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The Stigmatization of Children with Autism Spectrum Disorder as Influenced by Gender

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The Stigmatization of Children with

Autism Spectrum Disorder as Influenced by Gender

by

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Abstract

Children who are diagnosed with Autism Spectrum Disorder are inherently more vulnerable to stigma in ways that children without this diagnosis are. The current study was an experimental study in which attitudes towards children with and without Autism were measured through a vignette along with an attribution questionnaire. The purpose of the questionnaire, modified from Ling, Mak, & Cheng (2010) was to analyze peoples' perceptions about the actions of children with and without Autism. The questionnaire examined sympathy, helping behavioral intention, punitive behavioral intention, perceived controllability, and anger. Disability status was defined as the first independent variable, with gender being defined as the second independent variable. The current study hypothesized that children with Autism Spectrum Disorder would experience more stigma when eliciting negative behaviors than children without a mental disability would. Secondly, it was hypothesized that gender would be impactful, such that boys would experience more stigma than girls. Therefore, it was hypothesized that boys with Autism Spectrum disorder would be the most stigmatized group out of the four groups in the study. The design of the study was a 2 (Participant Gender: Men vs Women) X 2 (Target Gender: Boy vs Girl) X 2 (Disability Status: ASD vs No ASD) factorial design. Participant gender and contact history were analyzed as supplemental variables.

Introduction

There has been a continuous effort within psychological research to better understand the experiences of children with mental disabilities, such as Autism Spectrum Disorder. These efforts are crucial in order for us to move towards a society in which these individuals are not stigmatized against because of something they cannot control. Having a mental disability does not make you any less of a person or less deserving of equal treatment. However, the challenge in understanding how we can reduce and eradicate stigma lies in understanding those affected by the disorder in combination with those perpetuating the stigma. The current work aims to analyze the differential treatment of children with Autism compared to children without Autism to understand their differing experiences. In addition, this work also aimed to analyze the gender differences that arise within the stigmatized treatment of children with Autism, seeing as how gender norms and binaries are deeply engrained in our society.

Autism Spectrum Disorder

Autism Spectrum Disorder (ASD) is a group of complex neurodevelopmental impairments that can be identified by repetitive and characteristic patterns of behavior, including difficulties with social communication and interaction (National Institute of Neurological Disorders and Stroke, 2015). Because it is a *spectrum*, the severity of the disorder can vary greatly from person to person. Even though there is a tendency for abnormality in neurobiological processes at very early stages in life, Autism is rarely diagnosed before the age of three years (Landa, Holman, & Garrett-Mayer, 2007). Those affected by the disorder may have a wide range of symptoms, skills, and levels of disability in functioning. As such, some individuals with Autism are completely able to participate in everyday life and perform regular activities, whereas others with a more severe diagnosis

may require substantial assistance when going about their daily lives (National Institute of Neurological Disorders and Stroke, 2015).

Although there are vast differences in how the disorder manifests itself in different individuals, largely depending on the severity of the diagnosis, there are a number of basic symptoms that unify those affected by the disorder. These symptoms include impairments to communication and social interaction, as well as limited, stereotypical behaviors and interests that distinguish Autism from typical development (Landa et al., 2007; Pereverzeva & Gorbachevskaya, 2017). Even though there are therapies and behavioral interventions designed to remedy and substantially improve specific symptoms of Autism, there is no actual cure for the disorder. An ideal treatment plan combines therapies and educational / behavioral interventions that are tailored to the specific needs of the individual (National Institute of Neurological Disorders and Stroke, 2015). This is done because of the variability of the disorder making it impossible to apply a one-size-fits-all treatment plan, which adds to the difficulty in dealing with Autism. In certain cases, medications that help with related symptoms including anxiety, depression, and obsessive-compulsive disorder can be used to then help manage the main symptoms of Autism (National Institute of Neurological Disorders and Stroke, 2015).

Due to the nature of the disorder, not all children with Autism clearly exhibit the aforementioned abnormalities early in life, and if they do they often vary. Thus, Autism can consequently be quite difficult to identify and diagnose compared to other neurodevelopmental disorders (Landa et al., 2007). In standard diagnostic protocols, the earliest signs of Autism Spectrum Disorder include impairments to the establishment and maintenance of eye contact, an inability to maintain joint attention, and other means of verbal and non-verbal communication (National Institute of Neurological Disorders and Stroke, 2015). As the child develops with age, there is a tendency for them to show impairments to

other more complex forms of social behavior, including the inability to read the thoughts and feelings of others (Pereverzeva & Gorbachevskaya, 2017). This inability can be detrimental to creating and maintaining friendships and other social relationships which can have a lasting impact on their lives.

The most recent data from the Centers for Disease Control and Prevention show that an estimated 1 in 68 children are on the Autistic Spectrum, with boys being more at risk than girls. Around 20 percent of children diagnosed with Autism also have a certain genetic condition, such as Fragile X or Down Syndrome (National Institute of Neurological Disorders and Stroke, 2015). Additionally, over half of the children diagnosed with Autism have severe intellectual developmental impairments. The nature of the disorder is such that the developmental histories of diagnosed children tends to vary, with some developmental anomalies being present since birth and others manifesting after about 12 months of age (Pereverzeva & Gorbachevskaya, 2017). These statistics emphasize the commonality of the disorder, and therefore highlighting the importance of continued research on the subject. Further research can subsequently increase our understanding of how these individuals are stigmatized against so as to help address the issue.

The relatively typical appearance of children with Autism may exacerbate the hostile or insensitive reactions they encounter by the public (Gray, 1993). The behaviors exhibited by children with Autism that are either inappropriate or violate social norms are therefore often seen as being forms of disobedience rather than symptoms of their disorder (Ling, Mak, & Cheng, 2010). Public members who are uneducated on the nature of the disorder may act particularly hostile or stigmatizing towards people with Autism. This may stem from the notion that the actions of those with Autism are done by choice and therefore preventable, when in actuality they are symptoms of the disorder. The lack of visual cues indicating a disability creates a sort of dissonance that can make it harder for people to attribute the

child's behaviors to their disorder. Level of controllability is one of the effects of concealed

stigma that individuals with Autism may experience. Furthermore, past research has indicated

a tendency for people lacking social skills combined with a tendency to perform

inappropriate affective behaviors as being less likely to receive good care (Ling, Mak, &

Cheng, 2010). This becomes particularly relevant when considering that individuals with

Autism often require fulltime care throughout their lives, and a lack of adequate care can

have a negative impact on their overall well-being. Some teachers have a tendency to be less

empathetic towards students with Autism compared to children possessing other special

education needs (Ling et al., 2010). Certain misconceptions about children with Autism, such

as having special talents or not having learning difficulties, may cause teachers and other

care-givers to place unrealistic expectations on those affected (Ling et al., 2010). This can

hinder progress in a child with Autism and overall be detrimental to their well-being.

Attribution Theory

According to attribution theory, people's understanding of the etiology of a disorder

may influence their affective responses and behavioral intentions. A distinct attribution is the

level of controllability an individual possesses, which has been strongly associated with

stigma (Ling et al., 2010). In other words, if a condition is regarded as controllable by the

individual, responsibility is likely to be assigned to the person rather than the condition,

which then tends to lead to negative affective responses. Thus, if a teacher sees the actions of

a child with Autism as being controllable and therefore avoidable, they may have more

negative attitudes towards that child. This may result in the child being deprived of the proper

care and treatment needed for their particular disorder. Causal dimensions of attribution

theory outlines locus, stability, and controllability as impacting an individuals' expectancy

beliefs, emotions, and motivated behaviors (Weiner, 1985). The first dimension is locus,

which states that the result of an action is dependent on two conditions: factors within the

person and factors within the environment (Weiner, 1985; Heider, 1958). Locus therefore

operates as the internal-external causal dimension of attribution theory. The second

dimension is stability, which refers to how internal and external dimensions can either

fluctuate in their application, or remain constant (Weiner, 1985). The third and final

dimension of causality is controllability, referring to the extent to which an individual has the

ability to control their actions, both internal and external. Dimensions such as mood and

fatigue are usually not within the control of an individual, whereas laziness and tolerance are

often perceived as being controllable (Weiner, 1985).

One of the reasons behind the creation of a causal taxonomy is to enable an onlooker

or investigator to compare and contrast the causes behind an individual's actions. How others

perceive the extent to which a child with Autism has control over their actions therefore

impacts their response to these actions (Weiner, 1985). The response may be more positive

and forgiving when recognizing that the child lacks controllability of their actions because of

their disorder, or more negative if they possess the belief that the child is in control of their

actions. An individual with an internal locus of control can have a negative experience in a

situation where these expectations are not upheld because of the actual limitations of the

disorder. Taking this in combination with the fact that the public still has fairly little

knowledge of the disorder, the situation for individuals with Autism is often worse when

compared to individuals with Down's Syndrome, for example (Gray, 1993). When

comparing experiences of children with Autism to children with other special education

needs, teachers have been found to show less empathy to children with Autism (Ling, Mak,

& Cheng, 2010). The lack of visible markers of the disorder is often a contributing factor for

why their actions are seen as forms of disobedience rather than symptoms of their disorder.

This can subsequently lead to a decrease in empathy, allowing for an increase in stigmatizing

behaviors towards them. Thus, it becomes imperative that people understand why and how a

child with Autism behaves the way they do in order to foster a supportive environment for

them.

