects of defendant information group on sentence length remained the same. Thus, a significant main effect was observed for the assault case, $F(2, 120) = 5.71$, $p = .012$, but not for the stalking case, $F(2, 118) = 1.89$, $p = .465$, or the burglary case, $F(2, 122) = 0.66$, $p = 1$. Compared to the complete data set, there were some differences in this subset when investigating the pairwise comparisons between defendant information groups. Although the sentence length was still significantly different for the "ASD + Knowledge" versus control group comparison for the assault case ($p = .004$), it was not anymore for the ASD versus control group comparison for the assault case ($p = .060$) and the ASD versus control group comparison for the stalking case ($p = .178$).

Table G4

ANOVA Results of the Complete Data Set and the Subset for Control Variable 3

	Complete data set	Subset 3

	(N = 146)				(n = 127)			
Predictor	df_{num}	df_{den}	F	p	df_{num}	df_{den}	F	p
Group	2	130	4.08	.019	2	113	2.17	.119
Crime Type	1.89	245.12	2.44	.093	2	226	1.19	.307
Group * Crime Type	3.77	245.12	3.17	.016	4	226	2.89	.023

Note. df_{num} indicates degrees of freedom numerator. df_{den} indicates degrees of freedom denominator.

Two sample t-tests showed that there was no significant difference in sentence length between the participants who did and participants who did not believe they might have ASD for the assault case, $t(24.38) = 1.01$, $p = .324$, the stalking case, $t(18.61) = 0.78$, $p = .443$, or the burglary case, $t(34.85) = 1.84$, $p = .074$. The means and standard deviations of sentence length, for all cases and grouped by ASD believe, are shown in Table G5.

Table G5

Means and Standard Deviations per Case Grouped by ASD Believe

ASD Believe	Yes		No	
	M	*SD*	*M*	*SD*
Assault	6.8	9.5	9.4	12.5
Stalking	14.8	18.3	11.2	13.7
Burglary	7.8	6.2	11.0	11.0
Total	9.8	12.6	10.5	12.4

Control Variable 4: ASD Familiarity

The fourth control variable measured whether participants were already familiar with ASD before participating in the study. The participants in the study became familiar with ASD through different means. Of the participants who were familiar with ASD, 51 participants have a close relation with someone with ASD, 48 participants have learned about ASD in school, 31 participants work with autistic people and 29 participants became familiar with ASD by other means such as reading/hearing about it in the media, knowing someone with ASD who they are not particularly close with or knowing someone else who works with autistic people.

The majority of the participants indicated that they were familiar with ASD before participating in the research. Only 35 of the 146 participants indicated that they were not familiar with ASD before participating in the research. Therefore, a subset of the remaining 111 participants who were familiar with ASD before participating in the research was created

for the sensitivity analysis. As shown in Table G6, the two-way interaction between defendant information group and crime type on sentence lengths remained significant. However, there was no significant main effect of defendant information group on sentence length in this subset. Additionally, the analysis of the simple main effects showed that in the subset there was no significant effect of defendant information group on sentence length in the assault case $F($2, 103) = 4.11, p = .057, the stalking case, F(2, 102) = 2.07, p = .393 or the burglary case, F(2, 106) = 0.58, p = 1).

Table G6

ANOVA Results of the Complete Data Set and the Subset for Control Variable 4

	Complete data set (N = 146)				Subset 4 (n = 111)			
Predictor	df_{num}	df_{den}	F	p	df_{num}	df_{den}	F	p
Group	2	130	4.08	.019	2	96	1.84	.165
Crime Type	1.89	245.12	2.44	.093	2	192	2.27	.106
Group * Crime Type	3.77	245.12	3.17	.016	4	192	3.01	.019

Note. df_{num} indicates degrees of freedom numerator. df_{den} indicates degrees of freedom denominator.

Two sample t-tests showed that there was a significant difference in sentence length between the participants who were and who were not familiar with ASD for the assault case, t(52.30) = 2.11, p = .039, but not for the stalking case, t(43.57) = 1.47, p = .150, or the burglary case, t(59.40) = 0.48, p = .633. For the assault case, participants who were familiar with ASD gave lower sentences than participants who were not familiar with ASD. The means and standard deviations of sentence length, for all cases and grouped by ASD familiarity, are shown in Table G7.

