

“Even though we all are different, we’re all pretty much the same”: An Inquiry into
Representations of Autism in Children’s Fictional Television Programming

Sundus Waheed

A Thesis in the Department of Education

Presented in Partial Fulfillment of the Requirements for the Degree of Master of Arts (Child
Studies) at Concordia University

April 2018

© Sundus Waheed, 2018

CONCORDIA UNIVERSITY

School of Graduate Studies

This is to certify that the thesis prepared

By: Sundus Waheed

Entitled: “*Even though we all are different, we’re all pretty much the same*”: An Inquiry
into Representations of Autism in Children’s Fictional Television Programming

and submitted in partial fulfillment of the requirements for the degree of

Master of Arts (Child Studies)

complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Signed by the final Examining Committee:

_____ Chair

Dr. Harriet (Hariclia) Petrakos

_____ Examiner

Dr. Miranda D’Amico

_____ Examiner

Dr. Diane Pesco

_____ Supervisor

Dr. Sandra Chang-Kredl

Approved by _____

Interim Chair of Department

_____ 2018

Dean of Faculty

Abstract

This qualitative study examines portrayals of autism in children’s television programming by analyzing three television programs – *Sesame Street*, *Mack and Moxy*, and *Arthur* – in terms of the race and gender of the character with autism, the symptoms and personality characteristics exhibited by the character with autism, the setting the character with autism is situated in, the roles of the supporting characters, and the main themes emphasized in the episodes. A critical analysis pertaining to the above-mentioned categories, as well as a brief comparison of research conducted on portrayals of autism in children’s fictional picture books with portrayals in the present sample, will be offered. The examined programs were found to be successful in representing a variety of symptoms portrayed by the characters with autism and included the more challenging aspects of autism, such as meltdowns, in response to hyper-reactivity. The main themes extracted from the episodes included the ideas of acceptance, diversity, and friendship. The researcher concluded that future depictions of characters with autism should include more female characters as well as characters belonging to various races and ethnicities. While research exploring portrayals of autism in television and film targeting teenage to adult audiences exists, this study fills the gap in research by examining portrayals of autism exclusively in children’s television programming. This research has implications for future television content creators, parents, and educators.

Acknowledgements

Above all, I would like to thank God Almighty for giving me the opportunity to pursue a path I am greatly passionate about and for giving me the strength and endurance to work on a project of this caliber.

Thank you Dr. Sandra Chang-Kredl for your continuous support and encouragement throughout this process. Your kindness, patience, and encouragement gave me the confidence to keep moving forward and allowed me to bring my ideas to fruition. Your professionalism and humility will forever be a source of inspiration for me and I will cherish the memories of these past years spent working with you. From the bottom of my heart, thank you.

Thank you Dr. Miranda D'Amico and Dr. Diane Pesco for your feedback and expertise which helped develop this study.

This wouldn't have been possible without my mother and father who encouraged me to pursue graduate studies and provided me endless support. Thank you to my siblings and brothers-in-law for continuously motivating me and believing in my abilities. Thank you to my nephews Yusha and the love of my life Musa for providing stress-relief whenever I needed it. To Musa: You have unknowingly made this journey so much easier and there are absolutely no words to describe how much I love you.

Last but certainly not least I would like to thank all the children I have worked with throughout the years for being the reason why I decided to pursue this study. You have helped me grow as a person and have allowed me to see the world through your eyes.

Table of Contents

List of Tables	viii
List of Figures	ix
List of Appendices	x
Introduction	11
Importance of Autism Awareness	14
Fiction as a Tool for Raising Awareness	16
Research on Picture Books and Autism Awareness.....	17
Autism in Children’s Picture Books	19
Research on Popular Media and Autism Awareness.....	23
Present Study	27
Methods	28
List of Television Programs Analyzed.....	29
Data Analysis	30
Findings and Analysis	34
<i>Sesame Street</i>	34
<i>Mack and Moxy</i>	47
<i>Arthur</i>	55
Discussion	64
Physical Appearance of Character with Autism	66
DSM V Criteria for ASD	69
Personality Characteristics	70
Setting	71

Supporting Characters	72
Main Themes	76
Explanation of Autism	77
Conclusion	79
Limitations	80
Future Directions	81
Educational Implications	81
References	82
Appendix A	90
Appendix B	95
Appendix C	101

List of Tables

Table 1: List of Television Programs Analyzed.....	29
Table 2: Symptoms of Autism Spectrum Disorder in the DSM V.....	31
Table 3: Sample of Coding Scheme.....	32

List of Figures

Figure 1: Julia.....	36
Figure 2: Trooper Charlie and Little Bird.....	49
Figure 3: Carl.....	57

List of Appendices

Appendix A: Data and Coding: “Sesame Street”	92
Appendix B: Data and Coding: “Mack and Moxy”	99
Appendix C: Data and Coding: “Arthur”	104

Introduction

The aim of this present study is to critically examine portrayals of autism in children's television programming, with the purpose of addressing the societal need to raise awareness of autism through varied and respectful representations. Autism spectrum disorder is a developmental disorder in which individuals diagnosed with this condition present symptoms such as deficits in social communication and social interaction, and stereotyped and/or repetitive behaviours, actions or interests (Bolkan & Gordon, 2016). The prevalence of autism is increasing and, according to the latest statistic from the Centers for Disease Control and Prevention (2016), 1 in 68 children are diagnosed worldwide.

The increase in prevalence rates of autism has great implications for the education system as schools are increasingly introducing inclusive classrooms in which both students with and without autism are joined in one setting for a shared learning experience (Artman-Meeker, Grant, & Yang, 2016; Ayala, 1999; Beecher & Darragh, 2011; Kurtts & Gavigan, 2008; Sigmon, Tackett, & Azano, 2016). The push towards inclusivity in general education classrooms increases the likelihood of typically-developing children encountering a child with autism. Children with autism may exhibit different learning and/or behavioural traits compared to typically-developing children (Schipul & Just, 2016) and, for this reason, typically-developing children who do not have basic knowledge or awareness of this disorder may feel overwhelmed or confused in these inclusive settings. Indeed, it is essential for typically-developing children, parents, teachers and educators, and society as a whole to have, at minimum, a basic understanding of autism. A positive school environment, in which a child with autism is accepted, understood, and respected, is critical for his or her integration in an inclusive setting (Falkmer, Anderson, Joosten, & Falkmer, 2015).

Researcher's Personal Statement

In my own work as a special needs educator for children with autism, there were times in which I witnessed confusion regarding my students' behaviours by typically-developing children. Some of the atypical behaviours which my students, who were all diagnosed with low-functioning autism, displayed in the presence of typically-developing children included: being unable to maintain appropriate social distance with other children, making incomprehensible sounds in a loud tone, engaging in repetitive movements, and being unable to self-regulate in moments of anger resulting in aggressive and sometimes violent behaviour. Understandably, these behaviours may have been unfamiliar to typically-developing children which may explain why they appeared to be uncomfortable around the students diagnosed with autism. The responses of the typically-developing children included: staring at the children with autism, displaying an anxious facial expression, and discussing the behaviours of the students with autism with their peers. In addition, working in inclusive settings, which included children diagnosed with high-functioning autism and typically-developing children, has garnered similar experiences in which I witnessed confusion on the part of the typically-developing children. Certain behaviours exhibited by some students with autism, such as repetitive movements and utterances and meltdowns, invoked confused responses by typically-developing children. This, at times, resulted in feelings of inadequacy, low self-esteem, and isolation for some of the students with autism.

Due to these personal experiences, I feel there is a strong need to provide easily-accessible and respectful exposure about autism to typically-developing children in a safe and comfortable environment. Research, which will be highlighted shortly, has shown television to be a highly effective and influential tool in spreading knowledge surrounding a variety of topics.

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

In recent years, a promising advancement in autism awareness has been the introduction of characters with autism in children's television programming. The present study will therefore analyze fictional representations of autism in three children's television programs.

Potential Contributions

To date, research evaluating portrayals of autism in the media has focused on television shows and films targeting an adult audience. This study can fill the gap in the research by critically evaluating portrayals of autism on *children's* television programming, an area of research that is currently non-existent. As noted, typically-developing children are likely to encounter a child with autism in schools, parks, or other social settings, thus making it crucial for them to have, at minimum, basic knowledge of autism.

This study will identify strengths and weaknesses of the representations of autism on children's television programming and can inform future content creators regarding the best way to approach these portrayals. Due to the fact that children with autism can have varying profiles from one another, this study will, in addition, examine the variety of these portrayals. Furthermore, this study can hopefully encourage more autism representations on children's television programming in the future and stress the importance of spreading respectful information and awareness amongst typically-developing children.

Review of the Literature

Importance of Autism Awareness

In recent times, autism has been gaining more public attention. There have been many initiatives that have been brought forth in order to spread awareness about autism. Autism Speaks, founded in 2005, is one such organization that launches various campaigns aimed at the public to promote autism awareness and acceptance in addition to funding autism research (Singh, Hallmayer, & Illes, 2007). In addition, April 2nd was established as World Autism Awareness Day by the United Nations (DeVibiss & Lee, 2014). As part of the Light it Up Blue Campaign, on this day, individuals are encouraged to wear blue to promote autism awareness and acceptance (Speaks, 2011). Finally, in the United States, April has been adopted as "Autism Awareness Month" (Devilbiss & Lee, 2014).

Although it is uplifting to see the many initiatives promoting autism awareness in recent years, further attention is required to address the needs of the many individuals with autism who face challenges integrating into society due to negative treatment by typically-developing individuals. Indeed, while children without special needs can be subjected to bullying by their peers (Smith & Brain, 2000), children on the autism spectrum are particularly vulnerable to being bullied (Ostrosky, Mouzourou, Dorsey, Faavazza, & Leboeuf, 2015; Sciutto, Richwine, Mentrikoski, & Niedzwiecki, 2012). This could be due to the fact that social vulnerability and behaviour problems, two characteristics which many children with autism possess, are key risk factors for subjection to bullying (Hebron, Humphrey, & Oldfield, 2015). A qualitative study conducted in England revealed that receiving support from peers is the most important way to reduce the frequency of bullying targeted towards students with autism (Humphrey & Symes, 2010).

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

In one study, when asked about the potential cause of their children with autism being subjected to bullying in school, mothers suggested a lack of understanding and awareness about autism (Cook et al., 2016). Children with autism in inclusive settings are shown to be at a higher risk of experiencing bullying compared to students in a specialized setting comprised solely of other children with special needs (Cook, Ogden, & Winstone, 2016; Rowley et al., 2012; Zablotzky, Bradshaw, Anderson, & Law, 2013). In addition, Humphrey and Symes (2010) found that children with autism in inclusive settings experienced “lower centrality, acceptance, companionship, and reciprocity in their peer relationships than typically-developing children” (p. 88). Schools often aim their interventions towards children with autism, however it is equally important that interventions be aimed at teaching staff and peers regarding the encouragement of accepting diversity (Hebron et al., 2015). In addition, particular circumstances in inclusive settings appear to increase victimization for children diagnosed with autism. For instance, physical education classes appear to highlight difficulties in the sensory, social, and physical domains, which consequently leads to increased bullying (Healy, Judge, Block, & Kwon, 2014).

In Los Angeles, the impact of peers in inclusive settings is reflected through the creation of the “Circle of Friends” program which was developed by Barbara Palilis as part of the Community Partners organization (Barrett & Randall, 2004). This program is aimed at enhancing the experiences of children with autism in inclusive settings by encouraging typically-developing peers to support their classmates who are on the autism spectrum (Kalyva & Avramidis, 2005). Supportive interaction and intervention between children with and without autism has been shown to improve communication (Kalyva & Avramidis, 2005) and social skills (Kalyva & Avramidis, 2005; O'Connor, 2016) for the child with autism. Not only was this program shown to be beneficial for children with autism, the attitudes of typically-developing peers was altered

following the intervention in that their view of autism was less stigmatizing (Frederickson & Turner, 2003; O'Connor, 2016). This approach highlights the critical role that the peer group plays in child with autism's life.

The need for raising awareness about autism amongst typically-developing children is vital. An increase in autism awareness, and an understanding of the different symptoms that children with autism possess, can potentially lead to a more accepting and non-threatening environment for those children on the autism spectrum.

Fiction as a Tool for Raising Awareness

It is vital that children be introduced to autism in a compelling, informative, and safe manner (Sigmon et al., 2016). Although awareness can be brought forth in many ways, fictional narratives can be an effective means of exposing children to sensitive topics in accessible ways. Indeed, although attitudes about disabilities can be shaped by direct experiences with individuals with disabilities, for many individuals who have never been in contact with people with disabilities, their perceptions regarding disabilities can be influenced by indirect sources such as books and television shows (Favazza et al., 2015). Children's picture books and children's media, such as television programming, have been shown to influence children's thoughts on a variety of issues (Belcher & Maich, 2014). Television programming, too, is an effective tool in conveying thoughts, ideas, and concepts to a vast audience. Film and television are considered more realistic in terms of their representation of characters and, similar to picture books, television and films have the potential to emotionally connect the viewer with what they are watching, making audiences perceive some representations on television to be a direct reflection of "real life" (Hodge & Tripp, 1986). In terms of television programs aimed at young children, educational programming in particular is thought to be an important tool for children's informal

learning, provided that the programs promote academic achievement and/or prosocial behaviour (Anderson, Lavigne, & Hanson, 2013). Of interest to this present study, Young (2012) has stated that visual representations of disabilities in movies and television are more impactful on audiences than spreading disability awareness through research (Belcher & Maich, 2014).

In terms of studies that address the use of fiction to raise awareness about autism among typically-developing children, the focus of research to date has been on picture books that feature characters with autism. As such, I will review the studies on picture books and autism awareness to provide a basis and groundwork for my proposed research into the role of children's television in raising autism awareness.

Research on picture books and autism awareness. Picture books provide readers with an opportunity to increase their knowledge about unfamiliar events and/or people by indirectly taking them on a journey to experience situations which they otherwise may have not had a chance to experience (Ganea, Pickard, & DeLoache, 2008). One of the many reasons why using books as a means of spreading awareness is effective is the fact that readers become emotionally involved with what they are reading (Beecher & Darragh, 2011; Harper, 2016; Kelley, Cardon, & Algeo-Nichols, 2015). This emotional connection is important as it can increase empathy (Kelley et al., 2015), and may contribute to changing typically-developing children's attitudes and behaviours towards children with autism in a positive manner. The texts can help typically-developing children get a sense of what it may feel like to have autism spectrum disorder, thus making them more sensitive when interacting with children with autism. This increase in empathy is a key outcome which many children experience after having read children's fictional literature regarding disabilities (Beecher & Darragh, 2011).

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

This increase in empathy is important as when individuals are emotionally engaged with what they are reading, they will process the information more effectively (Beecher & Darragh, 2011). Thus, if a fictional picture book depicting a character with autism has the capacity to build an emotional connection between the character with autism and the reader, the reader may internalize relevant lessons from the story regarding autism spectrum disorder. This may alter the reader's perceptions about autism and compel the reader to be mindful of how he or she behaves with children with autism in real life. In addition to empathy, picture books can increase conflict resolution skills and foster general moral development (Harper, 2016). This implies that if a picture book about autism provides the reader with practical solutions to challenges they may face, such as witnessing atypical behaviours, children can apply these solutions in real-life.

Children's literature is particularly beneficial in raising awareness for sensitive topics (Kurtts, 2008). In classrooms, teachers can help students become more understanding and accepting of themselves and of other children through the use of fictional literature (Artman-Meeker et al., 2015; Sigmon et al., 2016). For example, picture books have been shown to expose children to the idea of diversity (Meyer et al., 2016). Thus, using picture books about autism as a means to spread awareness about the disorder can be valuable in classrooms as this may not only expose children to autism, but may also facilitate crucial discussions about autism between teachers and students.

In addition to benefiting non-special needs children, fictional picture books about disabled characters have also been shown to benefit children with disabilities (Beecher & Darragh, 2001; Kurtts, 2008). Children with special needs whose teachers have read and discussed characters with disabilities were reported to have various positive outcomes including

improved positive affect, increased social skills, and increased self-efficacy and self-acceptance (Kurtts, 2008).

Finally, children's literature is not limited to benefiting children. In fact, teachers have also been shown to have an increase in knowledge and understanding about autism after having read fictional children's books regarding the subject (Beecher & Darragh, 2011; Kurtts, 2008). While pre-service teachers have been shown to have false information regarding autism, many of them reported that, after having read fictional picture books, they were more at ease discussing the disorder and felt that they would be able to apply what they read to their future work in the classroom (Beecher & Darragh, 2011). Teachers also acknowledged that, after having being exposed to nonfictional picture books about autism, they felt more open about discussing the topic of disabilities within their classrooms (Ostrosky et al., 2015).