Stigma

Rarely do we have the conscious recognition that we actively possess a stigma

towards another person. However, that is not to say that it is rare for persons to possess

stigmas towards other individuals or groups; this happens daily. Goffman's (1963)

establishing definition of stigma states that it is a deeply discrediting condition that can

reduce a whole person to someone lesser. A stigma can therefore be defined as an adverse

reaction to a difference perceived as negative (Susman, 1994; Green, 2003). An identity that

is stigmatized is therefore socially devalued with negative stereotypes and beliefs that are

attached to this identity (Quinn & Earnshaw, 2013). These perceptions often profoundly

affect the quality of life of those bearing the stigma, and sometimes affect those directly

related to the stigmatized individual (Green, 2003). We create certain anticipations with

regards to others that we then transform into what can be called *normative expectations*. We

further develop these expectations into demands that we internally, or sometimes externally,

ask others to uphold and adhere to (Goffman, 1963). These demands are essentially a *virtual

social identity* that we internally ask others to live up to. However, the majority of the time

we are unaware of the fact that we have even created these demands. (Goffman, 1963). If a

person fails to fulfill this virtual social identity, they may be reduced in our minds to a

subordinated 'other', at which point we may begin to stigmatize them. According to Goffman

(1963) in his theoretical framework on stigma, only those traits which are incongruous with

our stereotype of what a given individual should be cause us to stigmatize a person.

Once we begin to stigmatize a person, we construct a kind of *stigma-theory*; an

ideology that we use to explain what we perceive to be this person's inferiority. Sometimes

we may rationalize this animosity based upon other perceived differences, such as social

class (Goffman, 1963). Goffman argues that stigma is best explained through the notion of deviance from prevalent or valued norms, but that this deviance is not an inherent property and that a person is not deviant until their acts or attributes are perceived as being negatively different (Goffman, 1963; Susman, 1994). Additionally, close friends and family members of individuals with disabilities may contract courtesy stigma due to their relationship with the stigmatized individual (Goffman, 1963). Stigma by association therefore spreads to anyone who is in contact with a person diagnosed with a disability, making them the targets of stereotypical opinions and discriminatory behaviors (Milačić-Vidojević, Gligorović, & Dragojević, 2014). Although research on courtesy stigma specific to persons with Autism is sparse, findings indicate that stereotypical opinions and discriminatory behaviors are often felt by family members. These include the tendency to blame family members for the onset of the illness, the expectation that they should be ashamed, that they are incompetent in performing their family roles, and that they should be avoided and pitied (Milačić-Vidojević et al., 2014). These stigmatizing behaviors link back to a general lack of public knowledge surrounding Autism Spectrum Disorder.

 Stigma does not only affect individuals in the form of negative attitudes and experiences with others, but can be much more deeply rooted in the self. Not only do individuals struggle with the symptoms of the disorder, they are also challenged by the stigma that comes as a result of the disorder (Corrigan & Watson, 2002). Even though Autism is a relatively common disorder, this does not prevent it from being a stigmatized condition. The stigma surrounding a disorder can therefore lead to individuals not seeking treatment for themselves or for a dependent. Estimates indicate that less than 40 percent of those with severe mental illnesses are recipients of consistent mental health treatment (Ahmedani, 2011). Although stigma is not the single underlying reason for this statistic, it has been cited by both the U.S. Surgeon General and the WHO as a key barrier to the seeking and

sustaining of treatment (Ahmedani, 2001). The stigma surrounding Autism in particular, and the fear of social backlash, may be a reason behind a family's hesitation to seek treatment for their child.

Disabilities & Stigma

The ADA (Americans with Disabilities Act) defines a person with a disability as "a person who has a physical or mental impairment that substantially limits one or more major life activities" (adata.org). Individuals with disabilities are commonly viewed as the bearers of negative traits, and therefore as burdens (Green, 2003). Because disabling conditions, such as Autism Spectrum Disorder, evoke negative or punitive responses in people, they can be considered stigmatizing (Gray, 1993). Extensive research by social scientists has illuminated both the causes and the forms of these negatively denoted responses to better understand their impact on the lives of people with disabilities (Susman, 1994; Green, 2003; Gill & Liamputtong, 2010). The definition of stigma that is most commonly quoted by many authors within psychology is that by which Goffman defined it as mentioned beforehand. Since this particular definition of stigma was coined, other authors have proposed that "stigma can be defined as a characteristic of an individual that is contrary to the norm of a social unit" (Link & Phelan, 2001). In this case, that norm is defined as a shared belief of how a person should behave in certain situations (Link et al., 2001).

All forms of chronic illnesses and disabilities pose a challenge to the affected individual and their caregivers. However, there are few that can be as challenging as Autism in terms of the extremely disruptive nature of the symptoms combined with the normal physical appearance of the individual (Gray, 1993). In addition, the prognosis for Autism specifically is extremely limited and there is no cure for the condition. This means that affected individuals, depending on the severity of their condition, are unlikely to live or work independently of their families (Gray, 1993). The severity to which a child with Autism can

have a tantrum over something seemingly insignificant often evokes negative reactions from

people in the public sphere, which can be caused by both a lack of public knowledge (Gill et

al., 2010) and a lack of intergroup contact (Yuker & Hurley, 1987). A difficulty specifically

linked with Autism is the fact that it is often a long and frustrating road to getting the

diagnosis due to the absence of a reliable biological marker, and beyond that may be difficult

to seek help due to the lack of services and treatments available (Gray, 2003). Because of

how challenging it is to accurately diagnose a child with Autism, many times they receive a

misdiagnosis which consequently leads to not receiving the right treatment (Gray, 2003). Not

only is it challenging to obtain the correct diagnosis, but living with and caring for an

individual with Autism poses a number of challenges for families in terms of psychological

stress and financial resources. Having a child with Autism also poses challenges with regards

to public encounters. This makes you vulnerable to experiencing primary public stigma,

which refers to the impact of prevalent negative attitudes and behaviors that members of the

public have and direct towards persons with disabilities and mental illnesses (Milačić-

Vidojević et al., 2014).

Stigma Reduction

Even though a disability is not inevitably stigmatizing, it is common for people to

have negative responses towards individuals with disabilities. Often times, this may be

because those not in possession of the disability feel discomfort. This feeling may then

transfer to the disabled individual and having an overall negative influence on them (Susman,

1994). The underlying reasons for people to feel discomfort around persons with disabilities

may sometimes be because of little to no previous exposure with a disabled person.

Alternatively, discomfort could stem from a feeling of duty to interact with a disabled person,

which people may avoid doing if they have a socially acceptable reason to do so (Susman,

1994). There is an interesting duality within the interactions of 'normal' people and people

with disabilities. On the one side, non-disabled persons may report favorable responses to persons with disabilities. On the other side, however, non-disabled persons have a tendency to feel uncomfortable and uncertain when interacting with persons with disabilities, and as such, they may cut short or avoid encounters with them (Susman, 1994). To resolve this problem, more interactions with disabled persons may be beneficial in reducing stigma towards them.

The stigma that people elicit towards an oppressed group or individual often stems from the stereotypes they hold about that person (Fiske, Cuddy, Glick, & Xu, 2002). With regards to Autism, societal stereotypes about high-functioning Autism and traits such as over-intelligence, may prove to be derogatory when an individual does not elicit that trait. Individuals might be harsher in their judgement of a child exhibiting symptoms of the disorder, and as such doesn't fit their expectation. This points us back to the impact that a lack of public knowledge can have on individuals with Autism. An unsurprising method of reducing this kind of stigma is the protesting of incorrect information about the disorder and educating people on the realities of Autism (Milačić-Vidojević et al., 2014).

Stereotype Content Model

The Stereotype Content Model was utilized in order to research the perceived warmth and competence levels of various oppressed groups (Fiske, 2012). This model aims to capture the intricacies of an oppressed group's situation, while at the same time pinpointing the underlying dimensions that may explain their shared experiences (Fiske, 2012). The authors argue that stereotypes can be grouped into two main dimensions: warmth and competence. First, the model looks at warmth by analyzing whether someone in the oppressed group has good or bad intentions, with these intentions being inferred from the mutual relationship. Based on if their intentions are good or bad, we either assume the person to be warm and trustworthy or cold and untrustworthy. It matters whether or not we know someone's intent in

order to predict what they may do next (Fiske, 2012). Second, the model looks at

competence. The competence part of the model is necessary in order to assess whether or not

the oppressed group has the ability to act on their intentions, whether good or bad. If we

conclude that a person does indeed have a high level of competence, they matter more to us

than if they do not. People infer someone's level of competence from their status, for

example in terms of economic success or job prestige, with higher status indicating more

competence (Fiske, 2012). The level of competence an individual possesses can be indicative

of the threat they pose to someone else in terms of being a threat to for example their job or

relationships (Fiske, et al., 2002).

The model places people with disabilities on the low competence, high warmth

dimension due to eliciting feelings of pity and sympathy (Fiske, et al., 2002). However, the

model tends to place people with Autism on the slightly colder, low competency dimension

of the model, unlike the placement of individuals with other disabilities. This may be due to

how people with Autism often act inappropriately in social situations and find it difficult to

read others' emotions. This can lead to the notion that their intentions may not be good,

leading people to mistrust them. However, individuals with high functioning Autism may be

on the cold and high competence dimension of the model due to exceeding intellectual

abilities combined with debilitated social skills (Fiske, 2012). However, they may still exhibit

a lack of proper social skills and therefore be seen as less trustworthy.

Ingroup vs. Outgroup Experiences

Although persons with disabilities are not always perceived or represented as being

negatively different, the problem of stigmatization is still persistent. A fundamental reason

for this problem is that oftentimes, a person's disability overshadows their personal identity.

Many researchers, including Goffman, indicate that a disability tends to represent the master

status of a person, in that it becomes the designated characteristic by which that person is

defined. Thus, a person with an impairment gets lost to awareness and only the impairment itself remains seen (Susman, 1994). Efforts to make people see the person for who they are and not simply for their disability can also help in reducing their stigmatization. The negative traits associated with persons with disabilities can sometimes overshadow other characteristics that more accurately define the individual within more familiar social categories (Green, 2003). When interacting with a person with a disability, significant characteristics such as personality or sense of humor may be dismissed because the viewer overemphasizes the role of the disability in defining the person. If people were to shift their focus from disability to personality, we may see more positive interactions between non-disabled and disabled individuals.