Table G7

Means and Standard Deviations per Case Grouped by ASD Familiarity

ASD Familiarity	Yes		No	
	M	*SD*	*M*	*SD*
Assault	7.7	11.6	13.0	13.2
Stalking	10.4	12.6	15.3	18.3
Burglary	10.5	10.7	11.4	10.3
Total	9.5	11.7	13.2	14.2

Appendix H: Means and Standard Deviations per Code

Table H1

Means and Standard Deviation per Code for the Assault Case

		ASD + Know.		ASD		Control		Total	
Code	Variations	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Crime Relevant Factors	Nature of the crime	7.1	8.0	11.9	16.4	15.4	13.8	12.3	13.7
	Victim impact	8.3	8.2	7.8	7.9	12.7	11.0	9.4	8.5
	Victim behaviour	3.0	3.5	1.8	2.0	5.8	5.4	3.2	3.7
	Total	6.1	7.6	8.8	14.5	14	13.5	10.3	12.9
Offender Intentions	Understanding intent	3	3.2	2.7	3.7	5.6	3.7	3.5	3.9
	Malicious intent	2.3	1.5	-	-	13.6	17.7	11.0	16.1
	Total	2.9	2.9	2.7	3.7	10.3	14.0	4.9	8.5
Purpose of the Punishment	Alternative punishment	0.6	1.6	0.6	0.9	-	-	0.6	1.3
	Learning opportunity	4.0	2.8	-	-	18.3	10.7	14.8	11.3
	Total	1.1	1.0	0.6	0.9	16.0	11.6	3.8	7.9

Note. In the control group, there was only one sentence length for *alternative punishment*. Therefore, no mean or standard deviation could be calculated even though it influenced the mean and standard deviation of the total of *purpose of punishment*.

Table H2

Means and Standard Deviation per Code for the Stalking Case

		ASD + Know.		ASD		Control		Total	
Code	Variations	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Crime Relevant Factors	Nature of the crime	19.4	13.9	8.9	8.4	15.7	13.5	13.5	12.2
	Victim impact	22.2	20.1	10.8	16.9	15.1	10.4	15.8	16.0
	Total	23.6	17.2	10.3	12.9	14.8	11.5	15.1	14.1
Offender Intentions	Understanding intent	6.1	7.7	4.1	3.4	-	-	5.1	5.8
	Malicious intent	10.3	12.1	9	4.2	29.6	26.9	19.7	21.6
	Total	7.2	8.5	4.9	4.0	29.6	26.9	10.5	15.3
Purpose of the Punishment	Alternative punishment	1.8	2.9	3.8	5.7	4.8	5.2	3.3	4.7
	Learning opportunity	11.6	10.3	7.8	11.2	18.5	14.1	13.5	12.9
	Total	4.8	7.5	5.3	8.2	12.0	12.7	7.4	10.2

Table H3

Means and Standard Deviation per Code for the Burglary Case

		ASD + Know.		ASD		Control		Total	
Code	Variations	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Crime Relevant Factors	Nature of the crime	8.0	7.7	11.6	13.2	14.3	10.5	11.6	11.1
	Victim impact	13.4	9.5	5.3	3.9	19.6	11.7	14.5	10.8
	Total	8.6	8.1	11.6	13.2	13.9	10.2	11.7	10.9
Offender Intentions	Understanding intent	4.6	3.9	5.0	5.7	3.5	3.5	4.7	4.7
	Malicious intent	15.4	13.6	12.2	6.5	11.3	9.3	13.5	10.5
	Total	11.2	12.0	8.6	7.0	8.7	8.4	9.7	9.5
Purpose of the Punishment	Alternative punishment	2.3	2.7	0.6	1.3	4.7	10.0	2.5	5.4
	Learning opportunity	-	-	12.2	8.7	23.6	13.0	17.9	12.1
	Total	2.3	2.7	6.4	8.5	13.3	14.7	7.3	10.7