Autism in Children's Picture Books. Researchers have examined autism in children's picture books in varying ways by analyzing and evaluating these books to identify strengths and weaknesses in their content. Different criteria were examined and some common themes have been identified across an array of studies. Belcher and Maich (2010) examined eight aspects in children's fictional books about autism: the values promoted in the book, literary features and writing style, social setting, issues raised in the book, the representation of the child, cultural context, labels used in the book, and author information. Kelley, Cardon, & Algeo-Nichols (2015) analyzed symptomology (as listed in the DSM-IV) represented in autism picture books. Dyches, Prater, & Heath (2010) examined Newbery Award winning books which featured characters with disabilities in general.

Many studies have sought to analyze autism in children's books for the purpose of providing recommendations for classroom teachers (Gaffney & Wilkins, 2016; Maich &

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

Belcher, 2012; Sigmon et al., 2016). Sigmon et al. (2016), for instance, advocate the use of autism picture books as resources in the classroom and provide guidelines on how to use the picture books as a means of promoting various discussions surrounding autism in the classroom. Gaffney and Wilkins (2016) examined visual and literary content and accuracy of portrayals of autism in picture books in order to recommend the “best” autism picture books to classroom teachers. Across these studies, authors identified similar themes across the picture books, however new trends have also been discovered. These themes and trends will be discussed.

In terms of *symptomology*, the symptoms of autism play a large role in fictional picture books. In fact, it has been noted that many fictional children's books about autism tend to focus on the child's characteristics and symptoms rather than focusing on the plot of the story and character development (Gaffney & Wilkins, 2016; Maich & Belcher, 2012). A trend in fictional picture books about autism is the emphasis of certain symptoms over others. Kelley et al. (2015) examined the following 15 picture books: *Andy and his Yellow Frisbee* (Mary Thompson, 1996), *Ian's Walk* (Laurie Lears, 1998), *Looking After Louis* (Lesley Elly, 2004), *Keisha's Doors* (Marvie Ellis, 2005), *Tacos Anyone?* (Barbara Jordan, 2005), *Understanding Sam and Asperger Syndrome* (Clarabelle van Niekerk, 2006), *Waiting for Benjamin* (Alexandra Jessup Altman, 2008), *A Friend like Simon* (Kate Gaynor, 2008), *Pedro's Whale* (Patrick Shwarz & Paula Kluth, 2010), *My Brother Charlie* (Holly Robinson Peete & Ryan Elizabeth Peete, 2010), *My Brother Sammy* (Becky Edwards, 2011), *I'm Here* (Peter H. Reynolds, 2011), *Apples for Cheyenne* (Elizabeth K. Gerlach, 2012), *Since We're Friends* (Celeste Shally, 2012), and *Oliver* (Birgitta Sif, 2012). In their content analysis, they found that the majority of the books (62%) focused primarily on repetitive and restrictive interests/movements and sensory irregularities, such as being overly sensitive to loud noises (Kelley et al., 2015). They do report, however, that

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

newer books such as those published in the 2000's, began to include the language deficit aspect of autism. Similarly, Maich and Belcher (2010) found that fictional picture books on autism written between 2000-2009 included a variety of symptoms pertaining to autism which included language impairments and attention deficits.

In addition to the portrayal of symptoms, researchers have unraveled interesting findings in regards to the manner in which the authors of picture books about autism presented the *plot of the stories*. Belcher and Maich (2010)'s study revealed that the plots of the fictional picture books on autism have largely been influenced by the time period in which the books were written. For example, autism picture books in the 1990s were mostly written by parents or siblings of a child with autism, with the focus primarily being on the difficulty and struggle of raising a child with autism. This could be due to the fact that during this time, families of children with autism did not receive adequate support and, thus, the daily challenges they faced are reflected in their stories (Belcher & Maich, 2010). By contrast, autism picture books written in the 2000's promote the idea of the need of strong social support in raising a child with autism (Belcher & Maich, 2010).

One study found that, in terms of storyline, there was a tendency for authors to portray the child as significantly "improving" and being praised for this feat rather than forwarding the idea of accepting the character with autism for who he or she is (Sigmon et al., 2016). In my opinion, in order to increase empathy and acceptance of autism amongst typically-developing children, it is vital to send a message of accepting children with autism in any situation, rather than solely accepting them when and if they show "improvement" or characteristics similar to typically-developing children.

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

Before the 1990's, characters with any form of disability were often portrayed as “poor little things” (Ayala, 1999, p. 106), having their differences, rather than their similarities with other children, being emphasized (Artman-Meeker et al., 2015; Maich & Belcher, 2014). Although there is no harm in portraying children with autism as being different in some ways to typically-developing children, and experiencing the world differently, authors need to be careful not to portray these characters as “helpless” or as “victims”. It is crucial to stress that while children with autism may appear different, they can still be a part of society and must not be bullied *or* marginalized by others. Interestingly, in recent years, the narrative has shifted from characters with autism being portrayed as “poor little things” to a more positive, however unrealistic portrayal: “brave little soul” (Ayala, 1999, p.106). In my opinion, while it is no doubt that many children with autism are indeed brave and overcome great challenges, it is essential to acknowledge that children with autism may not always meet the demands placed on them and may be unable to overcome certain obstacles. By doing this, we can ensure that typically-developing children learn to accept and respect children with autism, regardless of the situation.

In a separate analysis, Belcher and Maich (2010) analyzed the settings portrayed in fictional picture books about autism. They found that the majority of the picture books situated the characters with autism in the home or school setting and very few characters were shown to be integrating into the larger society, which they believe is a stereotypical representation. It would be beneficial for authors to situate characters with autism in a variety of settings, rather than solely in a home or school setting, in order to provide a more realistic portrayal of individuals with autism.

An additional trend that has been discovered is regarding the *demographics of the characters*. The findings have revealed that a majority of the characters with autism portrayed in

fictional children’s picture books are male and Caucasian (Artman et al., 2015; Ayala, 1999; Dyches et al., 2001; Gaffney & Wilkins, 2015; Kelley et al., 2015). It is important to note that males are 4.5 times more likely to be diagnosed with autism compared to females (Center for Disease Control and Prevention, 2016), which might explain why there is a higher representation of male characters with autism in children’s books compared to females. Despite this, it is imperative that more female characters with autism be represented in children’s books in order to accurately reflect the diversity of autism. Moreover, it is equally essential that characters with autism in fictional picture books represent a variety of races and ethnicities, otherwise, readers can be misled to ignore diagnoses of autism in non-Caucasians.

Research on popular media and autism awareness. The aforementioned research suggests that picture books have the potential to be influential tools in bringing sensitive issues – in this case, autism – to the forefront in classrooms and at home. For this reason, there is a strong need to evaluate and analyze the content of these books to ensure that they represent the autism community in a positive and realistic manner. If, however, we want to critically analyze representations of autism in the hopes of raising autism awareness amongst children, it is important to note that these representations are not limited to picture books. In recent years, characters with autism are being introduced in children’s films and television programming.

Representations of autism in films and television. One of the most well-known portrayals of autism in film is the character of Raymond Babbit in the 1988 film *Rain Man* directed by Barry Levinson (Hannam, 2014). Although it was successful in spreading autism awareness (Baird, Cass, & Slonims, 2003), it is important for audiences to be aware that it portrays solely *one type* of autism. For instance, Raymond has what is known as “high-functioning autism” (Baird et al, 2003) which means that he is higher functioning in terms of his

cognitive development, relative to individuals with low-functioning autism (Sanders, 2009). Although Raymond's character seems to portray high-functioning autism accurately, Lynch (2014) notes that he displays certain savant-like abilities such as having a photographic memory and being exceptionally good with numbers. -It is important that audiences do not assume that all individuals with autism are savants, as this is a highly-stereotyped notion of individuals with autism. It can be beneficial to explicitly clarify that there are different types of autism to ensure that audiences are not being misled. For instance, the 2005 film *Mozart and the Whale* portrayed two characters diagnosed with high-functioning autism, however, these characters were vastly different from each other so that the film conveys the message that no two individuals with autism are the same (Hannam, 2014).

Researchers Garner, Jones, and Harwood (2015) also examined portrayals of autism in the following films: *Ben X* (Dir: Nic Balthazar, 2007), *The Black Balloon* (Dir: Elissa Down, 2008), *Bless the Child* (Dir: Chuck Russell, 2000), *Chocolate* (Dir: Lasse Holstrom, 2000), *Guarding Eddy*, *Killer Diller* (Dir: Josh Binney, 1948), *Mary and Max* (Dir: Adam Elliot, 2009), *Mercury Rising*, *Molly* (Dir: John Duigan, 1999), *Mozart and the Whale* (Dir: Peter Naess, 2005), *My Name is Khan* (Dir: Karan Johar, 2010), *Ocean Heaven* (Dir: Xue Xiaolu, 2010), *Rain Man* (Dir: Barry Levinson, 1988), *Silent Fall* (Dir: Bruce Beresford, 1994) and *Snowcake* (Dir: Marc Evans, 2006). Similar to the aforementioned study, they concluded that some of the characters with autism were shown with exceptional qualities. They did, however, identify an additional theme which was that some of the characters were at the opposite extreme and were portrayed as being completely unable to function (Garner, et al., 2015). While it is true that some individuals with autism have more challenges in their daily functioning (Hartley, Papp, Blumenstock, Floyd, & Goetz, 2016), it is crucial, again, for these films to convey the message

that this is one form of autism and that not all individuals with autism are completely unable to function in their daily lives.

In addition to films, many television shows have also featured either characters diagnosed with autism, or those who have traits of autism. In *Criminal Minds* (CBS), *Grey's Anatomy* (ABC), and *Parenthood* (NBC), Belcher and Maich (2014) determined that the creators portrayed the characters with autism as having social deficits which is representative of autism, however, they also exhibited expert and gifted skills in certain areas, despite the fact that these unique skills for people with autism occur less than 10% of the time (Belcher & Maich, 2014). In addition to television shows, they further analyzed the following films which featured characters with autism: *Temple Grandin* (Dir: Mick Jackson, 2010), *Salmon Fishing in the Yemen* (Dir: Lasse Halstrom, 2011), *Extremely Loud and Incredibly Close* (Dir: Stephen Daldry, 2011), *Dear John* (Dir: Lasse Halstrom, 2010), and *My Name is Khan* (Dir: Karan Johar, 2010). They found that all of the characters with autism were portrayed as heroic, overcoming great odds and high-risk situations, which again, is problematic as this sets unrealistic expectations for viewers (Belcher & Maich, 2014).

Hannam (2014) sought to explore *themes* in ten films and television shows featuring characters with autism. The following were examined: *Rain Man* (Dir: Barry Levinson, 1988), *House of Cards* (Dir: John Guillermin, 1968), *Mercury Rising* (Dir: Harold Becker, 1998), *Molly* (Dir: John Duigan, 1999), *Mozart and the Whale* (Dir: Peter Naess, 2005), *After Thomas* (Dir: Simon Shore, 2006), *The Black Balloon* (Dir: Elissa Down, 2008), *Adam* (Dir: Michael Tuchner, 1983), *Mary and Max* (Dir: Adam Elliot, 2009), and *Temple Grandin* (Dir: Mick Jackson, 2010). The following six themes emerged as a result of this analysis: 1) rather than being the main character, the character with autism added to the story of the main character; 2) other characters

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

in the story, usually doctors, defined the character as having autism; 3) autism was portrayed as a disturbance for both the character diagnosed and others in the story; 4) the character with autism was portrayed as being overly-sweet, innocent, and asexual; 5) the character with autism had super skills which were used for the other characters' benefits; 6) there was a portrayal of isolation in regards to the character with autism from other characters and from the audience; and finally, 7) the life of the character with autism is the same at the end of the film (Hannam, 2014). All of these themes reveal important information regarding how autism is typically portrayed in television and film. As shown in these studies, while some aspects of these representations of autism are positive and accurate, many of these television programs and films represent unrealistic and stereotyped portrayals of autism.

These findings highlight how critical it is to examine and evaluate the portrayals of autism being depicted on television and in films. Specifically for underrepresented and sensitive issues such as autism, it is crucial that audiences are given positive and accurate information as this can greatly influence their perceptions of individuals with autism and autism as a whole.

Representations of Autism in Children's Television.

In recent years, children's television programs have featured a character with autism in one or more episodes. The most recent character with autism to be introduced in a mainstream children's television program is the character of Julia on *Sesame Street*. Thus far, the existing research that evaluates the representations of autism is focused on teenage or adult-centered television shows and/or films. Research specifically examining representations of autism in children's television programming is non-existent. Notably, there are not many representations of autism in children's television programming, however, it remains crucial to critique the

portrayals that do exist, as they may influence how many children view autism and can have implications for autism acceptance and inclusion in the classroom and larger society.

Present Study

The aim of this present study is to critically examine portrayals of autism in children's television programming. Previous studies have looked at portrayals of autism in children's literature and/or movies and television shows directed at adults. Thus, the present study aims to offer a new direction in answering the following research question: How is autism portrayed on *children's* television programming with regards to: race, gender, symptomology, personality characteristics, setting, roles of other characters, and, finally, main themes.

While previous studies have examined fictional picture books and their importance in spreading awareness of autism, it is crucial to include an analysis of portrayals of autism on children's television programming as children are highly susceptible to being influenced by what they watch (Greenfield, 2014). Identifying the pros and cons of representations of autism in children's television programming may also provide recommendations for creators on how best to depict an accurate, wholesome, and educative representation of autism. Additionally, comparing representations of autism in children's television with representations in children's picture books can inform teachers and parents alike as to which medium may be the most beneficial in promoting autism awareness amongst children.

Methodology

Research Design and Analysis

The design of the present study is a modified version of Belcher and Maich (2014)'s study, which analyzed and compared mainstream television programs, movies, and children's picture books featuring a character with autism. This present study extended Belcher and Maich's research by analyzing *children's* television programming, rather than television programs aimed at adults. In order to consider the implications of the television programs on raising awareness of autism with child audiences, the findings of this analysis will be discussed in light of research on portrayals of autism in children's picture books.

Selection of Data Sources

Selection criteria. There were two criteria for selection of television programs in this study: the program was targeted towards children between three and 11 years of age, i.e. preschool and elementary-aged children, and 2) one or more of the episodes needed to feature a character diagnosed with any form of autism spectrum disorder. Due to the overlap of autism symptoms with other disorders (i.e. sensory processing disorder), it is important that it was clearly stated, either in the episode or in the general description of the episode, that the character(s) is diagnosed specifically with a form of autism spectrum disorder.

Selection Process. An internet search from website databases such as Google and Yahoo was used to discover which children's television programs have featured a character with autism. Furthermore, articles on autism websites such as www.autismspeaks.com have provided information regarding new television programs discussing the topic of autism. The television shows featured in these articles were also included in the present study. The following table provides an overview of the episodes analyzed in the present study:

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

*Table 1.
List of Television Programs Analyzed*

Television Program	Season, Episode	Genre	Target Audience	Network	Length of Episode
Sesame Street	“Meet Julia” season 47, episode 15	Sketch Comedy Puppetry Animation	Children (3-5 years of age)	PBS	30 minutes
Mack and Moxy	“A Spectrum of Possibilities” season 1, episode 5	Animation Puppetry	Children (3-7 years of age)	Netflix	28 minutes
Arthur	“When Carl Met George” season 13, episode 6a	Animation	Children (4-8 years of age)	PBS	11 minutes
	“Buster Spaces Out” season 14, episode 10a	Animation	Children (4-8 years of age)	PBS	11 minutes
	“Baseball Blues” season 16, episode 7a	Animation	Children (4-8 years of age)	PBS	11 minutes
	“Ladonna Compson: Party Animal” season 17, episode 2b	Animation	Children (4-8 years of age)	PBS	11 minutes
	“Go Fly a Kite” season 17, episode 7b	Animation	Children (4-8 years of age)	PBS	11 minutes
	“Brain Freeze” season 17, episode 10b	Animation	Children (4-8 years of age)	PBS	11 minutes

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

“Carl’s Concerto” season 19, episode 7	Animation	Children (4-8 years of age)	PBS	11 minutes
“He said, He said” season 20, episode 3a	Animation	Children (4-8 years of age)	PBS	11 minutes

Data Analysis

Content analysis of children’s television programs. Each relevant scene in the episode was transcribed. Scenes in which the character was directly involved, either through an appearance and/or through dialogue were included as were scenes which involved a mention of autism in general. Scenes which had no relevance to the character with autism or autism in general were excluded from the analysis.

The study consisted of a close, textual interpretation of the selected scenes through a content analysis approach. This analysis was based on Hannam (2014)’s approach to analyze the manifest content, which is the content seen directly by the viewer (Hannam, 2014). The manifest content explored included the following: physical appearance of the character with autism, symptoms portrayed, personality characteristics, setting, and the roles of the other characters. The episode’s main themes were also identified.

Validity. In order to ensure validity, it is vital for the researcher to be well-informed about autism spectrum disorder. Providing an accurate critique of the television programs requires that the researcher has a sufficient amount of knowledge surrounding autism. In addition to the researcher having four years’ experience working with clientele diagnosed with various forms of autism, information regarding autism was obtained through research articles, the DSM-V, informative autism websites such as www.autismspeaks.com, and textbooks about autism. This

ensured that the researcher had the background knowledge to provide an analysis and a critique of the portrayals of autism in children’s media.