Non-disabled persons can feel a variety of negative emotions, from awkwardness to anxiousness, when faced with the negative traits of persons with disabilities. As such, they may tend to react in compensatory ways in an effort to hide their discomfort. This can in turn have a significant impact on the stigmatized individual's sense of self and their participation in the wider community (Green, 2003; Link et al., 1989). Having people see and define you only as your disability and as someone who is deviant from the norm inevitably opens the doors to stigmatizing that person. It has been argued that people reduce individuals with disabilities to something lesser in their minds, thus reinforcing social stigma (Goffman, 1963). To avoid doing this can require an active effort to look at that person without acknowledging the disability and instead judge them by for example their character traits. Because this may require getting to know the person and cannot necessarily be done at a glance, many people do not have the chance to do this. Green (2003), a mother of a teenager with cerebral palsy reported that her daughter was entirely accepted among friends, neighbors, and even casual acquaintances despite physical and verbal abilities that severely

deviate from the norm. She reported that as people came to know her through ordinary encounters, their discomfort seemed to shed.

The theory of intergroup contact, credited to Gordon W. Allport, also known as the contact hypothesis, states that correctly managed contact between groups can reduce stereotypes and prejudice. This has been shown to be one of the most effective ways to minimize hostility between members of majority and minority groups. Through communicating with others, we open ourselves up to the opportunity of understanding and getting to know each other. This can lead to a new appreciation for the other group members, and as such diminish prejudice (Allport, 1954). However, it is important to note that responses to an individual with a disability as visible as cerebral palsy may be more positive because of the visual cues available. An individual with Autism may experience more negative responses due to their seemingly 'normal' appearance combined with behaviors that often deviate from what is deemed socially acceptable. Autism is unique in this sense because people tend to place more individual blame on the person for acting differently, as if they do it on purpose, instead of attributing it to the disorder.

The normal physical characteristics of a child with Autism combined with the relative lack of public knowledge surrounding the disorder often leads to hostile public reactions to the child's inappropriate behavior (Gill & Liamputtong, 2011). Several studies indicate that parents of a child with Autism tend to be more depressed, anxious, and feel more stigmatized against by their community than parents of children with other disabilities that have more distinct physical traits (Gill et al., 2011). The combination of the autistic child's seemingly 'normal' physical appearance with their challenging behavior often leads people to react negatively and attribute the actions of the child to misbehaving instead of to the disability which they suffer from.

Visible vs. Concealed Stigma

Due to the complexity of stigma and the wide variety of ways in which it can be experienced by marginalized individuals, it has been the focus of much psychological research. When looking at an individual in a minority group and their relationship to the majority group, the concealability of the minority individuals' stigma plays a significant role in their interactions (Herek et al., 1996). A majority group member interacting with an individual who has a readily apparent (i.e., visible) stigma may be more likely to evaluate that person in terms of their minority status (Herek et al., 1996). As a result, they apply any preexisting attitudes and beliefs they have towards the minority group member as a primary way of characterizing them, adding to their stigmatization. In other words, they see the minority group member for their stigmatizing characteristics instead of the person that they are when those characteristics are disregarded. It should be noted that a person with a concealable stigmatized identity tends to have a different experience compared to someone with a visible stigmatized identity (Quinn et al., 2013). In this case, that concealable stigmatized identity may be applied to an individual with Autism.

Because the disorder mainly affects the neurodevelopmental aspects of an individual and less so their physical traits and characteristics, Autism Spectrum Disorder is, to a certain extent, a concealable stigma. It is concealable in the sense that a person who passes someone with Autism on the street may have no idea that they possess that disorder because of the lack of visual cues. However, it is only concealable to a certain extent. Once you begin to interact with an individual with Autism, you will likely notice a difference in their ability to interact and communicate compared to individuals without this disorder.

Despite the fact that concealable stigmatized identities are common, research on the majority of these identities has been scarce and disjointed (Quinn et al., 2013). Researchers have found that most individuals with a concealable stigmatized identity will likely have both

negative and positive feelings related to the self. Whereas some people may feel ashamed or embarrassed by their identity, others may not possess these feelings at all (Quinn et al., 2013). By definition, concealable stigmatized identities are devalued by the larger culture, with variation in people's cognitions and feelings regarding their own identity. Some may expect to be belittled if their stigmatized identity becomes known, whereas others may expect to receive more supportive reactions. This can all depend on the context of who is finding out about their identity and how they are expected to react. When people keep these stigmatized identities to themselves out of fear that they may receive negative reactions, their self and mental well-being may be negatively affected. Different feelings, thoughts, and experiences about their stigmatized identities affect how people view themselves. This in turn has an effect on their psychological well-being, such as increased levels of depression, anxiety, and stress (Quinn & Earnshaw, 2013).

Concealable stigmatized identities are composed of internalized stigma, experienced discrimination, anticipated stigma, disclosure reactions, and counter-stereotypic information (Quinn et al., 2013). Internalized stigma is when a person actually believes that the negative stereotypes about their identity apply to themselves. The concealability of a stigma may be crucial in order to understand the experience of a stigmatized individual in mixed-contact interactions; when both stigmatized and non-stigmatized individuals are interacting (Smart & Wegner, 1999). Individuals who are more likely to internalize these negative beliefs are often those who have learned about them before obtaining the specific identity (Quinn et al., 2013). People who continue to conceal their stigmatized identity may do this in order to minimize the impact of their identity on other people's judgements of them (Smart & Wegner, 1999). However, this can come at a high internal cost including a decreased sense of self-value. Experienced discrimination usually requires some level of disclosure about the concealable stigmatized identity, and the person in possession of the identity may choose to disclose it or

be placed in a situation where it is already known. In these situations, an individual may experience discrimination due to their concealable stigmatized identity, including being denied a job or given inferior treatment. Furthermore, they may even experience subtle social discrimination and devaluation by friends, family, and co-workers (Quinn et al., 2013).

Anticipated Stigma

Anticipated stigma is when a person anticipates what kind of treatment they will receive if others found out about their stigmatized identity, stemming from an awareness of negative societal stereotypes about their specific identity. This may for example be an individual who identifies as gay and has avoided telling others due to the perceived negative reactions they may receive if they did (Quinn et al., 2013). Disclosure reactions are a more positive idea that highlights the possible supportive and accepting reactions an individual may receive upon disclosing their concealable stigmatized identity to another. These positive reactions can in turn have a profound effect on how that individual construes their identity (Quinn et al., 2013; Beals, Peplau, & Gable, 2009). The outcome of an individual's first experience of disclosure can be impactful for future disclosure experiences and psychological well-being (Chaudoir & Quinn, 2010). Someone who receives negative responses upon confiding in someone else may refrain from disclosing in the future. The effects of concealing a stigmatized identity can have considerable psychological effects including stress and guilt (Chaudoir et al., 2010). Furthermore, for individuals to actively conceal their stigmatized identity can act as a psychological stressor, often leading to relief upon disclosure (Smart & Wegner, 1999). Finally, counter-stereotypic information is when instead of accepting negative views of the self, individuals with the counter-stereotypic information searches for ways in which they can make their negative label have positive meaning. People may start out by accepting and internalizing negative stereotypes about their counter-stereotypic information and then move into rejecting and devaluing these beliefs (Quinn et

al., 2013). This can lead to an empowered sense of self and an increase in self-confidence. A person with a visible stigmatized identity may have less control over the extent to which it becomes self-definitional compared to someone with a concealable stigmatized identity. This is a key difference in visible and concealable stigmas; because of visual cues, or the lack thereof, they manifest themselves differently and have a different effect on the overall experience of an individual.

Social Cognition

Social cognition is the study of social information processing which encompasses our thoughts about others and thoughts about the self in relation to others. It can be defined as the mental representations people hold of their social world, such as beliefs about the causes of social events, about the characteristics of persons and social groups, and general knowledge about relationships among social actors and social behavior patterns (Brewer & Hewstone, 2003). The term *cognition* refers to the unconscious mechanisms in the mind by which sensory input is transformed and used. This is in other words a sort of neural implementation of experiences (Neisser, 1967) which people may either be consciously or unconsciously aware of. Studies conducted within the area of social cognition contribute to a better understanding of prejudice, peer pressure, group behavior, and bullying (Greenwald & Banaji, 1995). There is considerable evidence outlining the subtleties of cognition and the ways in which it tends to operate implicitly and unconsciously. Implicit cognition can therefore be identified by the way in which past experience influences judgement in a way that is unrecognized by the person doing the judging (Greenwald et al., 1995). Present research indicates that attitudes, self-esteem, and stereotypes all have important modes of operation, therefore extending the construct validity and potential usefulness of implicit social cognition within the field of social psychology (Greenwald et al., 1995). Implicit cognition refers to the processes that operate without the conscious control of an individual,

making them somewhat difficult to measure and understand (Banaji, Lemm, & Carpenter, 2007).

Recent findings of discrimination exerted by people who explicitly renounce prejudice can therefore be tied to the process of implicit stereotyping (Greenwald et al., 1995). Someone who may not explicitly agree with discriminatory practices may act in ways which are in fact discriminatory, though they may be subtle. A challenge with measuring implicit cognition is that it requires the use of indirect measures. Indirect measures imply that you neither inform the participant of what is actually being assessed, nor request that they self-report as this would not be a true measure of implicit cognition. This is a challenge in terms of making it more difficult to measure as well as limiting the various measures available. Research on implicit cognition and how one might evaluate others reveals a relatively high susceptibility to situational intrusions (Banaji et al., 2007). Sometimes it doesn't take more than the addition of a single specific word in order for attitudes to be activated (Greenwald et al., 1995). This activation of constructs about others, whether temporary or chronic, can influence behavior in a multitude of ways, such as your desire to work with a disabled person (Banaji et al., 2007). Research has also demonstrated that sentences describing specific behaviors may produce spontaneous trait inferences about a certain subject (Greenwald et al., 1995). These effects of effortless activation therefore contribute to an individuals' implicit social cognition (Greenwald et al., 1995). This implicit social cognition can be applied to the way people judge individuals with Autism Spectrum Disorder in the sense that negative attitudes and stereotypes towards them may only be implicit. As a result, this in turn may have caused the word 'Autism' itself to activate negative stereotypes.