For the analysis of the symptoms of autism portrayed by the characters, the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) was used. As per the DSM-V, the symptoms portrayed by the characters were coded as being a part of one of the two overarching criteria for ASD (see Table 1).

Table 2.
Symptoms of Autism Spectrum Disorder in DSM-V

Symptom	Examples (examples are illustrative, not exhaustive)
1. Persistent deficits in social communication and social interaction across multiple contexts, as manifested by all of the following, currently or by history (D-SISC)	Deficits in social-emotional reciprocity, ranging, for example, from abnormal social approach and failure of normal back-and-forth conversation; to reduced sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions.
	Deficits in nonverbal communicative behaviors used for social interaction, ranging, for example, from poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body language or deficits in understanding and use of gestures; to a total lack of facial expressions and nonverbal communication.
	Deficits in developing, maintaining, and understanding relationships, ranging, for example, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers
2. Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least two of the following, currently or by history (R-BIA)	Stereotyped or repetitive motor movements, use of objects, or speech (e.g., simple motor stereotypies, lining up toys or flipping objects, echolalia, idiosyncratic phrases).
	Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior (e.g., extreme distress at small changes, difficulties with transitions, rigid thinking patterns, greeting rituals, need to take same route or eat same food every day).
	Highly restricted, fixated interests that are abnormal in intensity or

focus (e.g., strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests). Hyper- or hypo reactivity to sensory input or unusual interest in sensory aspects of the environment (e.g., apparent indifference to pain/temperature, adverse response to specific sounds or textures, excessive smelling or touching of objects, visual fascination with lights or movement).

Symptoms which reflected the first overarching symptom for ASD, a deficit in social communication and social interaction, were coded as D-SISC, whereas any symptom reflecting the second overarching symptom, restrictive or repetitive behaviour, interest, or action, was coded as R-BIA. Table 2 provides an example of the coding scheme used in the content analysis of the television programs:

*Table 3.
Sample of Coding Scheme*

Scene	Setting	Action	DSM-V Criteria for ASD	Personality Characteristics	General Comments
1. Julia is painting with Abby	Outside			Sociable Friendly	
2. Alan: “More paper guys?” Abby and Elmo answer him and say “thank you” while Julia is looking down and continues painting.			D-SISC		
3. Alan (looking at camera): “ <i>oh hey welcome to Sesame Street</i> ”.					
4. Abby and Elmo: “ <i>hey!</i> ” Julia continues looking down at her painting.			D-SISC		

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

<p>5. Big Bird enters scene. Big Bird: <i>“Hi everyone!”</i> He looks at Julia. Big Bird: <i>“Oh, who’s this?”</i> Elmo: <i>“This is our friend Julia”</i> Big Bird: <i>“Oh hi Julia, I’m Big Bird. Nice to meet you”.</i> Big Bird extends his hand (to shake Julia’s hand) and Julia continues drawing and does not look up. Big Bird: <i>“Oh...Julia?”</i> Alan: <i>“Julia’s just concentrating on her painting right now”</i></p>	<p>D-SISC</p>	<p>Julia makes a grimace and an incomprehensible vocalization</p>	<p>R-BIA (Hyper- or hypo reactivity to sensory input)</p>	<p>Abby aware of Julia's needs</p>
<p>7. Abby: <i>“I’m sorry, I know you don’t like the way it feels”.</i> Julia shakes her head and continues painting</p>				<p>Abby aware of Julia's needs</p>
<p>8. Alan to Julia: <i>“And that’s why a paintbrush works for you ...there’s lots of ways to paint!”</i></p>				<p>Alan aware of Julia's needs</p>
<p>9. Big Bird: <i>“May I see your painting Julia?”</i> Julia continues to paint.</p>	<p>D-SISC</p>			

Researcher bias. In order to control for researcher bias, a former graduate student, in addition to the primary researcher, coded 25% of the television data for inter-rater reliability. This ensured that there is no individual bias on the part of the researcher. The agreement percentage was over 85%. Disagreements were resolved by reviewing the diagnostic criteria for autism as per the DSM V.

Findings and Analysis

The objective of this study was to examine fictional portrayals of autism in children’s television programming. In this section, the findings from my analysis of the texts (*Arthur*: eight episodes; *Sesame Street*: one episode; and *Mack and Moxy*: one episode) will be described.

First, an introduction to each series is provided, followed by a description of the depicted character with autism. The findings from the content analysis of each series is then presented as follows: ***Physical appearance*** of the character with autism, the ***DSM V Criteria for ASD*** focusing on the symptoms displayed by the characters with autism, the ***Personality Characteristics*** of the characters with autism, the ***Setting*** in which the characters are situated in, an analysis of the roles of the ***Supporting Characters***, the ***Main Theme(s)*** of the episodes, a brief description of how the authors chose to explain autism to the general audience under the heading of ***How is Autism Explained?***, and finally, the ***Implications*** of the portrayal of autism.

Series: *Sesame Street*

Episode: “Meet Julia” (S47E15)

Introduction and Background

Sesame Street first aired in 1969 and has since been an iconic leader in the world of children’s educational television programs. While Sesame Street initially strived to foster

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

children’s cognitive development, the show later introduced segments geared towards cultivating children’s socioemotional development (Morrow, 2006). Over the years, Sesame Street has shed light on various topics such as conflict resolution, diversity, and death. It was not until 2017, however, that Sesame Street introduced the topic of autism through a digital storybook as part of their Sesame Street and Autism: See Amazing in All Children initiative. The storybook featured a character named Julia who has autism. In April of 2017, Sesame Street aired a special episode in honour of “Autism Awareness Month” in which Julia appears as a physical Muppet on the 6th episode of the show’s 47th season. “Meet Julia”, the name of the episode aired on television was written by Christine Ferraro, a writer who has written 25 episodes for Sesame Street, dating back to 1995 (Stahl, 2017). The puppeteer playing Julia in “Meet Julia” is Stacey Gordon, a mother of a child with autism (McCandless, 2017).

Physical Appearance of Character with Autism



Figure 1- Julia

Julia is a four-year old female muppet. She has bright orange hair and wears a purple dress with green pants. Julia is seen in the same attire throughout the episode, which reflects the general format of the show. Her puppet was designed by Rollie Krewson (McCandless, 2017).

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

DSM V Criteria for ASD

Deficits in Social Communication and Social Interaction. Throughout the episode, Julia displayed persistent deficits in social communication. In one of the first scenes, Alan, the human adult character, comes in and asks Elmo, Abby, and Julia if they would like more paper to draw on. While Elmo and Abby answer him, Julia does not respond and continues to look at her paper (Appendix A, line 2). In a separate scene, Big Bird enters, greets the other characters and inquires about Julia. He turns to Julia and says, "Oh, hi Julia, I'm Big Bird. Nice to meet you," and extends his hand to which Julia does not respond (Appendix A, line 5). This scene serves as the basis for the rest of the episode in which Big Bird feels perplexed regarding Julia's behaviours and needs guidance in understanding her condition of autism. In another scene, Big Bird asks Julia if he can see her painting and she once again does not respond (Appendix A, line 9).

Repetitive Behaviours, Interests, or Actions. A noticeable symptom that Julia portrays is in regards to her speech. She displays echolalia which is the repetition of vocalizations such as phrases or words (Stiegler, 2015). When Abby asks Julia if she wants to play, Julia responds by saying, "Play, play, play!" (Appendix A, line 20). In a separate scene, when Alan asks Julia if she wants to take a break, and Julia responds by saying, "break, break". Also, when asked if she's feeling better following her meltdown, Julia responds by saying, "better". Julia also displays stereotyped motor movements. In certain scenes, Julia is shown flapping her arms. While arm-flapping can occur when children are distressed, it is explained in the episode that Julia engages in this behaviour when she is excited.

Julia displayed a negative reaction to sensory input which was shown through her reluctance to paint with her fingers, followed by a vocalization when witnessing Abby squishing

paint in her hand (Appendix A, line 6), alluding to hyper reactivity to sensory input.

Furthermore, there is a pivotal scene in which Julia displays an overwhelming response to the sounds of a police siren. The portrayal of a sensory meltdown is vital as meltdowns are common amongst children with autism (Bedrossian, 2015). Julia's hyper-reactivity to the police siren results in her continuously vocalizing and covering her ears. Eventually, Julia needs to be escorted to a more soothing, quiet location. In order to regain a sense of calm, Julia requires external support, in this case from Alan, who models self-regulation and calming techniques. The use of modelling is common with individuals who work with children with autism, as children with autism are not always able to self-regulate and need additional guidance to restore a sense of calm within themselves. Alan is seen modelling breathing techniques in addition to distracting Julia away from the situation at hand by talking about the peaceful environment surrounding them.

Personality Characteristics

Artistic Talent. In many shows and films with autism, characters often have an extraordinary talent (Belcher & Maich, 2014). Such is the case with Julia who is shown making a skilled and detailed painting of her toy bunny (Appendix A, line 11). Her painting is quite advanced for her age, which hints that Julia may have an extraordinary talent in painting. This is consistent with the research on representations of autism that shows how characters with autism are often portrayed as having an astonishing talent, despite the fact that this only occurs in less than 10% of individuals with autism and is a large stereotype (Belcher & Maich, 2014).

Sociability and Playfulness with Abby and Elmo. Julia appears to be comfortable with her friends, Elmo, Abby, and Alan. For instance, in the opening scenes, she is seen painting with Abby and Elmo (Appendix A, lines 1-14). Furthermore, when discussing Julia's autism, Elmo

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

mentions how Julia loves being with friends and enjoys playing (Appendix A, line 19). Julia's playful behaviour is broadcast throughout the episode. One scene shows Julia's interest in playing tag with her friends. She becomes very excited and is seen giggling and flapping her arms. She appears ecstatic while she is playing tag and is giggling and laughing throughout the game. This is important, as it shows Julia integrating into everyday activities typical for a child her age. Furthermore, this shows how children with autism can enjoy their lives and have many commonalities with other children. It is important that the writers have made Julia's interest in playing an integral part of her personality, as playing is a central part of most children's lives. This highlights Julia's similarities to other children.

Sense of Humour. In one instance, Julia is shown as having a sense of humour. In this scene, she spots Big Bird from the balcony and begins giggling and repeating the name "Big Bird". Alan quickly deduces that Julia is laughing at the fact that although his name is "*Big*" Bird, he appears small from high up in the balcony. Adding a humorous side to Julia is of great benefit for the general audience, as many people may falsely believe that children with autism are indifferent in regards to their emotions. Again, this emphasizes how Julia, and children with autism by extension, has many similarities to typically-developing children.

Kindness. Another characteristic that Julia exhibits is kindness. For instance, nearing the end of the episode, Julia says "Big Bird" and proceeds to give Big Bird a flower. This surprises Big Bird and makes him very happy. This is the first instance of Julia being kind *to* someone, rather than being on the receiving end of an act of kindness. Throughout the episode, the typically-developing characters are kind to Julia which can have very positive implications for children who are watching. According to researchers, characters with autism can often times appear helpless and vulnerable (Ayala, 1999). However, it was important to show Julia showing

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

an act of kindness to another character as well, as this shows that children with autism not only need kindness, but can very well give kindness to other children.

Setting

Like all episodes on Sesame Street, "Meet Julia" is located on the fictional "Sesame Street". Situating Julia in the same environment as the other episodes is important, as this reflects her equality to the other characters. As mentioned previously, according to research examining portrayals of autism in picture books, characters with autism are often shown in a home or school setting (Belcher & Maich, 2010). On the contrary, Julia, like the other characters, is seen on "Sesame Street" and is engaging in child-centered activities such as painting and playing as previously mentioned. The one instance in which Julia is in a separate setting from the other characters is when she is taken to the balcony by Alan after experiencing a meltdown. Once they reach the balcony, Alan says, "I can see why this is your favourite spot. Lots of pretty flowers. Very calming". Although Julia is "separated" from the other characters in this scene, it is a realistic representation, as some children with autism derive great benefit from retreating to a calm location in the event of a sensory meltdown. Situating Julia in an area where she is shown to be simply playing with her friends gives a light-hearted ambience to her character, something which is highly appealing to young viewers who may be "introduced" to autism for the first time. Furthermore, situating Julia with solely her friends supports the idea that the social and communication challenges children with autism experience need not to obstruct their ability to make friends and enjoy time spent with their peers.

Supporting Characters

Along with Julia, this episode features two of Julia's closest friends: Elmo and Abby Cadabby. Elmo is a red muppet with a characteristic high-pitched voice. Elmo first appeared on

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

the show in 1985 and has been a household name in the series. Abby Cadabby, in contrast, is a relatively new character on the show and is portrayed as a fairy. In many scenes, Elmo and Abby are seen with Julia painting or playing (Appendix A, lines 1-11). A heartfelt moment on the show is when Elmo, Abby, and Julia are all playing “boing-tag”, Julia’s version of the popular children’s game “tag”. This scene is vital on the show as it portrays Julia integrating with Elmo and Abby, and enjoying herself immensely. In addition, a key message of this scene is that Elmo and Abby seem content with altering the game to suit Julia’s needs. Julia is seen playing the game in a non-traditional way by bouncing up and down. Rather than correcting her, Elmo and Abby join and mimic her. This is important as Elmo and Abby are teaching the audience how they can accommodate their peers with autism and include them in their social activities. It is commendable that Elmo and Abby made Julia feel comfortable while they were playing, rather than alienate her for playing “tag” in a different manner, which is a highly positive message promoted through this scene.

Abby and Elmo are also seen speaking about Julia with admiration. When describing Julia to Big Bird, Abby says in an enthusiastic manner, “aaand she’s A LOT of fun!” looking at the sky with both arms stretched out (Appendix A, line 19). Through her gestures, tone of voice, and facial expressions, Abby is giving a lot of importance to Julia’s character which is a positive message to send to the audience. Following this, Elmo says: “Yeah, Julia likes being with a friend. Oh, and she loves to play too!” (Appendix A, line 19). Abby is also shown praising Julia. For instance, she is seen complimenting Julia’s painting, which in turn makes Julia feel ecstatic as is shown by her giggling and arm-flapping (Appendix A, line 13).

A pivotal scene which highlights Elmo, Abby, and Julia’s friendship is following her meltdown. Big Bird is visibly upset, feeling as if he is the reason behind Julia’s meltdown. Elmo

and Abby console Big Bird and explain the underlying cause of Julia's meltdown. Their conversation is as follows: "Abby: "Oh, i-it's not your fault, Big Bird. Julia didn't like the sirens. Big Bird: "The sirens? It wasn't that loud". Elmo: "But, well, it was to Julia". Abby: "Yeah. Her ears are really sensitive. So some sounds are just...too much for her". This scene does not only display Elmo and Abby reassuring Big Bird, it inadvertently shows how well-acquainted they are with Julia and her symptoms. Although Alan previously explains Julia's autism to Big Bird and the viewers throughout the episode, it is beneficial to portray Abby and Elmo, two child characters, taking on this role. To the child viewers, this shows that with time, they too can eventually become well-acquainted with their peers with autism, independent of having an adult figure mediating their friendships. This can foster a convenient, supportive, and favourable environment for everyone involved.

There were many additional instances which portray Abby and Elmo explaining Julia's autism to Big Bird. For instance, when Alan is explaining Julia's behaviours to Big Bird, Abby says, "yeah! She does things just a little differently. In a Julia sort of way!" (Appendix A, line 18). Elmo and Abby provide clarification not just to Big Bird, but to the audience as well in regards to how Julia is behaving, what she enjoys, and by contrast, what makes her upset. Through their conversation with Big Bird, both Elmo and Abby provide the main message of the episode. For instance, in one scene, Big Bird says, "Oh I'm just thinking about Julia. You know, she's not like any friend I've had before" to which Elmo responds, "Yeah, well, none of us are exactly the same". Abby adds to Elmo's message by saying, Abby: "Yeah, that's right. You're a bird, Elmo's a monster, and I'm a fairy. We're all different". This reassures Big Bird and he realizes how all of his friends are "different" and "unique". This is another pivotal moment as the

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

key message of the episode is in regards to how each child, not only those with autism, is different, ultimately making each child unique and special.

Along with the muppet characters on the show, Sesame Street features a variety of human characters. Alan is of Japanese-American descent, played by actor and theatre-director Alan Muraoka. He made his debut on the show in 1998 and has since made appearances as the owner of Sesame Street's fictional "Hooper's Store" (Wang, 2015). In "Meet Julia", Alan serves a key role in which he simultaneously caters to Julia's needs while explaining Julia's autism to both Big Bird and the viewers of the episode. In terms of his relationship with Julia, Alan appears to know exactly what Julia needs and, consequently, is able to interact with her in an accommodating way. For instance, in one scene, Big Bird asks Julia if he could see her painting, to which Julia is unresponsive. This puzzles Big Bird; however, Alan is quick to resolve the situation by kneeling down to Julia's level and asking her "can Big Bird see your painting?" in a calm, gentle tone (Appendix A, line 11). This scene inadvertently shows how Alan is aware of the manner in which Julia needs to be spoken to and modifies his interactions with her accordingly.