Previous work within the field of social cognition does not identify differences between the processes that drive cognition and social cognition (Semin & Garrido, 2012).

However, with the discovery of the mirror neuron system came the notion that the nature of knowledge is biologically distributed. The mirror neuron system reveals a congruence between observed and executed action with regards to the means to achieve a specific goal (Semin et al., 2012). As highlighted within the research by Semin et al. (2012) there is a difference in ontological status between social knowledge and knowledge about the world in general. Social knowledge is biologically "pre-grounded" in nature, whereas knowledge about the object world is acquired through sensorimotor processes shaped by goal-directed interactions (Semin et al., 2012; Caggiano et al., 2011). Four major approaches to social cognition have been identified as prototype, exemplar, associative network, and connectionist models of mental representation (Brewer et al., 2004). Prototype models are strongest when perceivers have little direct experience with the category combined with strong group expectancies. These models infer that people represent categorical information in fuzzy sets, with attributes about the category lacking definite boundaries or systematic organizing criteria. Exemplar models place an emphasis on the role of concrete examples in mental representation, and have their basis in actual experience with members of a specific category. As such, target individuals are compared with mental representations of actual category members by the perceiver as a way to form judgements. It has long been understood that perceivers do not process new information in a fully unbiased manner, rather they rely on prior knowledge in order to make sense of the new information being presented (Smith & Queller, 2004). Associative network models infer that all knowledge and experience with a group or a specific member are cognitively represented and organized by interlinked nodes, much like the term suggests. In order to understand social cognition further, it may be important to understand how cognition is socially situated. This understanding of cognition places cognitive phenomena as emergent products of social interaction in a physical environment (Semin et al., 2012). Actions or interactions with an object or person largely

shape the meaning we apply to said object or person. With regards to the current study, social cognition can be applied to how participants apply preexisting social constructs when judging the child they are presented with. Social cognition can therefore help us explain the meaning, whether positive or negative, a person applies to the subject at hand.

Intergroup Contact

Individuals who are members of a minority group are often subjected to negative attitudes from non-members, and these differ depending on the specific minority group at hand. Through the use of extended or intergroup contact, the prejudiced attitudes that persons have towards members of a minority group may be altered (Yuker & Hurley, 1987). However, depending on the parameters of the contact, resulting attitude changes have the potential to either be positive or negative. Research has placed an emphasis on the importance of structured experience, equal status contact, and non-stereotyped behavior (Yuker et al., 1987). The intergroup contact hypothesis, as coined by Allport (1954), states that in order for intergroup contact to result in positive effects, four key conditions must be satisfied: equal group status within the situation, common goals, intergroup cooperation, and the support of authorities, law, or custom. The most important of these conditions is that both groups have equal status within the situation. However, equal status is hard to define and has been used in a multitude of ways (Pettigrew, 1998). Although it is important that both groups involved not only expect equal status, but also perceive equal status for this condition to effectively be a part of prejudice reduction. Whereas some studies emphasize the equal group status coming into a situation, others have found this to be less important than equal status within the specific situation (Pettigrew, 1998). When these four criteria were met during out-group interactions, individuals were more likely to see similarities between groups, leading to an increase in empathic responses to the out-group (Pettigrew, 1998).

A meta-analysis by Mullen et al. (1992) found that the cross-categorization paradigm increased or decreased in-group bias depending on how the bias was defined. The factors behind the different results from this research note that in-group bias increased with relative status in laboratory groups, yet decreased in field research with real groups. Subsequently, the results of field research would most likely dictate results of related real-life situations rather than the results of laboratory research. The second condition is that of common goals stemming from the notion that prejudice reduction, when done through contact, requires an active, goal-oriented effort. The attainment of these common goals will therefore further the process of prejudice reduction (Pettigrew, 1998). The third condition of prejudice reduction is intergroup cooperation. In order for two groups to fulfill their common goals, the effort needs to be interdependent and free from intergroup competition (Pettigrew, 1998; Bettencourt et al., 1992), as this could generate conflict, which could lead to increased hostility and hinder the reduction of prejudice. The fourth and final condition required for prejudice reduction is the support of authorities, laws, or customs (Pettigrew, 1998). Reasons behind this include the notion that having the support of authorities establishes norms of acceptance, which then contributes to a situation where prejudice is reduced. The significance of this particular condition ranges from military to religious institutions and the norms and behaviors they deem acceptable for their members (Pettigrew, 1998).

Early reviews on the subject of contact indicated that close personal or social contact with a person with a disability outside the family context tended to result in a positive attitude change. However, contact in a medical or rehabilitative setting did not tend to result in such positive attitude changes (Yuker & Hurley, 1987). This difference may be attributed to the way in which a medical or rehabilitative setting emphasizes the individual's minority group status as someone with a disability, therefore not allowing others to see past their condition. Research indicates that the effects of contact on attitudes towards members of minority or

disadvantaged groups, including persons with disabilities, are quite complex (Yuker et al., 1987). Efforts to specify the necessary parameters for contact that lead to a positive attitude change have placed an emphasis on the importance of structured experiences, equal status contact, and non-stereotyped behavior (Yuker et al., 1987; Donaldson, 1980).

A more recent development within the field of research on contact that extends the four conditions identified by Allport (1954) is the concept of cross-group friendships (Pettigrew, 1998; Page-Gould, Mendoza-Denton, & Tropp, 2008). Cross-group friendship is when individuals from different groups form a friendship as a result of intergroup contact. Thus, the concept of cross-group friendship demands a fifth condition of Allport's contact hypothesis: that the contact situation must provide subjects with the opportunity to become friends (Pettigrew, 1998). This fifth condition has also been called the "acquaintance potential". In the past decade, there has been a growing body of research suggesting that friendships across groups can rid people of the anxiety sometimes associated with interactions between members of different social groups (Pettigrew, 1998; Page-Gould et al., 2008). The improvements seen in intergroup attitudes as a result of intergroup contact are especially salient when such contact is characterized by friendship. Among implicitly prejudiced participants, it appears as though the development of a new cross-group friendship can at least temporarily increase interest in intergroup interactions, thus bridging the gap between majority- and minority groups (Page-Gould et al., 2008).

A factor to keep in mind when examining the overall effectiveness of cross-group friendship is that those with prior intergroup contact may have stronger feelings of comfort during the interaction than an outgroup member with no previous intergroup experience (Pettigrew,1998). Thus, it becomes important to understand how friendship is operationalized in order to understand which factors lead to larger or smaller effects of attitude change. Previous work on cross-group friendships suggests that factors such as shared activities and

self-disclosure can lead to the development of emotional bonds, therefore improve

intergroup-attitudes (Page-Gould et al., 2008). Research suggests that the potential for

friendship formation is not just a facilitating, but essential, condition for positive contact

effects between groups (Pettigrew, 1998). Cross-group friendship may be applied to

interracial contact and cross-race interactions, or to relations with group members who are

stigmatized due to their disability status, such as individuals with Autism Spectrum Disorder.

Extended Contact

The evaluation and implementation of prejudice-reduction interventions has been the

focus of much research (Pettigrew & Tropp, 2000) in order to reduce stigma in minority and

other marginalized groups. The 'indirect cross friendship hypothesis', also known as the

'extended contact effect', is a recent theoretical development in the literature on adult social

psychology (Cameron & Rutland, 2006, p. 470). According to this effect, there may be a

reduction in bias towards marginalized outgroup members as a result of 'vicarious'

experiences of friendship (Cameron et al., 2006). In other words, this vicarious experience of

friendship can be defined as the knowledge that an in-group member is friends with an

outgroup member. A possible, and quite common, side effect of direct contract is anxiety felt

by either party, which is successfully avoided through the method of extended contact

(Cameron et al., 2006). Alternatively, the method of extended contact can also be used in

situations where there is little or no opportunity for direct contact, allowing for a widespread

reduction in prejudice. This method has evidence to support its effectiveness in adults and

children above the age of 13, but may not be as effective with younger children. Children

below the age of 13 may not yet possess the ability to include other in the self; the ability to

include a member of one's social group in one's own self-definition (Cameron et al., 2006).

There is evidence that social categories such as race, gender, and nationality are

salient to children. This knowledge may be important in order to understand how they view

children around them with disabilities. It may therefore be significant for children to evaluate their peers who have a physical or mental disability as more similar to themselves rather than just as their disability in order for there to be a reduction in prejudice (Cameron et al., 2006). In situations where the opportunity for direct contact is low, findings indicate that extended contact can be used with young children as an intervention tool for prejudice-reduction. The practical implementations of the method of extended contact can have significant outcomes with regards to policies aiming for inclusion of children with disabilities within the education system. Although there are positives associated with the desegregation of children with disabilities in schools, there may be some negatives associated with their self-concept and emotional security (Cameron et al., 2006). In order to reduce these negative consequences stemming from inclusions, one method could therefore be to turn to the method of extended contact before the integration of these children in regular schools. It may then be possible to create a positive environment for children with disabilities prior to their arrival in the classroom.