Julia's meltdown, following the overwhelming sounds of a police siren, is a pivotal scene highlighting the close relationship between Alan and Julia. In response to Julia's visible discomfort, Alan says, "Alan: *Oh. Oh. Alright. Hey, Julia? Julia? Let's take a break ok?*". Alan then proceeds to bring her to a quiet space and directs her attention towards calming objects such as flowers, and her favourite comfort toy Fluffster. Alan is shown speaking in a calm and gentle tone throughout the episode; however, he is especially calm when Julia is experiencing a meltdown so as to not further overwhelm her. The aforementioned scenes convey critical messages that highlight the importance of thoughtful, patient, and accommodating social

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

interactions with individuals who are on the autism spectrum. Viewers of this episode can gain insight in regards to how children with autism may require to be spoken to in an exceptionally calm and patient manner. In addition, Alan's role in helping Julia with her meltdown can be served as a model for typically-developing children. Children can familiarize themselves with appropriate behaviours that can help their peers with autism should they undergo something similar.

Finally, Alan is seen throughout the episode teaching Big Bird and the audience about Julia's autism and guiding Big Bird's interactions with her. For example, in one scene, Alan says, "Well, with Julia, it's not just that. You see, she has autism. She likes it when people know that". Big Bird responds by saying, "Autism? What's autism?" Alan then says, "Well, for Julia, it means that she might not answer you right away" (Appendix A, line 17). Here, Alan looks at the camera in an effort to explain autism to the viewers in addition to Big Bird. In a separate scene, Big Bird asks Alan why Julia flaps her hands to which Alan replies, "Yup. That's just something she does when she's excited. But you know what? Julia also does some things that you may want to try". It is advantageous to add an adult voice in the episode, as this brings an angle of seriousness to the characters' discussion of autism. Moreover, the combination of Alan's explanations of Julia's autism paired with visual examples of Julia's symptoms, allows the viewers to gain a comprehensive view of what autism may look like. For the viewers, his social interactions with Julia serve as a model of appropriate behaviour when interacting with children with autism.

Big Bird is a lead character on Sesame Street. He is an anthropomorphic canary who is known for his tall and bright yellow appearance. He first appeared on the show in November of 1969 and has since then been an iconic figure in children's educational television. Big Bird's role

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

in “Meet Julia” is integral to the episode. He is the confused character who does not fully understand why Julia is behaving differently. For instance, when he introduces himself to Julia and says, “Oh hi Julia, I’m Big Bird. Nice to meet you,” Julia continues to draw and does not acknowledge him (Appendix A, line 5). In a separate scene, Big Bird asks Julia to see her painting and Julia once again does not respond (Appendix A, line 9). In one scene, Big Bird appears very confused about Julia’s response to him and says, “I don’t think Julia likes me very much” (Appendix A, line 16). This is a vital moment of the episode as it paves the way for Alan to explain Julia’s autism to Big Bird and the viewers of the episode.

A separate but equally integral part of the episode is Big Bird’s response to Julia’s meltdown. Julia is visibly upset due to the sounds of a police siren unbeknownst to Big Bird, who suddenly “tags” her while she is in the midst of her anxiety. This causes Julia’s anxiety to escalate and results in repeatedly screaming “NO! NO! NO! NO!”. Big Bird is very alarmed, feels as if it was his fault, and explains that he “didn’t mean to upset Julia”. This scene is critical as it is a realistic portrayal of potential experiences of children who have friends diagnosed with autism. It is positive that throughout the episode Julia’s interactions with her friends are light-hearted, however, it is important to portray the challenges that the supporting characters face in regards to Julia’s behaviours. Meltdowns are a common symptom for children who have autism (Bedrossian, 2015), thus, it is important to shed light on how one might feel when witnessing a child experiencing a meltdown. This can be a common issue amongst typically-developing children. Many children may identify with Big Bird’s reaction of confusion and guilt, thus, making it crucial to showcase how one can help someone with autism experiencing a meltdown, and what the underlying causes of the meltdown may be.

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

Big Bird's character is important. While it is refreshing to witness characters accepting and supporting characters with special needs, it is important to portray characters who initially appear apprehensive. While Elmo, Abby, and Alan were positive characters who accepted Julia for who she was, Big Bird is a vital character as typically-developing children watching the show may be able to identify with him. While watching the show, typically-developing viewers may also be confused in regards to Julia's behaviours and thus relate to Big Bird more than the other characters who are well acquainted with Julia and her diagnosis. The viewers' attitudes and perceptions towards Julia and autism in general may alter and grow with Big Bird. The presence of Big Bird's character shows that it is okay to initially experience confusion in the event that a peer is behaving differently than what is expected, however, dignity and respect still needs to be displayed to children of all types.

A defining moment in Big Bird's role is when he says, "All my friends are different. Each one is unique". This shows that he is beginning to comprehend that Julia may do things differently and that it is ok for her to do so. This scene is important as it acknowledges any confused feelings regarding Julia's behaviours the audience may have, while simultaneously showing the evolution in Big Bird's thought processes regarding Julia. Showing Big Bird being tolerant of Julia's "differences" will enable child viewers to recognize that although some social situations, such as meeting a peer with any form of disability, may feel uncomfortable, asking questions and gaining knowledge is key in fostering healthy relationships with children who may appear different in any form.

Main Themes

Acceptance and Friendship. Two central themes of "Meet Julia" are friendship and acceptance. A highly positive feature of this episode is that Julia's autism is not portrayed as

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

something negative, but rather, it is used as a means through which the message of acceptance and friendship is carried out. For instance, in one scene, Alan says to Big Bird, "... but you know what? Julia also does some things you may want to try". Further, when Big Bird inquires about Julia's mannerisms while playing, Alan responds by saying, "...it doesn't matter how they play. They're just a bunch of friends having fun!". These scenes demonstrate that while there are pronounced differences in Julia's behaviours throughout the episode, the writers emphasize the obligation to accept Julia, and by extension every child with autism, for who she is. Perhaps the most representative scene in regards to the theme of acceptance is when Big Bird expresses how Julia is unlike any other friend he has ever met. Elmo responds by saying, "yeah, well, none of us are exactly the same", to which Abby adds, "Yeah, that's right. You're a bird, Elmo's a monster, and I'm a fairy. We're all different". This scene reinforces the message that all children are different and unique. Julia's differences and ability to be a fun, caring friend are not mutually exclusive. Importantly, the episode has, at many times, highlighted Julia's commonalities with the other characters. For instance in one scene Elmo says, "There's another thing you have in common, Big Bird, Julia loves to sing!". Showcasing Julia's commonalities with the other characters further promotes the idea of acceptance. Solely focusing on her differences may overwhelm young children, which in turn can potentially lead them to exhibit alienating behaviours towards peers with autism.

Tied into the theme of acceptance is the theme of friendship. In accordance with the general format of Sesame Street, this episode features a song in which all the characters sing about a specific topic. The topic of the song featured in "Meet Julia" is friendship and features all the characters starring in the episode, including Julia. The characters sing and dance about how although everyone is different, "we can all be friends". Furthermore, each episode on Sesame

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

Street features a “letter of the episode”. The writers, instead, opted to choose the letter “F” for “friendship”, in order to further promote the primary message of the episode. Through thematic analysis of “Meet Julia”, it appears that rather than fixating on Julia’s autism, this episode offers ideas and practical solutions on how children and adults alike can better integrate children with autism and foster an inclusive, supportive, and nurturing environment.

Explanation of Autism. Alan, Abby, and Elmo are the characters who explicitly explain autism to the Big Bird and the viewers. When Big Bird asks, “autism? What’s autism?” (Appendix A, line 17), Alan replies by saying, “Well, for Julia, it means that she might not answer you right away...And she may not do what you expect. Like give you a high-five” (Appendix A, line 17). Elmo adds, “yeah, Julia doesn’t say a lot” (Appendix A, line 18), whereas Abby says, “yeah! She does things just a little differently. In a Julia sort of way” (Appendix A, line 18). The keywords in this explanation are “*for Julia*” and “*in a Julia sort of way*”. This means that the writers of the episode are acknowledging that Julia’s symptoms of autism and profile are unique to her and that viewers should exercise caution to ensure that they do not perceive Julia as being representative of *every* child with autism.

Series: *Mack and Moxy*

Episode: “A Spectrum of Possibilities” (S1E05)

Introduction and Background

Mack and Moxy is a children’s television program which first aired in October of 2016. It features a mix of live-action puppets and 3D animations. In addition, each episode features a different guest taking on the role of a “trooper” who helps the team on their mission. Each episode of Mack and Moxy introduces various topics such as nutrition, safety, and hunger to

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

name a few. Many non-profit and governmental organizations such as the American Heart Association, American Red Cross, and Feeding America have partnered with the programmers for specific episodes. The format of each episode centers on Mack and Moxy who, along with their “trooper” go to “Helpee Land” to rescue “The Great Helpee”. Once in “Helpee Land” they meet a “friend in need” who introduces them and the audience to a specific cause. The episode of interest in the present study is titled “A Spectrum of Possibilities” and introduces the characters and the audience to Autism Spectrum Disorder. The episode supports a charitable organization helping individuals with various disabilities, Easter Seals. The following analysis focuses on the depiction of the real Trooper Charlie in 3D animation, and the character of Little Bird, rather than the main character in the episode.

As noted, each episode of Mack and Moxy features a trooper. The trooper is portrayed by a child who helps Mack and Moxy on their mission. In addition, the trooper educates Mack, Moxy, and the audience on the specific cause targeted in the episode. The trooper is selected with and for the non-profit partnered with the episode. In the episode “A Spectrum of Possibilities,” the trooper is Charlie Owens, a human child who is diagnosed with autism in real life. Charlie appears as himself at the start of the episode, however, he later transforms into a 3D animation once reaching “Helpee Land”. Trooper Charlie is the one who identifies another character – Little Bird – as having autism, and is often seen explaining symptoms of autism to the other characters. Little Bird, a 3D animated baby bird, is the episode’s focal point, while the audience learns that Trooper Charlie has experienced much of Little Bird’s symptoms himself.

Physical Appearance of Character with Autism



Figure 2- Trooper Charlie (left) and Little Bird (right)

In terms of gender and race, Trooper Charlie is male and Caucasian. Little Bird is, as noted, a 3D-animated bird. In terms of gender, Little Bird is a male on the account of the supporting characters using the pronoun “he” when referring to him.

DSM V Criteria for ASD

Deficit in Social Communication and Social Interaction. In terms of deficits in social communication and social interaction, Little Bird was shown being unresponsive to other characters. For example, upon meeting Little Bird, Mack says to Little Bird, “How are you doing? We are looking for a Great Helpee,” to which Little Bird does not respond and continues arranging twigs in his nest (Appendix B, line 11). Additionally, later in the episode an event takes place when the show’s main villain attempts to steal the “Great Helpee” from the main characters. Little Bird has an idea of using a special gadget to take the “Great Helpee” before him, however, rather than verbally expressing his idea, he repeatedly flaps his wings to get the others’ attention

Repetitive Behaviours, Interests, and Actions. These repetitive behaviours appeared more frequently compared to the Deficit in Social Communications and Social Interaction category.

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

Little Bird was shown having echolalic speech in various separate instances throughout the episode. For example, in one instance, Moxy says to Little Bird “...want to come with us?” (Appendix B, line 21) to which Little Bird replies, “Want to come with us?” and proceeds to fly on top of Moxy’s head (Appendix B, line 22). In another scene, Moxy says, “We need the clue” and Little Bird repeats her by saying, “Need the clue” (Appendix B, line 25). Another symptom portrayed by Little Bird was his repetitive actions. For instance, as previously mentioned, he was seen repeatedly rearranging twigs in his nest (Appendix B, line 11). In a later scene, an unfortunate event takes place in which an important technological device is taken away from the group by the show’s main villain. Little Bird, however, appears unfazed by this as he is preoccupied with, once again, rearranging twigs in his nest (Appendix B, line 19). In addition, Little Bird was shown flapping his wings throughout the episode which is a reflection of the symptom of arm-flapping seen in some children with autism. In one scene, in response to Little Bird’s flapping Mack says, “He does that a lot. Is he gonna fly away?”. Trooper Charlie replies, “No, flapping is just something kids with autism do sometimes”. Finally, there are additional scenes in which Little Bird is shown flapping his wings as a result of his excitement, such as when the “discadoo” begins functioning properly and when the “Great Helpee” is about to hatch.

Personality Characteristics

Friendly. Little Bird was seen smiling throughout the episode while he was with the other characters in the episode. Despite meeting these characters for the first time, Little Bird appeared to react to them in a positive manner through his facial expressions. Furthermore, he was shown providing assistance to his friends when needed. For instance, when the “discadoo” malfunctions, Little Bird is seen fixing it (Appendix B, line 18). Additionally, Little Bird helps with rescuing the “Great Helpee”.

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

Setting

“A Spectrum of Possibilities” is set in two places: The Headquarters, where the characters and the episode’s main concept is introduced, and Helpeeland, a fictional land in which the characters must carry out their mission for the day. Charlie (as human child) appears at the headquarters, whereas, his 3D animation appears in Helpeeland. Little Bird appears in Helpeeland. Similar to the character of Julia in Sesame Street, Trooper Charlie and Little Bird are not situated in a home or school setting. Again, this is positive as it represents how children with autism are not simply confined in their homes or in their schools and are able share various social experiences with their peers.

Supporting Characters

Mack is a live-action puppet who resembles a moose. Once reaching Helpee Land he transforms into a 3D animation. Mack is shown at times to be confused in response to Little Bird’s behaviours. In one scene, Little Bird repeatedly flaps his wings to which Mack says, “He does that a lot. Is he gonna fly away? Interestingly, this shows that although Mack appears confused, he chooses to ask questions and vocalizes his observations regarding behaviours portrayed by Little Bird in a respectful and sensitive manner. Once Trooper Charlie explains that flapping is “something that kids with autism do sometimes”, Mack replies by saying, “Oh. Ok”. Nearing the end of the episode, Mack shows his appreciation for both Trooper Charlie and Little Bird by saying “You helped us save the Great Helpee!”. This shows that although Mack does not always understand Little Bird’s behaviours, he continues to support him and remain friends with him.

Moxy is a live-action puppet who is a combination of a fox and raccoon. Once arriving in “Helpee Land”, she transforms into a 3D animation. Moxy, although confused about autism, is

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

highly empathetic, kind, accepting, and welcoming of Little Bird. For instance, when Mack is confused due to the fact that Little Bird does not respond to him (Appendix B, line 11), Moxy replies by saying, “Why won’t Little Bird look at us or talk to us?” (Appendix B, line 12).

Trooper Charlie subsequently explains how he feels Little Bird may have autism to which Moxy replies, “It’s all good. We can still be friends!” (Appendix B, line 14). In a separate scene, Moxy says, “Little Bird repeats stuff *a lot!*”. Interestingly, she says this smiling with both her arms raised up as if speaking about him with admiration. These scenes portray how, similar to Mack’s character, Moxy is willing to befriend Little Bird, despite being unsure of some of his behaviours. This is a highly positive message to send to typically-developing child viewers of the program. Additionally, Moxy is often seen praising Little Bird and attributing their mission’s success to him. She says, “Good job, Little Bird! The things that are different about you SAVED OUR MISSION!”. Moxy and Little Bird’s relationship provides an opportunity for child viewers to witness a compatible and supporting friendship between a typically-developing character and one with special needs.

The Admirable is the character who takes on the role of explaining autism to the general viewers. He looks straight at the camera and describes the general definition, symptoms, and statistics of autism to the audience, rather than the other characters (Appendix B, lines 2-3). He is often smiling and is quite animated. “The Admirable” is portrayed by a different celebrity guest each episode and in this episode, the character is played by actor and writer, Matt Lucas.

Main Themes

In terms of themes, much like the other shows, the central themes of this episode revolve around friendship, uniqueness, and acceptance.

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

Friendship. The idea of friendship is strongly emphasized in this episode. This is shown through the friendship of Mack, Moxy, Trooper Charlie, and Little Bird. Trooper Charlie and Little Bird are constantly included in the mission to save the Great Helpee. Throughout the episode, the characters work together to figure out and explain Little Bird's behaviours. They make an effort to really get to know Little Bird, rather than shunning him for being "different". The positive effects of the attitude shown by the other characters are evident as Little Bird and Trooper Charlie seem content and comfortable throughout the episode. Even when Little Bird does not respond to the others straight away, they simply ask questions in a respectful manner in order to decipher the cause for Little Bird's seeming nonchalance.

Many typically developing children can learn from the idea of including children with autism in their daily activities even when it may seem as if they are not interested. Children with autism may not have the skills necessary to promote positive social interaction, even if they may wish to interact with others. Thus, it may appear as if they are not interested in playing with their peers, when in fact, it can be possible that they simply need encouragement to help them interact with their peers. Positive reactions from peers can encourage children with autism to interact with their peers more frequently, and can also help in their self-esteem and their general psychosocial well-being.