Contact Questionnaire

With specific regards to Autism, Ling, Mak & Cheng (2010) conducted a study on stigma towards children with Autism Spectrum Disorder through the development of an attribution questionnaire. The purpose of this questionnaire was to provide the means to analyze peoples' perceptions about the actions of a child with Autism. The questionnaire looks at five dimensions: sympathy, helping behavioral intention, punitive behavioral intention, perceived controllability, and anger. Sympathy measures the amount of sympathy participants feel towards the subject, with a higher score indicating more sympathy and as such less stigma, and vice versa. Helping behavioral intention measures the participants' willingness to help the subject, with higher scores indicating more willingness to help and less stigma, and vice versa. Punitive behavioral intention measures how much the participant

feels that the subject should be punished for bad behavior. Higher scores indicate more willingness to punish and therefore more stigma, and vice versa. Perceived control measures the extent to which a participant perceives the subject to have control over their behavior, with higher scores indicating more controllability, and vice versa. Finally, anger measures the amount of anger participants feel towards the subject, with more anger indicating more stigma. Depending on how people score on this questionnaire, the amount of stigma they hold towards children with Autism can be quantified. Stereotypical behaviors often exhibited by children with Autism such as poor social skills, self-destructive acts, and inappropriate affective behaviors all contribute to their stigmatization (Ling et al., 2010). This particular questionnaire was chosen and adapted for the current study as a means to measure stigmatizing attitudes towards children with Autism Spectrum Disorder.

The Current Study

The issue of stigma is one that can be seen in many different dimensions and be applied to many different oppressed groups. Disabling conditions, such as Autism Spectrum Disorder, often evoke negative or punitive responses in people, leading them to be stigmatized against (Gray, 1993). Through widespread research by social scientists, the underlying causes and the different forms of stigma have come to be better understood in terms of their impact on the lives of the stigmatized individuals (Susman, 1994). However, stigma is still a prevalent and complex issue, requiring further research. From how it is experienced by individuals with disabilities to how it may be reduced, stigma is a significant aspect of the lived experience of members of minority groups. A person with Autism may be the target of more negative responses due to a lack of visual cues combined with socially unacceptable. Because of their relatively regular appearance, people tend to disassociate them with their disorder, placing individual blame on them when acting negatively. The prevalence of stigma in its many different forms only strengthens the motivation behind devoting more

research towards the subject. In order to reduce stigma, we must understand how it operates, where it comes from, and what reduction methods are the most effective. Unsurprisingly, having a child with Autism poses a number of challenges. One challenge is the increased vulnerability to primary public stigma. These negative affective responses from members of the public often have a significant impact on the internal state of the affected individual (Milačić-Vidojević et al., 2014).

The current study hypothesized, firstly, that children with Autism Spectrum Disorder would experience more stigma when eliciting negative behaviors than children without a mental disability. Secondly, it was hypothesized that gender would influence stigma, such that boys would experience more stigma than girls. Therefore, it was hypothesized that boys with Autism Spectrum disorder would be the most stigmatized group out of the four groups in the study. Participant gender and contact history were analyzed as supplemental variables when breaking down the results of this study. Through the current research we hope to further advance our understanding of Autism Spectrum Disorder in order to help the individuals affected.

Method

Participants and Design

The participants who took part in the study consisted of 204 individuals (128 men and 76 women). Participants were between the ages of 18 – 65 years old ($M = 31$, $SD = 8.04$), residing in the United States. The racial breakdown of participants was as follows: 44.9% Asian, 41.5% White, 6.3% African American, 4.4% American Indian, 1.5% Other, and 1% Pacific Islander. Participants were recruited through Amazon's Mechanical Turk (Mturk) and were compensated 25 cents for anonymously completing the study online. The design of the study was a 2 (Participant Gender: Men vs Women) X 2 (Target Gender: Boy vs Girl) X 2 (Disability Status: ASD vs No ASD) factorial design.

Procedure

After signing up to take the study online and agreeing to the consent form, participants were randomly assigned to one of four conditions (Girl with ASD, Boy with ASD, Girl without ASD, or Boy without ASD). They viewed a photo of a child, either a boy or girl, and were asked to rate the traits of the child (see Appendix A). Next, participants were asked to read a hypothetical vignette of the child depicted in the photo (see Appendix B). They were then asked to fill out a version of the Attribution Questionnaire (see Appendix C), modified from Ling, Mak, & Cheng (2010). Following this, they were then asked to fill out a contact questionnaire (see Appendix D) which focused on past history and contact with persons with ASD. Finally, they completed demographic items including their age, assigned gender, and sexual orientation, before being presented with a debriefing form.

Measures

Vignette. Photos of one girl and one boy were used in the vignette portion of the current study. The photos were selected from a selection of alternatives after being pre-tested as being similarly rated by a random sample of college students. They rated them on the same

'Trait Ratings' questionnaire that was used in the actual study, as detailed above. This was done in order to control for perceived attractiveness, intelligence, friendliness, shyness, dependency, and honesty. The vignette detailed a situation in a classroom in which the reader is given a description of the child followed by a situation in which the child exhibits negative social behaviors. Any participant assigned to the 'ASD' condition (boy or girl) was also made aware of the fact that the child had this diagnosis, with this being the only differentiating factor between the ASD and no ASD conditions.

Trait Ratings. Participants were asked to rate the child's traits using six items (intelligence, friendliness, shyness, dependency, honesty, & attractiveness). Each item was coded on a five-point Likert-type scale, ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). The ratings of this questionnaire indicated that they were reliable (alpha = .773).

Attribution Questionnaire. Participants were presented with a total of 27 questions in a questionnaire (modified from Ling, Mak, & Cheng, 2010) that measured their reactions to the vignette of a child (boy or girl). The questionnaire measured perceived controllability (three items; alpha = .84), feelings of anger (six items, alpha = .83), sympathy (six items, alpha = .73), helping behavioral intention (seven items, alpha = .86), and punitive behavioral intention (five items, alpha = .88). Sample items included "I think Lisa is fully responsible for her own behavior" and "I think Tom is difficult to teach". Each item was coded on a five-point Likert-type scale, ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). Some items were reverse scored in order to maintain consistency in values. Higher scores indicated more support for the category of questions being asked, with for example higher scores for "anger" indicated more anger towards the child in the vignette.

Demographics. Participants were asked to report their ethnicity / race, age, gender identity, gender assigned at birth, and gender they were raised as. Participant gender was analyzed as a supplemental variable in the results of the study.

Contact History. Participants were asked to respond to a questionnaire detailing their contact history with individuals with Autism Spectrum Disorder. Sample questions included "How often have you met a person with Autism Spectrum Disorder that you like?" and "How often have you worked with a person who has Autism Spectrum Disorder?". The data gathered from this questionnaire were analyzed as a supplemental dependent variable in the results.

Results

A total of five dependent variables were measured throughout the attribution

questionnaire, consisting of sympathy, helping behavioral intention, punitive behavioral

intention, perceived control, and anger. There were significant correlations found for several

of these variables, such that sympathy was significantly correlated with perceived control,

anger, and helping behavioral intention (see table 1). Helping behavioral intention was

significantly correlated with punitive behavioral intention, as well as with perceived

controllability and anger (see table 1). Perceived control was significantly correlated with

punitive behavioral intention and anger (see table 1). Finally, anger was significantly

correlated with punitive behavioral intention (see table 1).

Table 1

Correlations Among Contact History and Dependent Variables

	1.	2.	3.	4.	5.	6.
1. Contact History	--					
2. Sympathy	-.077	--				
3. Helping Behavioral Intention	.153*	-.305**	--			
4. Punitive Behavioral Intention	.207**	.113	-.237**	--		
5. Perceived Control	.186*	.173*	-.188**	.780**	--	
6. Anger	.158*	.266**	-.198**	.712**	.713**	--
M or %	2.26	2.90	3.97	3.04	2.98	3.14
SD	.852	.793	.708	1.00	.941	1.04

*Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the0.01 level (2-tailed).

For each dependent variable, I conducted a 2 (Target Gender: Boy vs. Girl) X 2

(Disability Status: ASD vs. No ASD) analysis of variance. Hypothesis 1 stated that children

with Autism Spectrum Disorder would experience more stigma when eliciting negative

behaviors. The ANOVA findings did not indicate support for this hypothesis, $F(1,62) =$

27.69, $p < .001$. However, when including Participant Gender (Men vs. Women) in the

model, several three-way interactions emerged. Therefore, the results presented here will focus on the 2 (Target Gender: Boy vs. Girl) X 2 (Disability Status: ASD vs. No ASD) x 2 (Participant Gender: Men vs. Women) interactions and main effects.

Sympathy. There was a marginally significant main effect of participant gender on sympathy, $F(1, 196) = 3.02$, $p = .084$. Specifically, women had higher levels of sympathy ($M = 3.01$, $SD = .727$) than men ($M = 2.80$, $SD = .842$) (see table 4). There was a marginally significant three-way interaction effect between Target Gender, Disability Status, and Participant Gender on sympathy, $F(1, 196) = 4.29$, $p < 0.05$ (see table 2). Specifically, it appears that men evaluated girls and boys with and without ASD similarly. But, women reported more sympathy for boys without ASD than with ASD. They also reported more sympathy for girls with ASD than girls without ASD (see figure 1). There were no significant two-way interactions.
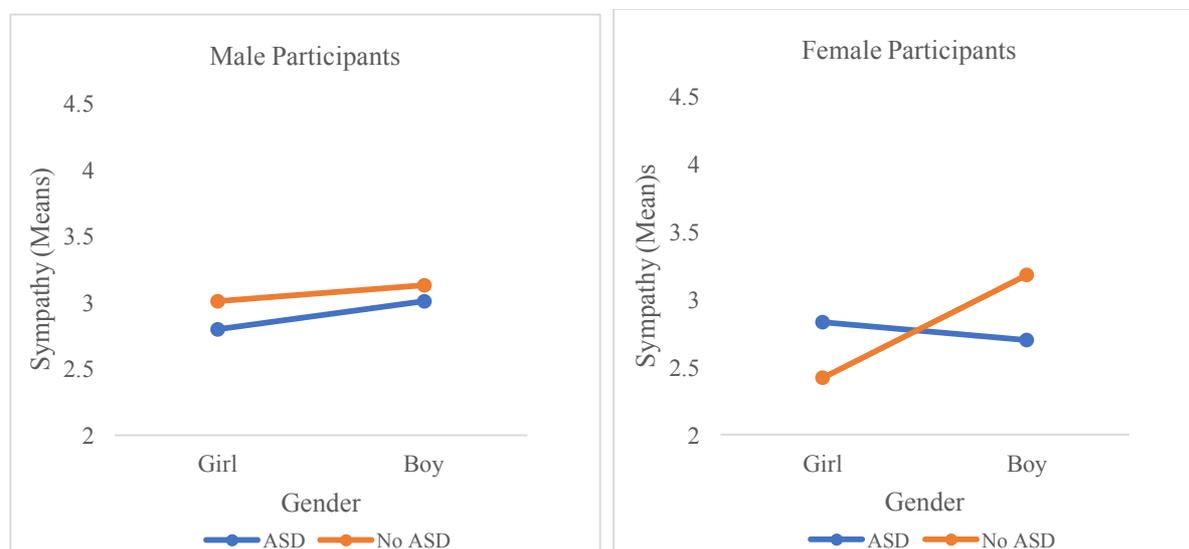

Figure 1. Left panel: mean levels of sympathy towards the child depicted in the vignette, as reported by male participants. Right panel: mean levels of sympathy towards the child depicted in the vignette, as reported by female participants.

Helping Behavioral Intention. There was a significant main effect for participant gender on helping behavioral intention, $F(1, 196) = 6.05$, $p = .015$. Specifically, women had higher levels of helping intention ($M = 4.06$, $SD = .655$) than men ($M = 3.89$, $SD = .749$) (see table 4). There was a significant three-way interaction effect between Target Gender, Disability Status, and Participant Gender on helping behavioral intention, $F(1, 196) = 6.85$, $p < 0.05$ (see table 2). Specifically, both men and women reported more helping intentions to girls without ASD than girls with ASD. Men and women also reported more helping intentions to boys with ASD than boys without ASD (see figure 2). There were no significant two-way interactions.
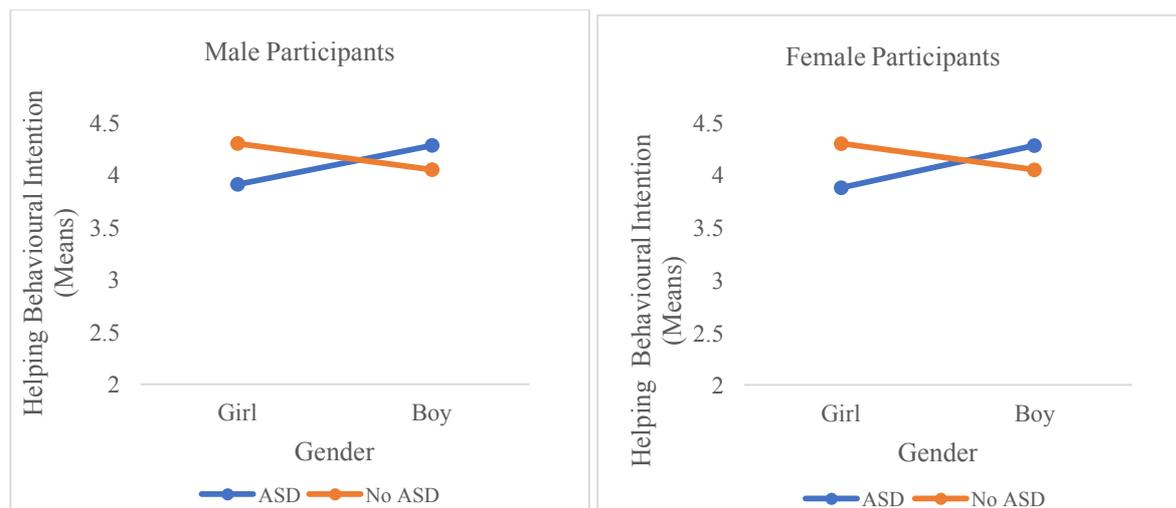

Figure 2. Left panel: mean levels of helping behavioral intention towards the child depicted in the vignette, as reported by male participants. Right panel: mean levels of helping behavioral intention towards the child depicted in the vignette, as reported by female participants.

Punitive Behavioral Intention. There was a significant main effect found for participant gender on punitive behavioral intention, F (1, 196) = 10.8, p = .001. Specifically, men responded with lower levels of punitive intention (M = 3.08, SD = .997) than women (M = 3.01, SD = 1.02) (see table 4). There was a significant three-way interaction between Target Gender, Disability Status, and Participant Gender on punitive behavioral intention, F (1, 196) = 10.8, p < .001. Specifically, men reported similar punitive intentions towards girls regardless of disability status, but more punitive intentions towards boys with ASD than to boys without ASD. Women reported more punitive intentions towards girls without ASD than to girls with ASD, and similar intentions towards boys regardless of disability status (see figure 3). There were no significant two-way interactions.
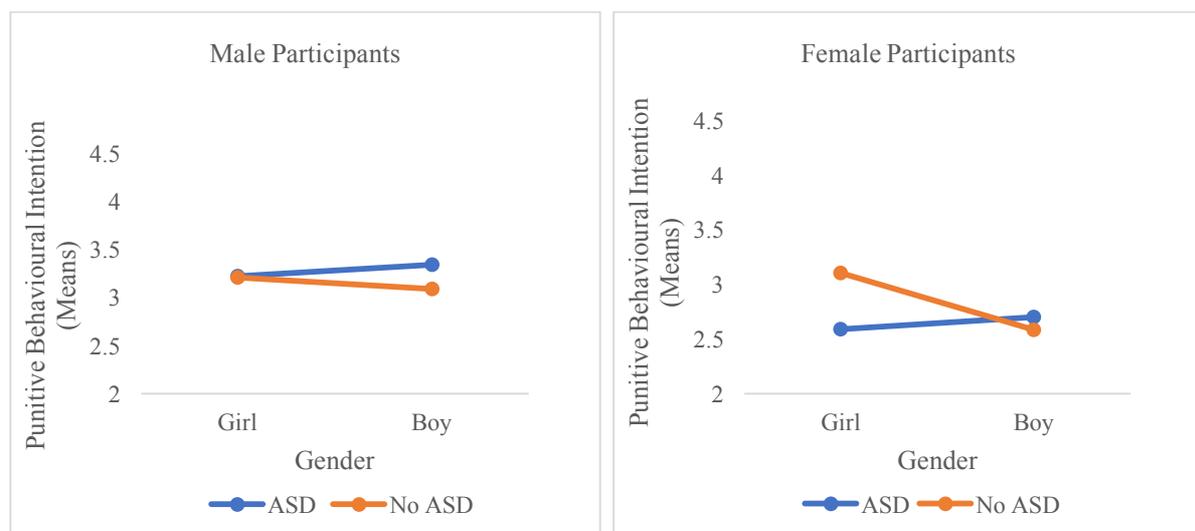

Figure 3. Left panel: mean levels of punitive behavioral intention towards the child depicted in the vignette, as reported by male participants. Right panel: mean levels of punitive behavioral intention towards the child depicted in the vignette, as reported by female participants.

Perceived Control. There was a significant main effect found for participant gender on perceived control, $F(1, 196) = 7.51$, $p < 0.05$. Specifically, men expressed higher levels of perceived control ($M = 3.18$, $SD = .917$) than women ($M = 3.10$, $SD = 1.05$) (see table 4). The main effects of target gender and disability status were not significant. There were no significant two-way interactions. Furthermore, there was no significant three-way interaction.
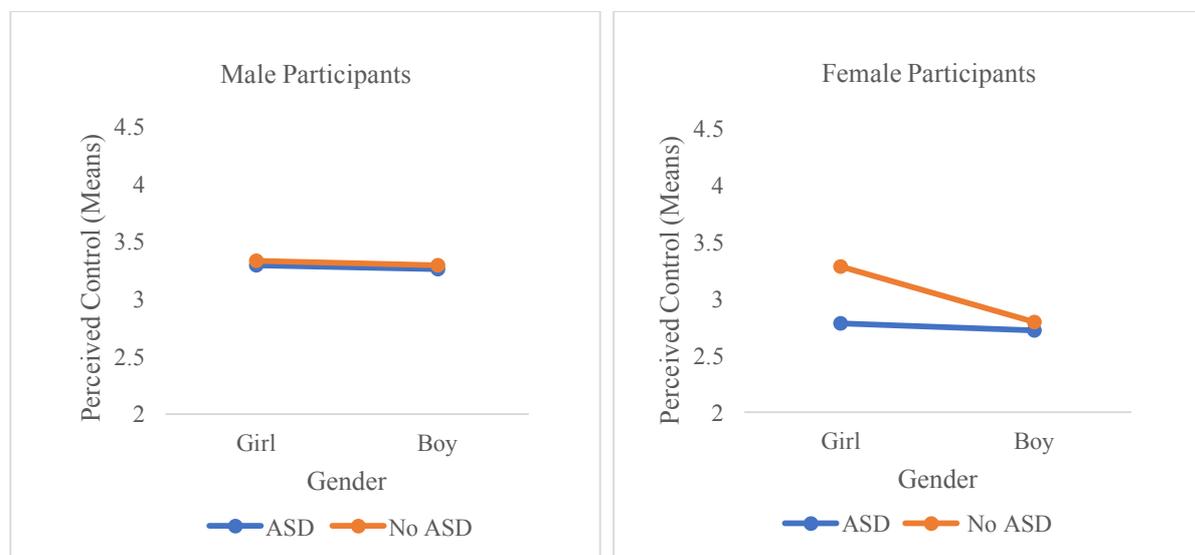

Figure 4. Left panel: mean levels of perceived control towards the child depicted in the vignette, as reported by male participants. Right panel: mean levels of perceived control towards the child depicted in the vignette, as reported by female participants.