Uniqueness and Acceptance. The idea of the positivity of being unique is promoted throughout the episode. Although Little Bird behaves differently than what the others are used to, they do not react in a negative manner, rather they strive to understand his personality and characteristics, and treat him with respect in the process. The facial reactions of the others are important and significant as they are often seen smiling and have generally a positive and friendly approach towards the characters with autism. In other words, the fact that Little Bird and

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

Trooper Charlie have autism is seen as being a unique part of their being, rather than treated as an “illness” or “disorder”. Furthermore, not once is autism shown as being something “bad” or something to be sad about. When the characters find out that Little Bird and Trooper Charlie has autism, they never feel bad for them. Rather, they consistently praise them for saving the day. For instance, there are many instances in which Little Bird is a great help in their mission.

Furthermore, the characters with autism on this show are not victimized. Not once do they look miserable or sad at their condition.. When Little Bird is rearranging the branches in his nest, this repetition may seem unusual or tedious, yet the writers made him appear perfectly content repeating this action multiple times. This is important as characters with autism in film portrayals are often victimized or seen as “helpless” (Ayala, 1999). The characters of Little Bird and Trooper Charlie are anything but helpless in this episode and show how children with autism can make positive contributions to society. Their characteristics, rather than being a hindrance to their well-being, make them unique. At the same time, it is important that not too much pressure is placed on children with autism to display these savant-like talents. For instance, as mentioned earlier, research conducted on portrayals of autism in film, shows how characters with autism are often shown as being heroes and overcoming great odds.

Explanation of Autism. As previously mentioned, The Admirable is the character who explains autism to the general audience. While he does mention symptoms that are particular to Trooper Charlie by saying, “Trooper Charlie has autism. He might communicate differently” (Appendix B, line 2), he over-generalizes some of Trooper Charlie’s symptoms to the wider population of children who have autism, for example, when he says, “...kids with autism really like screens” (Appendix B, line 3). His statement implies that *all* children with autism really like screens when that may not be the case.

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

A highly positive aspect in regards to the show’s explanation of autism, however, is the accompanying video of real-life children with autism towards the end of the episode. The children in these video clips are in various settings and with different profiles. One child is seen with an aide and has his eyes closed and arms moving repeatedly. Other children, by contrast, are seen without the use of an aide and following their class independently. These video clips reflect the diversity of autism and show that two children with autism can have contrasting symptoms.

Series: *Arthur*

Episodes: “When Carl Met George” (S10E06a), “Buster Spaces Out” (S14E10a), “Baseball Blues” (S16E07a), “Ladonna Compson: Party Animal” (S17E02b), “Go Fly a Kite” (S17E07b), “Brain Freeze” (S17E10b), “Carl’s Concerto” (S19E07a), “He Said, He Said” (S20E03a).

Introduction and Background

Arthur is an animated children's television program which aired its first episode in 1996. Arthur is an eight-year old anthropomorphic aardvark who is surrounded by friends and family, all residing in the fictional town of Elwood City. Although Arthur appeared as the main character in most of the initial episodes, the writers dedicated entire storylines to the supporting characters as the series progressed. A positive aspect of this change has been that, through the lives of the supporting characters, many forms of diversity have been increasingly highlighted in the episodes, including poverty, death, and gender equality. For instances, a holiday special featured many supporting characters celebrating their own respective religious holidays and/or cultural practices. Holidays such as Hanukkah and Kwanzaa have been featured in this episode. In addition, some episodes shed light on disabilities. Marina Datillo, a nine-year-old

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

anthropomorphic rabbit was featured in the episode, where it was revealed that she was legally blind. One of the series’ supporting characters, George, is an anthropomorphic moose who has dyslexia. Due to the diverse and sensitive topics featured in Arthur throughout the series, it is no surprise that the topic of autism and Asperger syndrome is featured through Carl Gould, an eight-year old anthropomorphic rabbit diagnosed with Asperger syndrome. The first episode to feature Carl was “When Carl Met George”. This episode aired on April 5th, 2010, three days after “World Autism Awareness Day” which falls on April 2nd of each year (DeVibiss & Lee, 2014). Carl appeared in many subsequent episodes which have been used for analysis in the present study.

Physical Appearance of Character with Autism



Figure 3- Carl

Carl is an eight-year old male anthropomorphic rabbit who wears glasses. Similar to the format of the show, in which all of the characters wear the same outfit throughout the series, Carl is consistently seen wearing a light blue t-shirt with grey pants.

DSM-V Criteria for ASD

Deficits in Social Communication and Interaction. Similar to Julia and Little Bird, Carl is seen not immediately responding when other characters initiate a conversation with him

(Appendix C, line 1). In addition, he appears to have difficulty with non-verbal communication. In one scene, for example, George introduces himself and sticks out his hand in order for Carl to shake it. Carl is shown being visibly uncomfortable and does not respond to George's gesture (Appendix C, line 4). In a separate scene, George extends his hand after saying "thanks Carl" and Carl mistakenly believes that George is asking for something (Appendix C, line 52).

Additionally, Carl is shown being unable to comprehend the use of sarcasm and/or linguistic expressions. In the episode "When Carl Met George", George expresses his willingness to "hang out" with Carl to which Carl immediately responds, "Hang out of what?" (Appendix C, line 6). George is confused by Carl's response and says, "Wait, you're pulling my leg". Carl responds to this by saying, "No I'm not, I'm doing a puzzle" (Appendix C, line 7). Some individuals with Asperger's interpret things literally (Giora, Gazal, Goldstein, Fein, & Stringaris, 2012), and this episode introduced this symptom to a child audience. Familiarizing child viewers with the social and communication deficits individuals with Asperger's may possess is important. Child viewers of this episode may feel less puzzled if confronted with similar situations in real-world, inclusive settings. Subsequently, they may recognize certain social deficits seen in their peers as being a symptom of Asperger's or autism, and consequently, may feel better equipped on managing the situation.

Repetitive Behaviours, Interests, and/or Actions. Carl, in many separate instances in the show, appears to display a resistance to change in his environment. For instance, in one scene, George says, "Carl is a great kid, but he's very particular. If things aren't a certain way, he can get very upset. Like with food". Carl is then depicted at the kitchen table saying, "I can't eat this. The peas are touching the potatoes. Peas are green, potatoes are white". In his introductory episode, Carl specifies to his mother that he wants "Apple juice in a box, not a bottle" (Appendix

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

C, line 10). Additionally, Carl, like many children with Asperger's, was shown to require structure in his day-to-day life. For instance, when practicing for the upcoming concert in the episode "Carl's Concerto", Carl begins putting his accordion away and says, "It's 12:15, so it's time for lunch". George replies by saying, "Well, can we have lunch a little later?" to which Carl replies "It's 12:15, it's time for lunch". He then walks past the others with his lunchbox in hand. In a later scene in the episode, Carl leaves the school in which he performed due to the fact that it was "snack time". The scene ends by showing Carl walking out of the room with his mother, while the audience continues clapping following his performance. This scene depicts Carl's need for structure and his inability to modify his routine in accordance to what is happening around him.

In addition, Carl appears to have stereotyped interests and tends to speak about certain topics in an excessive manner. This was seen with him speaking about trains at various times throughout his introductory episode (Appendix C, lines 2, 5, 14, 17). An important aspect to Carl's character is the portrayal of his meltdown in response to hypersensitivity to his environment. When George took out his wooden puppet, Carl immediately reacted by running to a corner, covering his ears with both hands, closing his eyes, and vocalizing repeatedly (Appendix C, line 11).

Personality Characteristics

Exceptionally- Skilled. One exceptional talent Carl possesses is exceptional memory. For instance, in "When Carl Met George", Carl recalls the exact details of his initial meeting with George: "You're George. I met you Tuesday. You were getting a bottle of glue for your dad" (Appendix C, line 9). Not only does Carl have exceptional memory in respect to social situations, he also displayed an exceptional talent in recalling details of a television show he had previously

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

seen. For example, when describing a scene he had seen, he says, "...then there's a commercial for alphabet cheap spaghetti and silky lock shampoo and used cars and Crosswire Motors and then the show comes back on...". Evidently, Carl has the ability to recall all the minutiae of the episode he had watched, much to the astonishment of the supporting characters in the scene. Similarly, in the episode "Go Fly a Kite", Carl recalls the precise details of the moment he misplaced his kite. He says, "This is my kite. I lost it 22 days ago on Saturday at 11:15 in the morning..."

Musical Talent. Aside from his exceptional memory, Carl possesses a talent for the accordion, a fundamental aspect of his personality. Throughout the episode "Carl's Concerto", Carl is seen possessing a talent for the accordion and is asked to perform for an upcoming play at a local preschool. Additionally, while all others are rehearsing for the play in which they will perform, Carl abruptly ceases to play and says, "It's out of tune. It doesn't sound good. I have to replace one of the reeds, they're at home". This demonstrates his innate musical talent as, simply by hearing the music, he is instantly able to identify the malfunction in his instrument.

Knowledgeable. Carl is highly intelligent and knowledgeable about a variety of topics. This is alluded to in the episode "Buster Spaces Out" in which George introduces Carl to the other characters by saying, "This is my friend Carl. Trust me, you want him on the team. He knows a ton about rocket ships!". In the same episode, the characters are discussing what can be done to improve the flight of their rocket ship. George suggests launching the rocket ship without a parachute to which Carl responds, "The rocket would fall rapidly from a height of 500 metres and shatter into thousands of pieces".

Resilient and Confident. Interestingly, the episode "Carl's Concerto" revealed that Carl gets help for his social and communication difficulties. For instance, when meeting George in the

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

park, Carl says, "It's okay. I'm no longer afraid of puppets. My therapist uses them to coach me on my social skills". Carl is the first character thus far to have been shown to have a therapist. Many children with autism and/or Asperger's require a therapist to assist them with challenges they may have. Early intervention has been shown to be the most effective way in reducing some of the negative symptoms associated with either autism or Asperger's. Due to the fact that the characters analyzed thus far have been portrayed as being in early-middle childhood, it is unfortunate that Carl is the sole character who explicitly states the use of a therapist. Portraying the characters as having additional assistance through the use of therapy shows the effort and determination that the families of children with autism or Asperger's possess when trying to help their children overcome certain challenges. A highly positive feature of Carl's revelation about the use of a therapist is that he appears completely comfortable sharing this information with George. He immediately says, "how...are...you...today...George?". This shows that rather than appearing sad or helpless, he happily shows George his progress.

Another positive aspect regarding Carl's portrayal is his ability to be assertive when appropriate. In the episode "Go Fly a Kite", Carl is shown standing behind a tree and covering his ears while some of his friends are arguing. He then walks up to the group and shouts, "Quiet, you're making too much noise and it's hurting my ears!". This scene is important as it portrays Carl confidently communicating his needs. In a separate scene, Carl is shown answering the phone at his home. Though this may seem like a simple task, this scene carries a strong message. Due to the fact that, as mentioned previously, Carl requires the use of a therapist in acquiring new social skills, it can be deduced that a simple task such as answering the phone may be intimidating for Carl. Additionally, Carl has at one point has a difficult time asking how George is doing, which is shown by his facial expression and need to pause after each word. Thus, Carl

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

answering the phone reflects his strength and resilience in managing his symptoms, a valuable message to transmit to child viewers.

Setting

The writers are successful in portraying Carl in a variety of settings. Interestingly, Carl is only seen in his home environment once, and is never shown in school, a vast contrast to settings of characters with autism depicted in picture books (Belcher & Maich, 2010). He is often seen in an activity center where multiple extracurricular activities are offered (Appendix C, lines 4, 8, 13). A positive portrayal of Carl, in regards to the setting he is situated in, is his presence at many of his friends' houses such as George (Appendix C, lines 1, 18), Buster, and Arthur. Arthur is the only show in the sample to depict a character with autism or Asperger's at the house of another character. This is an excellent aspect to Carl's character as it sends the message that child viewers too can welcome a peer with special needs to a more personal setting such as their homes. This can foster more interpersonal relationships between typically-developing children and those with autism or Asperger syndrome.

In the episode "Brain Freeze", Carl is seen standing in line waiting for ice cream at the opening of a new ice cream shop in their town. He is shown for a few seconds, however these seconds carry a lot of weight in terms of the message the writers are trying to send to the audience. As mentioned previously, characters with disabilities can often come across as being helpless and vulnerable (Ayala, 1990). Contrarily, in this scene Carl is integrating into society and his Asperger's does not prevent him from engaging in age-appropriate activities.

Additionally, he is standing in line without any of his friends or an adult to assist him. This is a highly positive portrayal as this reflects Carl's confidence and his ability to be independent.

Supporting Characters

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

George is Carl's closest friend and a significant part of Carl's life. They first met at an activity center when George was asked to get something in another room by the teacher (also his father). In the room, George met Carl who was sitting at a table working on a puzzle (Appendix C, line 4). Initially, George was quite apprehensive in regards to Carl's behaviours. As mentioned previously, when George extends his hand to greet Carl, Carl does not reciprocate the gesture (Appendix C, line 4). George's feelings of discomfort around Carl are exacerbated following Carl's meltdown (Appendix C, line 12). George felt it was due to his ignorance regarding Carl's symptoms that led to the meltdown. This is similar to Big Bird's character who believed it was his fault when Julia was experiencing a similar situation. Furthermore, in the episode, "Carl's Concerto", George is apprehensive that Carl's strict routines and behaviours are interfering with his ability to practice for an upcoming concert. George has many feelings of confusion and guilt upon his initial interactions with Carl, however he is able to overcome his confusion due to his efforts in gaining adequate knowledge about Carl and about Asperger's in general. For example, the last scene of the "When Carl Met George" highlights the evolution of their relationship. Carl looks at the camera and says "It was nice meeting you!" to which George replies, "I taught him that...he taught me to speak quietly, be clear, and not to take it personally if he ignores me" (Appendix C, line 18). This is important as it displays the mutual respect that has developed between Carl and George and how they are both learning from each other.

Alan or The Brain is an anthropomorphic bear who received his nickname "The Brain" due to his above-average intelligence. In the episode, "When Carl Met George" Brain briefly describes Asperger syndrome to George, citing his uncle as having Asperger's as well (Appendix C, line 12). The Brain narrates a pivotal scene in which George experiences, through a daydream sequence, what it feels like to have autism. Although The Brain makes a brief appearance in

Carl's life, he plays a crucial role in helping George transform his perspectives about Carl and Asperger syndrome in general.

Finally, Carl's mother is seen to be close to him and is the one who comforts him during his meltdown. She is calm and reassuring and explains that Carl has Asperger syndrome to George (Appendix C, line 11).

Main Themes

Acceptance. Similar to the preceding programs, the episodes in the Arthur series analyzed in this thesis emphasize the importance of acceptance. Time and again Carl is shown surrounded by his friends and is included in many of their extra-curricular activities. Carl's introductory episode "When Carl Met George" is, in many scenes, narrated by George and the entire episode is shown through his perspective. From this, it can be deciphered that the purpose of this episode was to highlight the many ways in which typically-developing children can foster a mutually positive and supportive relationship with a child diagnosed with autism.

Perseverance. Although it can be said that all of the characters with autism in the present sample display perseverance in their own respective ways, the perseverance displayed by Carl is more pronounced. As previously mentioned, Carl mentions his use of a therapist to aid him in his social skills. Moreover, he is seen practicing his communication skills, despite the fact it appears to be difficult for him. This visible display of perseverance is a vital aspect of Carl's character and displays the reality of how concepts which may seem effortless for some children, such as asking a peer "how they are doing", may prove to be challenging for children on the autism spectrum.

Explanation of Asperger Syndrome. Asperger syndrome is explicitly described in Carl's introductory episode, "When Carl Met George". As previously mentioned, this is depicted

through a daydream sequence in which George is imagining what it feels like to have Asperger syndrome. The character “The Brain” is narrating the story and several key moments stand out in his explanation. For instance, he says that having Asperger’s is “as if you are on another planet ...You have a hard time understanding what others mean even though you have the same language ...You wish scientists back on earth would give you a guidebook on this strange plane...You might learn to fit in, but you will always feel a little different” (Appendix C, line 12).

Discussion

In this section, implications of the findings and analyses of the texts for child viewers – *Sesame Street*’s “Meet Julia”, *Mack and Moxy*’s “A Spectrum of Possibilities”, and *Arthur*’s episodes that include the character Carl – is discussed. The analyses derived from the data provided insight into the ways in which autism is being represented on children’s television programming.

Sesame Street. Introducing a sensitive topic such as autism to an audience of young children is not a simple task, yet *Sesame Street* succeeds in portraying Julia in an engaging, positive, and non-stereotypical manner. *Sesame Street* has done an outstanding job in explaining Julia’s differences due to her diagnosis, while simultaneously emphasizing the reality that every child is different. The message this episode portrays is that Julia’s differences need not to be pondered over; rather, she should be celebrated for her uniqueness.