Anger. There was a significant main effect for participant gender on anger, F (1, 196) = 4.63, $p < 0.05$. Specifically, men expressed more anger ($M = 3.02$, $SD = .881$) than women ($M = 2.94$, $SD = .986$) (see table 4). There was a marginally significant three-way interaction between Target Gender, Disability Status, and Participant Gender, F (1, 196) = 2.93, $p = .088$ (see table 2). Specifically, men had similar ratings of anger towards girls, regardless of disability status, and marginally more anger towards boys without ASD than boys with ASD. Women had higher ratings of anger towards girls without ASD than girls with ASD. However, women had higher ratings of anger towards boys with ASD than boys without ASD (see figure 5). The main effects of target gender and disability status were not significant. In addition, there were no significant two-way interactions.
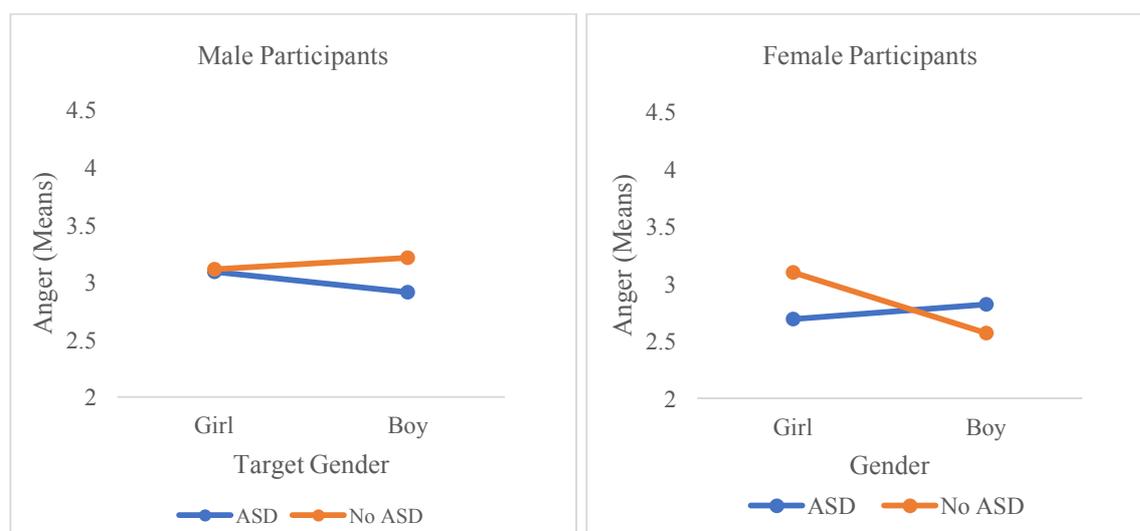

Figure 5. Left panel: mean levels of anger towards the child depicted in the vignette, as reported by male participants. Right panel: mean levels of anger towards the child depicted in the vignette, as reported by female participants.

Table 2

Tests of Between-Subjects Effects for Dependent Variables

Effect	df	F	P-value	Eta^2
Sympathy				
A. Target Gender	1	.635	.426	.003
B. Disability Status	1	.773	.380	.004
C. Participant Gender	1	4.63	.033*	.023
A x B	1	.568	.452	.003
A x C	1	.327	.568	.002
B x C	1	.103	.749	.001
A x B x C	1	2.93	.088	.015
Helping Behavioral Intention				
A. Target Gender	1	2.49	.116	.013
B. Disability Status	1	.003	.955	.000
C. Participant Gender	1	6.05	.015*	.030
A x B	1	.424	.516	.002
A x C	1	.586	.455	.003
B x C	1	.991	.321	.005
A x B x C	1	6.85	.010*	.034
Punitive Behavioral Intention				
A. Target Gender	1	.538	.464	.003
B. Disability Status	1	.062	.804	.000
C. Participant Gender	1	10.8	.001*	.052
A x B	1	2.42	.121	.012
A x C	1	.477	.490	.002
B x C	1	1.10	.296	.006
A x B x C	1	.551	.459	.003
Perceived Control				
A. Target Gender	1	.728	.394	.004
B. Disability Status	1	1.01	.314	.005
C. Participant gender	1	7.51	.007*	.037
A x B	1	.628	.429	.003
A x C	1	.788	.376	.004
B x C	1	.789	.376	.004
A x B x C	1	.540	.463	.003
Anger				
A. Target Gender	1	.635	.426	.003
B. Disability Status	1	.773	.380	.004
C. Participant Gender	1	4.63	.033*	.023
A x B	1	.568	.452	.003
A x C	1	.327	.568	.002
B x C	1	.103	.749	.001
A x B x C	1	2.93	.088	.015

* Correlation is significant at the 0.01 level (2-tailed).

The effect of contact history was significant at the 0.01 level for helping behavioral intention, $F (1, 196) = 4.44$, $p = .036$, punitive behavioral intention, $F (1, 196) = 8.97$, $p = .003$, perceived control, $F (1, 196) = 7.14$, $p = .008$, and anger, $F (1, 196) = 5.24$, $p = .023$,

(see table 3). Contact history was only marginally significant for sympathy, $F(1, 196) = 1.30$, $p = .255$ (see table 3). Contact history was significantly correlated with helping behavioral intention, perceived control, and anger at the 0.05 level (see table 1). In addition, contact history was also significantly correlated with punitive behavioral intention at the 0.01 level (see table 1).

Table 3

Tests of Between-Subjects Effects Among Contact History and Dependent Variables

Effect	df	F	P-value	Eta^2
Contact				
Sympathy	1	1.30	.255	.007
Helping Behavioral Intention	1	4.44	.036*	.022
Punitive Behavioral Intention	1	8.97	.003*	.044
Perceived Control	1	7.14	.008*	.035
Anger	1	5.24	.023*	.026

*. Correlation is significant at the 0.01 level (2-tailed).

Table 4

Means and Standard Deviations of Participant Gender Among Dependent Variables.

Effect	Mean	SD
Men		
Contact	2.21	.881
Sympathy	2.80	.842
Helping Behavioral Intention	3.89	.749
Punitive Behavioral Intention	3.08	.997
Perceived Control	3.18	1.04
Anger	3.02	.917
Women		
Contact	2.31	.822
Sympathy	3.01	.727
Helping Behavioral Intention	4.06	.655
Punitive Behavioral Intention	3.01	1.02
Perceived Control	3.10	1.05
Anger	2.94	.968

Discussion

The current study aimed to further our understanding of the underlying causes of stigma directed towards children diagnosed with Autism Spectrum Disorder. The aim was to focus specifically on the stigmatization of children within a classroom setting and how the gender of the child can influence this. The educational focus of the study was chosen because the classroom is a space in which children spend a significant amount of time, having an impact on their overall life and wellbeing. First, it was hypothesized that children diagnosed with Autism Spectrum Disorder would experience more stigma when eliciting negative behaviors than children without such a diagnosis would. Secondly, it was hypothesized that gender would be significant such that boys would experience more stigma than girls for misbehaving. Thirdly, it was hypothesized that there would be an interaction between disability status and gender. Specifically, that boys with Autism would be the group most stigmatized against out of the four groups in the study, in part due to their diagnosis and in part due to their gender. Participant gender and contact history were also analyzed as supplemental variables. The three main hypotheses of the current study did not yield significant results, and as such were not supported by the data gathered. However, the study did yield significant three-way interactions between Target Gender, Disability Status, and Participant Gender for helping behavioral intention, and punitive behavioral intention.

Participant gender was measured as a supplemental variable in the current study but was not included in any of the three initial hypotheses. There was not an equal breakdown of men and women, with a total of 128 men (62.7%) and 76 women (37.3%) taking part in the study. This was an element that could not be controlled for when using Amazon's Mechanical Turk to recruit participants. Given that participant gender could not be controlled for, and because literature regarding gender differences was relatively weak in this field, it was decided that participant gender would not be included as a main focus, but rather

analyzed as a supplemental variable. Participant gender was found to be significant for

helping behavioral intention, punitive behavioral intention, perceived control, and anger. It

was found to be marginally significant for sympathy. The current research did not find

significant differences in sympathy between men and women, which is not fully in line with

previous research (Christov-Moore et al., 2014). While the stereotype that women are more

compassionate maybe true in some situations, it should be noted that this is a generalization

and that individual personality differences, regardless of gender, can also come into play.

However, the lack of gender differences found can also strengthen the view that there may be

fewer differences between men and women than we assume. A practical implication of this

lies within the field of education, where the majority of teachers and special education

teachers are made up of women. This indicates that stigmatizing attitudes towards a child

with Autism may differ depending on the gender of the viewer and not the gender of the

subject. Although some research suggests that women are more sympathetic, (Christov-

Moore et al., 2014), this study did not find significant gender differences for sympathy. This

may be cause for expanding the field of special education to more men instead of seeing it as

a field for women.

Contact history was analyzed as a supplemental variable, and was found to be

significantly correlated with helping behavioral intention, punitive behavioral intention,

perceived control, and anger. The significance of contact history in this study indicates that

those who have had prior contact with individuals with Autism have less stigmatizing

thoughts and feelings towards them, which is in line with other research (Allport, 1954).

Specifically, women had increased contact history with people with Autism ($M = 2.31$, $SD =$

.822) than men ($M = 2.21$, $SD = .881$) in this study. This could be a potential explanation for

why women had marginally more sympathy ($M = 3.01$, $SD = .727$) for children with Autism

than men did ($M = 2.80$, $SD = .842$). Much of the research on effective methods of reducing

stigma towards oppressed or minority groups focuses on the method of contact. Early reviews

analyzing contact found positive attitude changes to occur after close personal or social

contact with an individual with a disability (Yuker & Hurley, 1987). These findings support

prior research that also indicates that contact, whether it be extended contact or close personal

contact, leaves people with more positive attitudes towards a minority group given that

certain criteria are fulfilled (Allport, 1954).

The results of the dependent variable "sympathy" found a marginal significant main

effect for participant gender, such that men had slightly less sympathy for girls than they did

for boys, regardless of disability status. Women had slightly less sympathy for girls without

Autism than for girls with Autism, whereas they had less sympathy for boys with Autism

than for boys without Autism. Although results were only marginally significant, this points

towards the broader view that women are more sympathetic than men. However, women still

showed a slight prejudice towards boys with Autism. The results of the dependent variable

'helping behavioral intention' found a significant main effect for participant gender, such that

both men and women had a higher desire to help girls without Autism than girls with Autism,

and a higher desire to help boys without Autism than boys with Autism. These results

indicate increased prejudice towards children with Autism regardless of gender due to a

decreased desire to help them. The results of the dependent variable 'punitive behavioral

intention' found a significant main effect for participant gender. Men had an equal desire to

punish girls regardless of disability status, but less of a desire to punish boys without Autism

compared to boys with Autism. The results of the dependent variable 'perceived control'

found a main effect for participant gender. Men rated the perceived control of girls and boys

the same, regardless of disability status, whereas women rated the perceived control of both

boys and girls without Autism as higher than both boys and girls with Autism. Women

showed decreased prejudice for this variable by accurately rating the children with Autism as

having less control over their actions, therefore attributing them to the disorder. Lastly, the results of the dependent variable 'anger' also found a significant main effect for participant gender. Men had similar levels of anger towards girls regardless of disability status, but had more anger towards boys without Autism as compared to boys with Autism. Women, however, had more anger towards girls without Autism than girls with Autism, yet more anger towards boys with Autism than boys without Autism. Men overall showed less prejudice towards girls than boys, with the highest ratings of anger directed at boys without Autism. The participants here may not explicitly agree with discriminatory practices even though their judgements demonstrate subtle levels of discrimination between the different groups (Greenwald et al., 1995). The second hypothesis predicted that boys would be more stigmatized against than girls due to societal gender norms. However, the findings did not indicate such a result. Perhaps the results gathered found less stigma towards boys because there is the expectation that boys will misbehave and girls will behave, leading people not to discriminate against a misbehaving boy because he is in line with the gender norm. However, a girl misbehaving may consequently be judged more harshly because we have higher expectations for good behavior among girls.

A question that requires further exploration is the level of external reliability in the results of the current study. For example, men's levels of perceived control were relatively similar regardless of the child's gender or disability status. This indicates a lack of discrimination between children with or without Autism, which is seemingly positive. However, the challenge in concluding that they did not display prejudice towards the different children comes when translating these results into real life situations. It is worth noting that they may in fact act discriminatory towards children with Autism when faced with such a situation, but not when they are in a hypothetical situation. Future research may want to consider looking more closely at how men vs. women view and treat children with Autism

compared to how they treat children without a diagnosis. However, it is imperative that the focus not be to reinforce negative stereotypes regarding men and women, but rather to use gender in a positive way to implement more effective stigma reduction programs. Another factor that may play into the stigmatization of a child with Autism is race. An estimated 1 in 68 children have Autism, with an equal prevalence across different racial groups (National Institute of Neurological Disorders and Stroke, 2015). Although the current study opted not to measure race explicitly, this would add valuable knowledge to a growing body of research. However, race likely has more significance if the subject is not of a majority race seeing as how there is prejudice and racism directed at these groups regardless of disability status. The already prevalent stigma towards people of colour may then be compounded with the stigma experienced because of the disorder. The current study could be modified in order to incorporate race to add a valuable perspective to this issue.

In order to reduce stigma, we must understand how it operates, where it comes from, and what reduction methods are the most effective. Stigmas manifest themselves in rigid ideas of what a person "should be" and letting negative affective responses take place when a person does not fit that mold. Stigma is prevalent in many different forms and can be applied to a multitude of minority or oppressed groups and individuals. In terms of the current study, it was partly this prevalence that strengthened the motivation behind devoting more research to stigma, and specifically stigma felt by children with Autism. Autism is a chronic illness with no real cure, other than therapies and interventions that can improve the lived experience of the diagnosed individual. The lives of people with Autism can be significantly impacted by societal stigmas perpetuated by friends and family, or even educational professionals. The current study aimed to gather a deeper understanding of the kinds of behaviors people do or do not elicit when there is a presence of stigma. Even though we cannot rid someone of this

disorder, we can improve their quality of life by understanding the ways in which Autism

manifests itself and reducing the stigma directed at these individuals.

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Appendix A

Vignettes

Condition 1: Girl, with ASD

Lisa is a 10-year-old 4th grader who is diagnosed with Autism Spectrum Disorder. She rarely approaches and talks to unfamiliar people at school. In one incident, a math quiz originally scheduled on a Friday was postponed to the following week as the Math teacher was sick and did not come to work. A substitute teacher was sent to look after the class and students were asked to study on their own. Lisa suddenly cried and yelled vigorously in class. Since she cried and yelled so loudly, and disturbed other students, the substitute teacher came up to her and asked her to be quiet. Lisa shoved the teacher around and kicked in protest. Consequently, the teacher went out of the classroom and asked a disciplinary teacher for help.

Condition 2: Girl, no ASD

Lisa is a 10-year-old 4th grader who rarely approaches and talks to unfamiliar people at school. In one incident, a math quiz originally scheduled on a Friday was postponed to the following week as the Math teacher was sick and did not come to work. A substitute teacher was sent to look after the class and students were asked to study on their own. Lisa suddenly cried and yelled vigorously in class. Since she cried and yelled so loudly, and disturbed other students, the substitute teacher came up to her and asked her to be quiet. Lisa shoved the teacher around and kicked in protest. Consequently, the teacher went out of the classroom and asked a disciplinary teacher for help.

Condition 3: Boy, with ASD

Tom is a 10-year-old 4th grader who is diagnosed with Autism Spectrum Disorder. He rarely approaches and talks to unfamiliar people at school. In one incident, a math quiz originally scheduled on a Friday was postponed to the following week as the Math teacher was sick and did not come to work. A substitute teacher was sent to look after the class and students were asked to study on their own. Tom suddenly cried and yelled vigorously in class. Since he cried and yelled so loudly and disturbed other students, the substitute teacher came up to him and asked him to be quiet. Tom shoved the teacher around and kicked in protest. Consequently, the teacher went out of the classroom and asked a disciplinary teacher for help.

Condition 4: Boy, no ASD

Tom is a 10-year-old 4th who rarely approaches and talks to unfamiliar people at school. In one incident, a math quiz originally scheduled on a Friday was postponed to the following week as the Math teacher was sick and did not come to work. A substitute teacher was sent to look after the class and students were asked to study on their own. Tom suddenly cried and yelled vigorously in class. Since he cried and yelled so loudly and disturbed other students, the substitute teacher came up to him and asked him to be quiet. Tom shoved the teacher around and kicked in protest. Consequently, the teacher went out of the classroom and asked a disciplinary teacher for help.

Appendix B

Trait Ratings

Based on the child you just viewed and read about, please rate them on the following dimensions:

Intelligent   *1*   *2*   *3*   *4*   *5*   *Unintelligent*

Friendly   *1*   *2*   *3*   *4*   *5*   *Unfriendly*

Shy   *1*   *2*   *3*   *4*   *5*   *Outgoing*

Independent   *1*   *2*   *3*   *4*   *5*   *Dependent*

Honest   *1*   *2*   *3*   *4*   *5*   *Dishonest*

Attractive   *1*   *2*   *3*   *4*   *5*   *Unattractive*

Appendix C

Attribution Questionnaire

Sympathy

1. I am sympathetic towards (name).

2. I think (name's) reaction in this incident is understandable.

3. I feel sorry for (name).

4. I understand why (name) behaves this way in this situation.

5. I think we should care for (name) when he behaves this way.

Helping Behavioral Intention

1. If I were (name's) teacher, I would be willing to counsel them.

2. If I were (name's) teacher, I would be willing to proactively guide them on the right track.

3. If I were (name's) teacher, I would be willing to learn more about their background to understand their actions.

4. If I were (name's) teacher, I would be willing to learn more about Autism.

5. If I were (name's) teacher, I would seek help for them.

6. I think I can help (name) improve their behavior.

Punitive Behavioral Intention

1. I think (name) seriously misbehaved during the incident and that the school should punish them.

2. If (name) was a student at my school, I wouldn't want to continue teaching them.

3. If I were (name's) teacher, I think punishment would be the only way to stop their behavior.

4. I think (name) is difficult to teach.

5. If I were the substitute teacher, I would ask the school to punish (name).

6. If (name) was a student at my school, I would not be willing to provide extra counselling to them outside the classroom.

Perceived Control

1. I think (name) should have control over their challenging behavior.

2. I think (name) is fully responsible for their own behavior.

3. I do not think (name) is to be blamed for the incident.

4. I think (name) is innocent.

5. I think (name) intentionally created the problem.

Anger

1. I think (name) is a troublemaker in class.

2. (name's) behavior makes me angry.

3. I dislike (name's) behavior.

4. I dislike (name) because of this incident.

5. In light of this incident, I think (name) is a disobedient student.

6. I do not think (name) was in their right mind during this incident.

Appendix D

Contact History

1. How often have you had a long talk with a person who has Autism Spectrum Disorder?

2. how often have you had a brief conversation with a person who has Autism Spectrum Disorder?

3. How often have you worked with a person who has Autism Spectrum Disorder?

4. How often have you met a person with Autism Spectrum Disorder whom you like?

5. How often have you met a person with Autism Spectrum Disorder whom you feel sorry for?

6. How often have you had pleasant experiences interacting with people who have Autism Spectrum Disorder?

7. How often have you had unpleasant experiences interacting with people who have Autism Spectrum Disorder?