Mack and Moxy. A positive aspect in *Mack and Moxy* is the portrayal of various forms of autism, as there were differences between the two characters with autism themselves. Trooper Charlie appeared to be more verbal compared to Little Bird. Furthermore, as previously mentioned, differences were seen between the children with autism depicted in the video clips

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

nearing the end of the episode. A negative aspect regarding this episode is the lack of challenges shown by the characters with autism. No meltdowns or significant challenges were portrayed. While the elimination of challenges may be an effort to respect the sensitivities of the target age group of the viewers of the show, it would have been realistic to show some challenges as well, as all children experience difficulties at some point in their lives. Showing Little Bird and Trooper Charlie in challenging situations would make them more relatable. Furthermore, depicting these two characters as being responsible for saving the mission is in line with the research emphasizing the unrealistic portrayal of characters with disabilities as heroic and fearless (Ayala, 1999).

Arthur. Carl is seen integrating with other characters on the show numerous times. In the episode "Ladonna Compson: Party Animal", he is seen sitting with other children in an activity center, working on an arts and crafts project. This is a brief appearance; however, it promotes the idea of acceptance and Carl's willingness to be around peers. The episode "Baseball Blues" is another subtle portrayal of Carl's integration with the other characters on the show. This episode centers on the local baseball team. Various scenes in this episode depict Carl playing baseball with the other members of the team and attending post-game celebrations. This shows how Carl is part of the group and takes part in various extracurricular activities. It is positive that his integration is subtle rather than explicitly mentioned in any episodes, as this portrays that it is not unusual for him to be part of the group. Perhaps the most positive aspect to Carl's portrayal is his appearance in *multiple* episodes, rather than solely in one episode based on his Asperger syndrome. This means that Carl's character was incorporated into a variety of storylines. For instance, in the episode "Baseball Blues", Carl is in the episode, however, he is not the character

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

who needs to resolve an issue. This episode is largely based on Carl's good friend George and his inability to succeed at baseball.

A description of the similarities and differences identified across the three television programs used in the study is provided below. Additionally, these portrayals will be discussed in light of prior research on representations of autism in picture books.

Physical Appearance of the Character with Autism

Race. The characters in the present study take the form of either live-action puppets (Julia), animated anthropomorphic animals (Carl), or, 3D animations of a child and an animal (Trooper Charlie and Little Bird respectively). For this reason, identifying the cultural background of the characters proved to be challenging. Importantly, however, although most of these characters are not human, the culture and race of other characters on these shows *has* been made apparent throughout numerous episodes. To clarify, in the 1990's, Sesame Street featured a segment which portrayed an African American muppet singing about how she loves her hair. This segment was created by one of the show's writers, Joey Mazzarino, who felt compelled to tackle the issue of race upon hearing his adopted Ethiopian daughter express her wish to have long, blonde, straight hair rather than her natural black, curly hair (Davis & Hooper, 2010). This segment, featured in episode 18 of season 42, included muppets who were visibly African American. Similarly, despite the use of anthropomorphic characters, Arthur has many instances which showcase various characters' cultural backgrounds. The character "The Brain" has a dark brown complexion and is shown celebrating the African-American holiday, Kwanzaa. Thus, the physical appearances of the characters on these shows do in fact reflect the race of the characters.

Both the physical appearances of Julia and Carl resemble that of an individual belonging to the Caucasian race. Julia's physical appearance consists of yellow skin, orange hair, and green

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

eyes, while Carl's consists of pale white skin and medium-brown hair. Carl's pupils are black dots, which is the case of each character on the show. In addition, Trooper Charlie's 3D animation is based on the child actor starring in the episode, who is Caucasian. The character of Little Bird, however, is portrayed as an actual bird, thus the coding of race was not applicable in his case. The portrayal of all three characters with autism being Caucasian can affect the perceptions of autism amongst child viewers by sending the false narrative that solely Caucasians are diagnosed with autism.

A study conducted in Los Angeles aimed to examine racial and ethnic differences in regards to the diagnosis of autism spectrum disorders in children aged 3-5 years old (Becerra et al., 2014). The findings revealed increased risks of being diagnosed with autism with and without a comorbid mental retardation in children of foreign-born mothers who were black, Central/South American, Filipino, and Vietnamese (Becerra et al., 2014). Becerra and colleagues additionally found an increased risk in an autism diagnosis for children born to US-born Hispanic and African American/black mothers, compared with US-born Caucasian mothers. Thus, the exclusive use of Caucasian characters with autism in the sample of television programs is baseless. Again, it would be of value to include characters from a variety of races and ethnic backgrounds.

Ayala (1999) in an analysis of 59 children's books featuring characters with disabilities from 1974-1996 argued that Caucasian characters dominate the literature, and the few characters from diverse ethnic backgrounds mainly served the purpose of providing multicultural appeal, rather than displaying specific cultural and/or ethnic practices and traditions. The television shows in the present sample failed to display multicultural representations at the most basic

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

level, which consists of depicting the characters with autism as being from diverse backgrounds simply through their physical appearance.

Gender. There is a greater number of male characters with disabilities compared to female characters in children's literature (Belcher & Maich, 2013). While the present sample is certainly small, three out of the four characters with autism are male. As mentioned previously, males are 4.5 times more likely to be diagnosed with autism compared to females (Center for Disease Control and Prevention, 2016). For both these reasons, the gender bias which exists in television characters with autism is not surprising. There is a female character by the name of Isadora Smackle on the Disney television show "Girl Meets World" who is diagnosed with Asperger syndrome, however, this show is targeted towards an adolescent audience and, for this reason, was not included in this study. Fortunately, the sole female character in this sample, Julia, is the character who has gained the most widespread attention. Since the announcement of her debut on television, there have been numerous articles on well-known media outlets and news organizations regarding her character. American and Canadian organizations such as the Cable News Network (CNN), the Canadian Broadcasting Corporation (CBC) and the critically-acclaimed newsmagazine television program *60 Minutes* have featured stories surrounding the introduction of Julia's character and Sesame Street's decision to shed light on autism spectrum disorder. Through Julia's character, Sesame Street contributed to dispelling the notion that solely males are diagnosed with autism. Nevertheless, future television programs targeted towards an early to middle childhood audience would benefit from including more female characters with autism in order to diversify the representations.

DSM V Criteria for ASD

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

The symptoms portrayed in the sample were a mix from both the “Deficits in Social Interaction and Social Communication” and the “Repetitive Behaviours, Interests, and/or Actions” categories outlined in the DSM V as criteria for ASD.

Deficits in Social Interaction and Social Communication. In the present sample, the most frequent manner in which a deficit in social interaction and/or communication was displayed by the characters with autism was through their unresponsiveness to another character. This was portrayed across all of the three television programs in the sample. A positive aspect to the portrayal of this symptom is the immediate explanation by another character that the character with autism was not *choosing* to be unresponsive, rather, this was a symptom of their diagnosis. In real-life situations, it may be presumed that children with ASD are ignoring others by being unresponsive thus making the inclusion and explanation of this symptom of autism all the more necessary. A praise-worthy aspect in terms of the social interactions and communication of the characters with autism is the range and variety across the portrayals. For instance, Julia and Little Bird in *Sesame Street* and *Mack and Moxy* respectfully are minimally verbal, whereas Carl Gould is verbal. Furthermore, *Arthur* was the sole series to portray the character's inability to comprehend non-literal speech. These representations are positive as they reflect the variations in the social and communications behaviours of children diagnosed with autism.

Despite the many positives, a criticism of these programs is the exclusion of characters that are completely nonverbal. In order to fully showcase the range in the spectrum as far as communication is concerned, future television programs can benefit from including nonverbal characters. Removing this symptom, which is the reality of so many children, is a great disservice to the efforts in spreading autism awareness.

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

Repetitive Behaviours, Interests, and/or Actions. There were many behaviours portrayed which fit the “Repetitive Behaviours, Interests, and/or Actions” category for the DSM V criteria for ASD. Among the behaviours, stereotyped actions such as arm-flapping were portrayed by both Julia in *Sesame Street* and Little Bird in *Mack and Moxy*. One of the most positive aspects in the sample in regards to the symptoms represented has been the inclusion of a meltdown exhibited by both Julia and Carl in *Sesame Street* and *Arthur* respectively. One would expect that a children's show would hesitate in showing the challenges portrayed by children with autism, however, this was portrayed in the present sample in a sensitive, informative, and age-appropriate manner. The ability of children's programs to portray some of the more difficult moments for a child with ASD is highly commendable.

Personality Characteristics

Aside from the portrayal of specific symptoms, an added value to the episodes was the depiction of a variety of personality traits, independent of the characters' autism diagnoses. The personality characteristics portrayed by the characters were varied. For instance, while both Julia and Little Bird were portrayed as being playful, kind, friendly, and enjoying their time spent with peers, Carl, in contrast, was shown to be athletic, confident, and musically talented. The characters with autism exhibiting kindness is an important and positive aspect to the television programs. This depicts how children with autism also have the ability to contribute to their relationships in a positive manner, rather than exclusively being the ones in constant need of assistance and nurturing. This takes the characters with autism out of a role reflecting that of vulnerability.

The differences portrayed in regards to the characteristics is appreciated, however, a commonality and large criticism is the portrayal of exceptional talents exhibited by the

characters with autism. This is consistent with the research conducted on autism in film, in which characters were often portrayed as savants (Belcher & Maich, 2010). Future television shows featuring characters with autism would benefit from portraying characters as having interests that do not necessarily translate to an exceptional skill as this could potentially eliminate stereotypes and misunderstandings about children with autism.

Setting

One of the criticisms in regards to portrayals of autism in children's books has been the inability of authors to portray characters with autism beyond their home or classroom setting (Belcher & Maich, 2010). The present sample of television programs offers a unique perspective by rarely situating the characters with autism in a home or school setting. Instead, the characters in the present sample are seen in a variety of settings such as outdoors playing with friends (Appendix A), a baseball park, a fictional land (Appendix B), and an ice cream shop (Appendix C, line 18). This variation in settings is a positive feature of these programs due to their depiction of characters with autism as partaking in a multitude of activities and pursuing various interests, as opposed to being strictly bound to their homes or schools.

While it is positive that the characters were not exclusively shown in their homes and schools, audiences can benefit from gaining insight into the character with autism's home and family environment. The home and family play a key role in the lives of children. Moreover, families of children with special needs often go to great lengths in caring for these children, thus, learning about the family dynamics of children with autism can help us better understand autism and how it impacts the lives of their families and those around them. Understandably, it is not in the format of *Sesame Street* or *Mack and Moxy* to showcase the home lives of the characters that appear on their respective shows. *Arthur*, by contrast, frequently provides audiences with a

thorough representation of its supporting characters by showcasing their home environments and, more specifically, their familial interactions. Through this portrayal, audiences are afforded a more thorough representation of the character's different contexts. Removing the characters' home and/or family lives takes away a major part of their being.

Supporting Characters

When examining fictional representations of autism in children's television programs, it is imperative to include an analysis of the supporting characters who, although not central in the narrative, play pivotal roles in the lives of the protagonists. The shows in the present sample did not portray the lives of the characters with autism in isolation. Rather, the supporting characters contributed to their stories in both supportive and challenging ways. In the two episodes "Meet Julia" and "When Carl Met George", the supporting characters had as a significant role as the main character with autism due to the storyline largely revolving around typically-developing characters' behaviours towards the protagonist with autism, as well as their general perceptions of autism. Furthermore, their presence enhanced the viewer experience by providing plausible scenarios as to what may transpire in inclusive settings and characters with whom to identify. Although the supporting characters were different across the shows, the roles which the characters enacted were largely similar. Three distinct characterizations can be extracted from the roles of the supporting characters: the companion, the conflicted character, and the teacher figure.

The Companion. The companion is an integral figure in each episode. This character is a same-age peer and plays a key role in the successful integration of the character with autism. In *Sesame Street*, Elmo and Abby Cadabby each share the role of the companion. They are often

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

seen supporting Julia as described closely in the analysis. In *Arthur*, George takes on this role. He is Carl's closest friend and is similarly seen supporting Carl on a variety of occasions. In *Mack and Moxy*, the companion character is Moxy. The companion is often shown verbally praising the character with autism, which is positive for a number of reasons. One, many children with autism become motivated through verbal praise (Goldstein, Kaczmarek, Pennington, & Shafer, 1992). The use of verbal praise by peers can potentially make the children with autism feel content and accepted, both of which is needed in establishing a positive environment for all involved. Importantly, the companions use praise in sporadic and relevant situations, rather than over-praising the character with autism and simultaneously running the risk of portraying him or her as vulnerable and in constant need of external support.

Finally, and most importantly, the companion's role is not limited to providing protection or praise to the character with autism nor are they portrayed as being over-bearing. In many instances, the companion and the character with autism are seen engaging in various activities, typical of childhood friendships. Having the supporting characters take on a role solely consisting of providing assistance to the character with autism creates false expectations. This type of portrayal sends the message that befriending a child with autism involves a one-way friendship based on dependence and neediness, a message which may overwhelm typically-developing child viewers. Instead, the writers of *Sesame Street*, *Arthur*, and *Mack and Moxy* opted to portray the companion characters as being supportive *and* simply having fun and engaging in mutually-pleasant activities with the characters with autism. This positive and natural portrayal of friendship can potentially encourage more diverse childhood relationships.

A final trend of the companion character's role across the three television shows is that they tend to explain the protagonist's autism to the other characters in the episode in a positive,

respectful, and non-judgemental manner. In addition to being a role model for the child viewer, the companion emphasizes to typically-developing child viewers of the programs that they too can be part of the solution in dispelling myths and misjudged notions surrounding autism. Furthermore, this can potentially encourage them to take initiative in regards to spreading autism awareness amongst their peers.

The Conflicted Character. A second role extracted through the analysis in regards to the supporting characters is the role of a character in conflict. This character is willing to befriend the character with autism; however he or she exhibits an initial confusion in regards to certain behaviours portrayed by the character with autism. The conflicted characters in the present sample are as follows: Big Bird in *Sesame Street*, George Lundgren in *Arthur*, and Mack in *Mack and Moxy*. Big Bird's initial response to Julia not responding to his gesture is that of confusion (Appendix A, line 15). George also experiences this confusion upon his introductory meeting with Carl. Similarly, upon seeing Little Bird Mack says, "How are you doing? We are looking for a Great Helpee" to which Little Bird does not respond and continues to rearrange twigs in his nest (Appendix B, line 11). Big Bird and George exhibited an apprehensive reaction to Julia and Carl's meltdowns respectively. Notably, all of the conflicted characters model an evolution in their mindset and demeanour towards the character with autism.

The most positive trait displayed by the conflicted character is their willingness and proactivity in increasing their knowledge about autism. Importantly, their method in advancing their knowledge about autism is easily applicable in a real-life situation. This means that the characters are shown asking questions about autism to individuals with whom they have a trusting and comfortable relationship. This is a great representation of a realistic solution for child-viewers in regards to managing a sensitive or challenging life-situation. Child viewers can

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

learn that by proactively seeking out clarification about autism and asking questions in a respectable manner, they can eliminate misunderstandings they may have and can potentially develop a valuable friendship with a peer diagnosed with autism.

From the supporting characters, the conflicted character is the most significant, simply due to his or her relatability with the child audience. As mentioned previously, child viewers may also feel confused regarding the character with autism's behaviours. Thus, the addition of the conflicted character is beneficial as it reflects the reality of inclusive settings while simultaneously offering practical and feasible solutions on how to develop a respectful demeanour towards a peer with autism.

The Teacher. Finally, the third characterization extracted from the analysis is the character taking on a teacher role. With the exception of Arthur, the teacher figure is an adult. The primary role of this character is explaining autism to the viewers and/or other characters in the episode. Alan in *Sesame Street*, The Brain and Carl's mother in *Arthur*, and The Admirable in *Mack and Moxy* all take on the role of a teacher figure.

All of these supporting characters play an integral role in the lives of the characters with autism. Importantly, there is a combination of both supportive and understanding characters as well as those who initially have a difficult time understanding the character with autism's behaviours. This is realistic and does not sugar-coat the challenges individuals with autism may face in regards to their peers.

Main Themes

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

As seen from the analysis, the television programs in the present sample were comparable in their portrayal of the themes of friendship and acceptance. In an analysis of children's literature featuring characters with disabilities, Mellon (1989) stated that these stories emphasized the ways in which the protagonist was different, rather than highlighting the similarities he or she has with other children (Ayala, 1999). In the present sample, the idea of sameness was emphasized in both overt and covert ways. Showing the characters participating in age-appropriate activities, such as Julia painting and Carl playing baseball, getting ice-cream, and generally spending time with his friends, are all subtle ways which make these characters relatable and similar to other children.

Moreover, in the current sample, the writers did not shy away from portraying the characters with autism as being different, however, they also emphasized overtly how there are many similarities between children with autism and those without. For example, it is mentioned in *Sesame Street* how Big Bird flaps his wings similar to how Julia flaps her arms. A pivotal scene in *Mack and Moxey*, depicts the characters singing the following line: "Even though we all are different, we're all pretty much the same".

Furthermore, the present sample was largely devoid of portraying the characters as "poor little things" or "brave little souls", two distinct and stereotypical roles highlighted in Mellon (1989)'s analysis of disabilities in children's literature (Ayala, 1999). There were no instances in which a supporting character felt pity for the character with autism. Julia and Carl's meltdowns were the most challenging moments portrayed in the episodes, however, rather than feeling pity, the supporting characters sought to *understand* the underlying cause of the meltdown. *Mack and Moxey* was the sole show in which particular scenes and dialogues symbolized a sense of heroic qualities in the characters with autism by identifying these characters as "saving the day". This is

unfortunate as this strengthens the stereotype of children with special needs as being fearless and overcoming grand challenges.

Moreover, in children's picture books, there appears to be a tendency for authors to portray the character with autism as improving in a short period of time, although this may not always be the case in real-life (Sigmon et al., 2016). In the present sample of television programs, there was no urgency for the characters with autism to improve. Rather, the writers portrayed the manner in which these characters cope with their daily challenges and the different qualities, which make them unique.

How is Autism Explained?

When examining the variability in the portrayals of autism across the television programs, it is vital to analyze the manner in which the diagnosis of autism was addressed. Each program in the present sample has a scene specifically explaining autism to the audience. As previously mentioned, this is done by the teacher figure. The focal point in Alan's statement is his specifying the exclusivity of Julia's symptoms. For instance, he says, "Well...for *Julia*" (Appendix A, line 17). Alan emphasizes how the symptoms portrayed by Julia are specific to her and other children diagnosed with autism need not necessarily show identical symptoms, which is a necessary clarification to make to child viewers of the episode who may not have prior knowledge of autism. In *Mack and Moxy*, the explanation of autism consisted of video clips showcasing real-life children with autism in a variety of settings. The children shown in the video clips all differ in their symptoms with some children shown to have more of a severe form of autism than others. Like *Sesame Street*, these real-life clips spotlight the variety of autism. By contrast, the writers of *Arthur* opted to include an imaginary sequence explaining autism in simple words from the point of view of a child with Asperger's. This allows audiences to

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

understand autism from the perspective of an individual diagnosed with the disorder and the accompanying imagery is helpful for child viewers to better understand the symptoms of autism. Furthermore, the explanation of autism in “When Carl Met George” provides an explanation of how others perceive the diagnosis. In the explanation, it is mentioned, “Hopefully, people on the planet can begin to understand you better” (Appendix C, line 12). This is important as it allows typically-developing audiences to reflect on their behaviours towards individuals with autism, which can in turn help develop a more positive and understanding attitude towards autism in general.

The explanation of autism across the television shows highlighted the variation in autism. Each individual program had its unique way to present autism, which was carried out in a respectful, sensible, and age-appropriate manner. Future children’s shows would benefit from similar variations in their explanations about autism.

The differences between portrayals of autism in children's picture books and children's television shows were seen in regards to gender, themes, setting, and other character's roles. Similarities were seen with respect to race and symptoms portrayed. The implications for these comparisons is that future educators, teachers, and parents can choose which tool to use when introducing the topic of autism in their classrooms or homes. Books and television shows, as mentioned previously, are highly influential tools in spreading awareness about autism, thus, it is imperative to provide an account of the representations of autism in these mediums.

Conclusion

The genre of television programming in this sample showcased variety in representations of autism in regards to the gender, setting, and personality characteristics. Moreover, the inclusion of both light-hearted *and* challenging moments reflects the reality and diversity of autism where some children may have a more difficult time coping in their environments compared to others.

The content analysis revealed that the programs in the present study were intended for typically-developing children, which is positive as this helps bridge the gap of the lack of autism awareness programs specifically dedicated towards this population. The main theme across all of the episodes was embracing diversity and emphasizing how children with autism may appear different, but the reality is that every child is different and needs to be respected in order to ensure a positive and supportive environment

A particularly relevant finding was the variety showcased in the roles of the supporting characters. Rather than having all the supporting characters misunderstand the character with autism, or on the other extreme, portraying all the characters as being exceptionally supportive, there was a combination of both supporting and conflicted characters in the present sample. This balance helped ensure that the character with autism was not perceived by the audience as victimized or unrealistically supported by every character they encountered. Showing every supporting character on the episode as misunderstanding the character with autism would highlight the character's differences, whereas having every character being immediately supportive and accepting would not be an accurate portrayal as this is not always the case for children with autism in real-life situations.

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

Moreover, the range of the supporting characters can allow audiences who know a child with autism in real life to relate to one of the many roles represented. Consequently, the supporting characters' roles can allow audiences to readjust their perceptions and attitudes towards a child who has been diagnosed with autism in order to ensure the utmost positive and supportive relationship with the child.

Limitations

A limitation of this study is the small sample size, which consisted of three television programs; however, these were the texts that were available and accessible. For instance, a television program titled "Dinosaur Train" fit the selection criteria to be included in this study, however, the program was not accessible for viewing, online or otherwise, and therefore was impossible to include in the analysis.

A second limitation of this study is that the interpretation of these television programs was from the researcher's perspective. A child or a parent viewing the programs may offer a different outlook. Future studies can offer analyses of these programs from other perspectives, including and importantly, a child's vantage point.

Finally, a third limitation of this study is the exclusive use of North American and English-language based programs. During the data collection process for this study, preschool-aged programs featuring characters with autism from other countries were not found, however, it is likely that television programs in other countries and languages would fit the selection criteria. Cultural attitudes on disabilities, education, and access to resources are some of the many reasons perspectives on autism may differ depending on geographical location. Therefore, children's programs from other countries which feature characters with autism may present different portrayals compared to what was seen in the sample in the present study.

Future Directions

This research analyzes portrayals of autism by assessing various facets in the representations such as: race, gender, symptoms and personality characteristics, roles of the other characters, setting, and main themes. Future research could focus on the impact of these educational television programs by assessing the shifts in perceptions of autism among typically-developing children following a viewing of one of the programs and by expanding the sample to include difficult-to-access texts and texts across countries and languages.

Educational Implications

This research builds upon the existing literature on a) portrayals of autism in film and television shows, and b) depictions of autism in children's picture books by filling the gap and analyzing portrayals of autism in children's television programs. Having an in-depth analysis of portrayals of autism in children's programs is crucial as autism prevalence rates are increasing, making autism awareness targeted towards typically-developing children more essential than ever before. Moreover, this research identifies the pros and cons of the existing portrayals which can help inform future creators on how best to introduce autism in future television programs in an innovative and sensitive manner and, most importantly, by paying particular attention to the variation in the representations. In addition, educators and parents can choose the tools (i.e. books, television programs) which they feel may be best suited for use in their classrooms and homes.

References

- Anderson, D. R., Lavigne, H. J., & Hanson, K. G. (2013). The educational impact of television. *The International Encyclopedia of Media Studies*, 5(3), 29. doi: 10.1002/9781444361506.wbiems134
- Artman-Meeker, K., Grant, T.O., & Yang, X. (2016). By the book: Using literature to discuss disability with children and teens. *TEACHING Exceptional Children*, 48(3), 151-158. doi:10.1177/0040059915618195
- Autism awareness month and world autism day — April 2015. (2015). *Morbidity and Mortality Weekly Report*, 64(11), 276-278.
- Avramidis. E., & Kalyva, E. (2007). The influence of teaching experience and professional development on Greek teachers' attitudes towards inclusion. *European Journal of Special Needs Education*, 22(4), 367-389. doi:10.1080/08856250701649989
- Ayala, E.C. (1999). "Poor little things" and "brave little souls": The portrayal of individuals with disabilities in children's literature. *Literacy, Research, and Instruction*, 39(1), 103-117. doi:10.1080/19388079909558314
- Baird, G., Cass, H., & Slonims, V. (2003). Diagnosis of autism. *British Medical Journal*, 327(7413), 488-493. Retrieved from: <http://www.bmj.com/>
- Barrett, W., & Randall, L. (2004). Investigating the circle of friends approach: Adaptations and implications for practice. *Educational Psychology in Practice*, 20(4), 353-368. doi: 10.1080/0266736042000314286

- Bedrossian, L. (2015). Understand autism meltdowns and share strategies to minimize, manage occurrences. *Disability Compliance for Higher Education*, 20(7), 6-6. doi: 10.1002/dhe.30026
- Beecher, C.C., & Darragh, J.J. (2011). Using literature that portrays individuals with autism with pre-service teachers. *The Clearing House: A Journal of Educational Strategies, Issues, and Ideas*, 84(1), 21-25. doi:10.1080/00098655.2010.496811
- Becerra, A.T., von Ehrenstein, S.O., Heck, E. J., Olsen, J., Arah, A.A., Jeste, S.S.,...Ritz, B. (2014). Autism spectrum disorders and race, ethnicity, and nativity: A population-based study. *Pediatrics*, 134(1), 63-71. doi:10.1542/peds.2013-3928
- Bolkan, S., & Gordon, J.A. (2016). Neuroscience: Untangling autism. *Nature*, 532(7579), 45-46. doi:10.1038/nature17311
- Busby, R., Ingram, R., Bowron, R., Oliver, J., Lyons, B. (2012). Teaching elementary students with autism: Addressing teacher challenges and preparation needs. *The Rural Educator*, 33(2), 27-35. Retrieved from: http://www.nrea.net/The_Rural_Educator
- Cahill, M., Bigheart, J. (2016). What can librarians learn from Elmo, Sid, and Dora? Applying the principles of educational television to storytime. *Knowledge Quest*, 44(3), 48-57. Retrieved from: <http://knowledgequest.aasl.org/>
- Cook, A., Ogden, J., & Winstone, N. (2016). The experiences of learning, friendship and bullying of boys with autism in mainstream and special settings: A qualitative study. *British Journal of Special Education*, 43(3), 250-271. Retrieved from: [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1467-8578](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1467-8578)

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

- Davis, L., Hooper, J. (2010). 'I Love My Hair' Video Inspired by Father's Love of Daughter. *ABC News*. Retrieved from: <http://abcnews.go.com/WN/sesame-street-writer-inspired-daughter-creates-love-hair/story?id=11908940>
- DeVilbiss, E. A., & Lee, B. K. (2014). Brief report: trends in US National autism awareness from 2004 to 2014: the impact of national autism awareness month. *Journal of autism and developmental disorders*, 44(12), 3271-3273. Retrieved from: <https://www.ncbi.nlm.nih.gov/labs/journals/j-autism-dev-disord/>
- Dyches, T.T., Prater, M.A., & Cramer, S.F. (2001). Characterization of mental retardation and autism in children's books. *Education & Training in Mental Retardation & Developmental Disabilities*, 36(3), 230-243. Retrieved from: <http://daddcec.org/Publications/ETADDJournal.aspx>
- Engstrand, R.Z., Roll-Pettersson, L. (2014). Inclusion of preschool children with autism in Sweden: Attitudes and perceived efficacy of preschool teachers. *Journal of Research in Special Educational Needs*, 14(3), 170-179. doi:10.1111/j.1471-3802.2012.01252.x
- Frederickson, N., & Turner, J. (2003). Utilizing the classroom peer group to address children's social needs: An evaluation of the Circle of Friends intervention approach. *Journal of Special Education*, 36(4), 234-245. doi:10.1177/002246690303600404
- Gaffney, M., & Wilkins, J. (2016). Selecting picture books featuring characters with autism spectrum disorder: Recommendations for teachers. *International Journal of Inclusive Education*, 20(10), 1024-1031. doi:10.1080/13603116.2016.1145262
- Ganea, P.A., Pickard, M.B., & DeLoache, J. S. (2008). Transfer between picture books and the real world by very young children. *Journal of Cognition and Development*, 9(1), 46-66. Retrieved from: <http://www.tandfonline.com/loi/hjcd20>
- Garner, A., Jones, S., & Harwood, V. (2015). Authentic representations or stereotyped 'outliers':

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

- Using the CARS2 to assess film portrayals of autism spectrum disorders. *International Journal of Culture and Mental Health*, 8(4), 414-425. doi:
10.1080/17542863.2015.1041993
- Giora, R., Gazal, O., Goldstein, O.F., Stringaris, A. (2012). Salience and context: Interpretation of metaphorical and literal language by young adults diagnosed with Asperger's syndrome. *Metaphor and Symbol*, 27(1), 22-54. doi:10.1080/10926488.2012.638823
- Goodall, E. (2014). Supporting teachers' journeys towards full inclusion of students on the autism spectrum in New Zealand. *The Journal of the International Association of Special Education*, 15(2), 130-141. Retrieved from: <http://www.iase.org/>
- Greenfield, P. M. (2014). *Mind and media: The effects of television, video games, and computers*. Psychology Press.
- Hannam, K. c. (2014). The portrayal of autism in film, post Rain Man. *Good Autism Practice*, 15(1), 91-99. Retrieved from: <http://www.bild.org.uk/our-services/journals/gap/>
- Harper, L. I. (2016). Using picture books to promote social-emotional literacy. *YC: Young Children*, 71(3), 80-86. Retrieved from: <http://www.naeyc.org/yc/>
- Hartley, S. L., Papp, L. M., Blumenstock, S. M., Floyd, F., & Goetz, G. L. (2016). The effect of daily challenges in children with autism on parents' couple problem-solving interactions. *Journal of Family Psychology*, 30(6), 732-742. doi:10.1037/fam0000219
- Healy, S., Judge, J. P., Block, M. E., & Kwon, E. H. (2016). Preparing adapted physical educators to teach students with autism: Current practices and future directions. *Physical Educator*, 73(1), 97-109. Retrieved from: <https://js.sagamorepub.com/pe>
- Hodge, R. I. V., & Tripp, D. (1986). *Children and television: A semiotic approach*. Stanford University Press.

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

- Humphrey, N., & Symes, W. (2010). Perceptions of social support and experience of bullying among pupils with autistic spectrum disorders in mainstream secondary schools. *European Journal of Special Needs Education, 25*(1), 77-91. Retrieved from: <http://www.tandfonline.com/toc/rejs20/current>
- Kelley, J., Cardon, T.A., & Algeo-Nichols, D. (2015). DSM-5 autism spectrum disorder symptomology in fictional picture books. *Education & Training in Autism & Developmental Disabilities, 50*(4), 408-417. Retrieved from: <http://daddcec.org/Publications/ETADDJournal.aspx>
- Kalyva, E., & Avramidis, E. (2005). Improving communication between children with autism and their peers through the 'Circle of Friends': A small-scale intervention study. *Journal of Applied Research in Intellectual Disabilities, 18*(3), 253-261. Retrieved from: [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1468-3148](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1468-3148)
- Kendall, L., & Taylor, E. (2016). 'We can't make him fit into the system' parental reflections on the reason why home education is their only option for their child who has special educational needs. *Education 3-13, 44*(3), 297-310. doi:10.1080/03004279.2014.974647
- Kiefer, B. (2008). Visual images in children's picture books. *Shattering the Looking Glass: Challenge, Risk, and Controversy, 257-269*.
- Kurtts, S.A., & Gavigan, K.W. (2008). Understanding (dis)abilities through children's literature. *Educational Libraries, 31*(1), 23-31
- Lam, K.S., & Aman, M.G. (2007). "The repetitive behavior scale-revised: Independent validation in individuals with autism spectrum disorders". *Journal of Autism & Developmental Disorders, 37*(5), 855-66. doi:10.1007/s10803-006-0213-z
- Lynch, A. (2014). Disability exclusion and rights: The life story of Alice Jamieson. *Journal of*

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

Social Inclusion, 5(1), 78-84. Retrieved from:

<https://josi.journals.griffith.edu.au/index.php/inclusion>

Mackenzie, M., Cologon, M., & Fenech, M. (2016). 'Embracing everybody': Approaching the inclusive early childhood education of a child labelled with autism from a social relational understanding of disability. *Australasian Journal of Early Childhood*, 41(2), 4-12. Retrieved from: <http://www.earlychildhoodaustralia.org.au/our-publications/australasian-journal-early-childhood/>

McCandless, B. (2017). How "Sesame Street" Created Julia, the New Muppet with Autism. *CBS News*. Retrieved from: <https://www.cbsnews.com/news/julia-first-sesame-street-muppet-with-autism/>

Meyer, L. E., Ostrosky, M.M., Yu, S., Favazza, P.C, Mouzourou, C., van-Luling, L., & Park, H. (2016). Parents' responses to a kindergarten-classroom lending-library component designed to support shared reading at home. *Journal of Early Childhood Literacy*, 16(2), 256-278. doi:10.1177/1468798415577870

Murrow, W.R. (2006). *Sesame Street and the Reform of Children's Television*. Baltimore, MD: JHU Press.

O'Connor, E. (2016). The use of 'Circle of Friends' strategy to improve social interactions and social acceptance: A case study of a child with Asperger's Syndrome and other associated needs. *Support for Learning*, 31(2), 138-147. Retrieved from: [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1467-9604](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1467-9604)

Ostrosky, M., Mouzourou, C., Dorsey, E., Favazza, P.C, & Leboeuf, L. (2015). Pick a book, any

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

- book: Using children's books to support positive attitudes toward peers with disabilities. *Young Exceptional Children*, 18(1), 30-42. doi:10.1177/1096250613512666
- Pritchett, P., & Pound, R. (2005). The stress of organizational change. *Pritchett, Dallas, TX*.
- Prot, S., Gentile, D. A., Anderson, C. A., Suzuki, K., Swing, E., Lim, K. M., ... & Liao, A. K. (2014). Long-term relations among prosocial-media use, empathy, and prosocial behavior. *Psychological science*, 25(2), 358-368. Retrieved from: <http://journals.sagepub.com/home/pss>
- Rowley, E., Chandler, S., Baird, G., Simonoff, E., Pickles, A., Loucas, T., & Charman, T. (2012). The experience of friendship, victimization and bullying in children with an autism spectrum disorder: Associations with child characteristics and school placement. *Research in Autism Spectrum Disorders*, 6, 1126-1134. doi:10.1016/j.rasd.2012.03.004
- Sanders, James Ladell (2009). Qualitative or quantitative differences between Asperger's disorder and autism? Historical considerations. *Journal of Autism and Developmental Disorders*. 39(11), 1560-1567. doi:10.1007/s10803-009-0798-0
- Schipul, S.E., & Just, M.A. (2016). Diminished neural adaptation during implicit learning in autism. *Neuroimage*, 125, 332-341. doi:10.1016/j.neuroimage.2015.10.039
- Sciutto, M., Richwine, S., Mentrikoski, J., & Niedzwiecki, K. (2012). A qualitative analysis of the school experiences of students with Asperger syndrome. *Focus on Autism and Other Developmental Disabilities*, 27(3), 177-188. Retrieved from: <http://journals.sagepub.com/home/foa>
- Speaks, A. (2011). Light it up blue
- Sigmon, M.L., Tackett, M.E., & Azano, A.P. (2016). Using children's picture books about

AUTISM IN CHILDREN'S TELEVISION PROGRAMMING

autism as resources in inclusive classrooms. *The Reading Teacher*, 70(1), 111-117. doi:
10.1002/trtr.1473

Smith, P. K., & Brain, P. (2000). Bullying in schools: Lessons from two decades of
research. *Aggressive behavior*, 26, 1-9. Retrieved from:
[http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1098-2337](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1098-2337)

<https://www.cbsnews.com/news/julia-sesame-street-new-muppet-autism-2/>

Stiegler, L. I. (2015). Examining the echolalia literature: Where do Speech-Language
Pathologists stand?. *American Journal Of Speech-Language Pathology*, 24(4), 750-762.
doi:10.1044/2015_AJSLP-14-0166

Wang, K.H.F. (2015). From Broadway to Big Bird: Behind the Scenes of with Sesame Street's
Alan Muraoka. *NBC News*. Retrieved from: <https://www.nbcnews.com/news/asian-america/broadway-big-bird-behind-scenes-sesame-streets-alan-muraoka-n387456>

Zablotsky, B., Bradshaw, C.P., Anderson, C.M., & Law, P. (2013). Risk factors for bullying
among children with autism spectrum disorders. *Autism*, 18(4), 419-427. Retrieved from:
<http://journals.sagepub.com/home/aut>

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

Appendix A

Data and Coding: Sesame Street

Series: Sesame Street

Episode: Meet Julia, season 47, episode 15

Scene	Setting	Action	DSM-V Criteria for ASD	Personality Characteristics	General Comments
1. Julia is painting with Abby	Outdoors			Enjoys painting Participating in an activity with a friend	
2. Alan: “More paper guys?” Abby and Elmo answer him and say “thank you” while Julia is looking down and continues painting.			D-SISC		
3. Alan (looking at camera): “ <i>oh hey welcome to Sesame Street</i> ”.					
4. Abby and Elmo: “ <i>hey!</i> ” Julia continues looking down at her painting.			D-SISC		
5. Big Bird enters scene. Big Bird: “ <i>Hi</i> ”			D-SISC		

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

<p><i>everyone!"</i> He looks at Julia. Big Bird: <i>"Oh, who's this?"</i> Elmo: <i>"This is our friend Julia"</i> Big Bird: <i>"Oh hi Julia, I'm Big Bird. Nice to meet you".</i> Big Bird extends his hand (to shake Julia's hand) and Julia continues drawing and does not look up. Big Bird: <i>"Oh...Julia?"</i> Alan: <i>"Julia's just concentrating on her painting right now"</i></p>					
<p>6. Abby squishes the paint in her hand but stops when Julia looks at her and makes an incomprehensible vocalization</p>		<p>Julia makes a grimace and an incomprehensible vocalization</p>	<p>R-BIA (Hyper- or hypo reactivity to sensory input)</p>		
<p>7. Abby: "I'm sorry, I know you don't like the</p>					<p>Abby aware of Julia's needs</p>

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

<p>way it feels”. Julia shakes her head and continues painting</p>					
<p>8. Alan to Julia: <i>"And that's why a paintbrush works for you ...there's lots of ways to paint!"</i></p>					<p>Alan aware of Julia's needs</p>
<p>9. Big Bird: <i>"May I see your painting Julia?"</i> Julia continues to paint.</p>			D-SISC		
<p>10. Big Bird: <i>"umm...Julia?"</i> Alan: <i>"Sometimes it takes Julia a while to answer. It helps to ask again".</i></p>					<p>Alan explaining Julia's behaviours to Big Bird</p>
<p>11. Alan leans down to Julia’s level and says, <i>"Can Big Bird see your painting?"</i> Julia: <i>"See your painting? Yes"</i></p>			D-SISC	<p>Julia's painting is very detailed.</p>	
<p>12. Julia: "Fluffster!" and hugs a plush</p>		<p>Flaps her arms</p>	<p>R-BIA (Stereotyped or repetitive</p>		

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

bunny that is in her hand.			motor movements)		
13. Julia looks at Abby after Abby compliments her with an open-mouthed smile and giggles.		Flaps her arms	R-BIA (Stereotyped or repetitive motor movements)		
14. Big Bird: <i>“Yeah, (laughs), you’re really good at painting. High-five Julia!”</i> Julia doesn’t respond. She continues giggling with Abby and proceeds to walk away		Flaps her arms	D-SISC R-BIA (Stereotyped or repetitive motor movements)		
15. Big Bird: <i>“Huh? High-five?”</i> (sighs)					Big Bird experiencing a conflict
16. Big Bird to Alan: <i>“I don’t think Julia likes me very much”</i> Alan: <i>”Oh no. You two are just meeting for the first time”</i> Big Bird: <i>“Oh...so she’s shy. I get that, I feel shy</i>					

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

<p><i>sometimes too”</i></p>					
<p>17. Alan: "Well, with Julia, it's not just that. You see, she has autism. She likes it when people know that" Big Bird: "Autism? What's autism?" Alan: "Well, (looks at camera) for Julia, it means that she might not answer you right away"</p>					
<p>18. Elmo: "Yeah, Julia doesn't say a lot". Alan: "That's right. And she may not do what you expect. Like give you a high-five" Abby: "yeah! She does things just a little differently. In a Julia sort of way"</p>					
<p>19. Big Bird: "Ooh, okay" Abby: "aaand she's A LOT of fun!" (looks at sky</p>				<p>Playful Enjoys being with friends</p>	

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

with both arms stretched) Elmo: “ <i>Yeah, (laughs), Julia likes being with a friend. Oh, and she loves to play too!</i> ”					
20. Julia comes in saying, “ <i>Play, play, play! (giggles)</i> ” Abby: “ <i>You want play now?</i> ” <i>Julia: “Play, play, play!”</i>		Flaps her arms	D-SISC R-BIA	Playful	
21. Elmo: “ <i>Ok, we can all play together!</i> ” Alan: “ <i>That’s a great idea!</i> ”					Positive environment

Appendix B

Data and Coding: Mack and Moxy

Series: Mack and Moxy

Episode: “A Spectrum of Possibilities” season 1, episode 7

Scene	Setting	Action	DSM V Criteria for ASD	Personality Characteristics	General Comments
1. Trooper Charlie appears in scene and says “ <i>Hi</i> ”	At the headquarters				
2. The Admirable:					The Admirable

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

<p><i>"Trooper Charlie has autism. He might communicate differently".</i></p>					<p>takes on the role of explaining autism to the audience</p>
<p>3. The Admirable: <i>"He likes to have fun and play with his friends just like every kid. Kids with autism really like screens"</i></p>					<p>Generalization: "Kids with autism really like screens"</p>
<p>4. Trooper Charlie is shown watching the "discadoo" (an electronic device shown on the show)</p>					
<p>5. The discadoo is showing them where to find "the Great Helpee" (something they need to find in each episode). Trooper Charlie nods. Alert comes on and various sounds and lights appear.</p>					
<p>6. Mack, Moxy, and Trooper Charlie breakout into a song and dance.</p>					<p>Mack and Moxy are very kind to Trooper Charlie and include him in all they do</p>

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

Trooper Charlie is dancing in sync with the rest of the cast.					They all seem very friendly with each other
7. They all go to "Helpee Land" and turn into 3D animations.	"Helpee Land"				
8. Mack, Moxy, and Trooper Charlie are all stuck on a branch. Mack tells them to jump on the count of three. They all jump holding each other's hands and jump		Smiling		Happy	3D Trooper Charlie seems to be slightly different than the real-life Trooper Charlie he is based off of. The slight difference that I see is that he is constantly smiling. He also seems to be showing more eye-contact?
9. Mack lands on the ground while Moxy and Trooper Charlie land on Mack. Moxy explains how their landing did not hurt her nor Trooper Charlie.		Smiling		Good friends with Mack and Moxy Integrating well	Moxy is especially kind to Mack
10. They spot Little Bird in the distance. Little Bird is in a nest on a tree. Little Bird: "Twig goes here, twig goes there" (repeats this).		Smiling	R-BIA		
11. Mack: "How			D-SISC		Mack is confused

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

<p><i>are you doing ? We are looking for a Great Helpee". Little Bird does not reply and instead continues playing with the twigs saying, "Twig goes here, twig goes there". Mack is confused as the Little Bird continues arranging the twigs</i></p>			R-BIA		regarding Little Bird
<p>12. Moxy: "<i>Why won't Little Bird look at us or talk to us?"</i>".</p>					Moxy is also confused
<p>13. Trooper Charlie: "<i>I think Little Bird has autism. When I was a child, I also didn't talk to people but I also got better at it"</i>".</p>					Trooper Charlie is explaining autism to Mack and Moxy . I love that there is a character who has autism who is explaining autism to the others. This is the first show to do that thus far
<p>14. Moxy: "<i>It's all good. We can still be friends!"</i>".</p>					Moxy seems unfazed that Little Bird has autism and makes it known that they all can "still be friends"
<p>15. Trooper Charlie: "<i>Yes we can!"</i>"</p>					Trooper Charlie agrees with Moxy that they can all still be friends

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

<p>16. Little Bird turns around and looks at him. Then looks at the discadoo. Trooper Charlie: <i>"Wanna take a look?"</i>. He hands the "discadoo" to Little Bird</p>					<p>Trooper Charlie is very helpful and friendly to Little Bird. Trooper Charlie is helping Little Bird, even though Trooper Charlie has autism himself. Not seen before</p>
<p>17. Little Bird takes the "discadoo" and says, <i>"want to take a look?"</i></p>		Smiling			
<p>18. He opens the "discadoo" and says, "CPU goes there, graphics chip goes there"</p>		Smiling		Knowledgeable	
<p>19. Shelfish Sheldon is in the distance and he is wondering how to snatch the "discadoo". He ends up snatching it with a gadget he has and Mack, Moxy, Trooper Charlie, and Little bird make shocked/surprised facial expressions. Little Bird continues playing in the</p>		Smiling	R-BIA		

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

nest with twigs and seems not to care that the screen was taken from him.					
20. Moxy: "How are we going to remember where the red circle was?". Trooper Charlie: "It's do north. I memorized the map". *Puts finger on temple*			Photographic memory		
21. Moxy: " <i>Way to go, Trooper Charlie! Little Bird, want to come with us?</i> "					Moxy is very kind and is often shown verbally praising Trooper Charlie and Little Bird She also makes an effort here to invite Little Bird with them
22. Little Bird: "Want to come with us?". He flies on top of Moxy's head. Mack: " <i>To the north! Which is that way</i> ".			R-BIA	Integrating well with group Very comfortable with Moxy	
23. Little Bird flies off and lands on a musical rock and "plays" it. Mack: " <i>Little Bird likes the music</i> ". Little Bird looks at Mack				Enjoys music (repeatedly "plays" the rock)	

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

<p>at the mention of his name.</p>					
<p>24. Little Bird keeps "playing" the rock and they all break into a song. First lines of the song are: "Even though we all are different. We're all pretty much the same". Trooper Charlie and Little Bird are singing too.</p>				<p>Both Trooper Charlie and Little Bird are integrating well with the rest of the characters</p>	<p>This is more of an educational moment and, at times, the two characters with autism break out of their character in order to educate the audience. The main message of the song is that it's ok to be different (very similar to song played in "Meet Julia" episode of Sesame Street.</p>
<p>25. Moxy: "<i>We need the clue</i>". Little Bird: "<i>Need the clue</i>".</p>			<p>R-BIA</p>		

Appendix C

Data and Coding: Arthur

Series: Arthur

Episode: “When Carl Met George” season 13, episode 6a

Scene	Setting	Action	DSM V Criteria for ASD	Personality Characteristics	General Comments
1. Introductory scene setting the story for the episode. Carl does not respond to George.	George's room		D-SISC		
2. Carl speaking at length about animals and trains			R-BIA	Knowledgeable	
3. Scene displays a painting made by Carl				Artistic	
4. George extends his hand when introducing himself. Carl does not respond.	Activity Center		D-SISC		
5. Carl is speaking at length about trains				Knowledgeable	
6. George: " <i>Maybe we can hang out sometimes</i> " Carl: " <i>Hang out of what?</i> "			D-SISC		
7. George: " <i>Wait, you're pulling my leg</i> "			D-SISC		

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

Carl: "No I'm not. I'm doing a puzzle"					
8. A few scenes later. Carl to George: "You didn't have a backpack with you last time"	Activity Center			Good Memory	
9. Carl: "You're George. I met you Tuesday. You were getting a bottle of glue for your dad"				Good Memory	
10. Carl and his mother discuss his snack. Carl to his mother: "Apple juice in a box, not a bottle"			R-BIA		
11. George pulls his wooden puppet out of his backpack. Carl gets scared and runs to a corner. Carl's mother calms Carl down. She tells George not to worry and that Carl has Asperger syndrome.		Repeated vocalizations Eyes closed Hands covering his ears	R-BIA		George becomes very anxious and does not know how to react to Carl's meltdown.
12. George seeks advice from Alan about Carl as he is at fault for Carl's meltdown. Alan notifies George that his uncle had Asperger's and he describes him as "sort of a genius" The Brain: "It's as if you are on another planet." People talk	Ice cream shop				Alan is explaining Asperger's to George. Alan labels his uncle as a "genius" In the form of a daydream sequence. Explaining Asperger's to the general audience by providing

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

<p><i>loud...you have a hard time understanding what others mean even though you have the same language... things that seem hilarious to you aren't funny at all to them... you wish scientists back on earth would give you a guidebook on this strange planet ...so you have to learn things all on your own...one thing in particular captures your interest so you study just that... hopefully people on the planet begin to understand you better... you might learn to fit in but you will always feel a little different”</i></p>				<p>examples on what it feels like. Simplified for target audience</p>
<p>13. Carl to George: "Hello George. Are you looking for glue?"</p>	<p>Activity Center</p>		<p>Good Memory</p>	<p>Evolution in Carl and George's friendship. Carl initiating a conversation with George.</p>
<p>14. Speaking about trains</p>			<p>Knowledgeable</p>	
<p>15. George tells Carl he brought him something. Carl: "If it's a wooden giraffe I</p>				<p>George feeling more comfortable around Carl.</p>

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

<p><i>don't want it!"</i> George gives Carl a piece of a puzzle which he left earlier.</p>					
<p>16. Carl begins speaking about trains (he is working on a train puzzle)</p>					
<p>17. Carl's mother: <i>"Carl, can you say thank you?"</i> Carl continues speaking about trains</p>			D-SISC	Knowledgeable	
<p>18. In the final scene Carl: (looks at camera) <i>"It was nice meeting you!"</i> George: <i>"I taught him that...he taught me to speak quietly, be clear, and not to take it personally if he ignores me"</i></p>	George's room	Waving his hand			Evolution in George and Carl's relationship Acceptance

AUTISM IN CHILDREN’S TELEVISION PROGRAMMING

Data and Coding: Brain Freeze

Series: Arthur

Episode: Brain Freeze, season 17 episode 10b

Scene	Setting	Action	DSM V Criteria for ASD	Personality Characteristics	General Comments
19. Carl is waiting in line for ice cream	Outside Ice Cream Shop			Independent	Good integration shown Not about his symptoms Showing him engaging in activities typical for a child of his age