

Comparing Indigenous Approaches to Autism with Western Approaches to Autism

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On United Nations World Autism Day 2015, UN Secretary-General Ban Ki-moon encouraged policymakers, professionals, employers, service providers, and caregivers to create an inclusive society by recognizing the strengths of people with autism, instead of focusing on their weaknesses (para. 6). Unfortunately, more than 80 per cent of adults with autism are unemployed globally (2015, para. 11). In order to reach World Autism Awareness Day's goal of empowering people impacted by autism it is imperative to challenge Western society's medical model of autism as a disease with the empowering Navajo view of autism as a beautiful difference. This envisions people with autism as a source of social capital instead of a social burden raising awareness into Library and Information Studies. The World Health Organization supports librarians' roles by claiming that "E-learning approaches, and innovative models for engaging" (Ki-moo, 2014, para. 11) people with autism to share their valuable experiences through a variety of digital mediums can be facilitated by library professionals. Librarians can challenge societies' stereotypes of autism through helping people impacted by autism to share their stories through creating online digital stories, digital library collections or websites. This paper addresses these objectives through the following steps: Firstly, autism and transformative learning will be defined in the context of the research questions. Secondly, a comparative analysis of case studies will be given. Thirdly, the healing stories within these case studies will be synthesized through transformative learning. Fourthly, future research implications for library and information studies will be critically analyzed.

Context of Definitions and Research Questions

In exploring the research questions of the transformative stories of people with autism, it is important to work from a solid definition of autism and transformative education/learning. Autism and autism spectrum disorders (ASD) are defined as a neurological developmental disability that impacts development in areas of social, verbal, and nonverbal communication (Grandin & Attwood, 2012, p. 35). According to the Center for Disease Control and Prevention, ASD affects as many as 1 in 110 children (Autism and Developmental Disabilities Monitoring Network Principal Investigators, 2002, as cited in Grandin & Attwood, 2012, p. 11). Autism is considered a "broad spectrum disorder" in that it manifests itself very differently in each individual. On one end of the autism spectrum, people with severe autism may be nonverbal, have significant cognitive challenges, be socially isolated, and engage in repetitive behaviors such as hand-flapping or rocking (Grandin & Attwood, 2012, p. 21). These are stemming behaviours people with autism use to block out sensory noises and flashing lights from artificial sources. Dr. Temple Grandin describes her autistic sensory overload difficulties from busy shopping malls and grocery stores as "being inside a rock concert speaker" (Grandin, 1996, p. 5). Noises from far away bells and automobiles are heard as loudly as nearby noises and people talking directly to a person with autism (Grandin & Attwood, 2012, p. 25).

On the other end of the autism spectrum, individuals with high-functioning autism or Asperger's syndrome may have good language skills, above-average intelligence, and a keen interest in particular subjects. Though symptoms vary tremendously from person to person, the three main

areas affected are social interaction and communication, sensory integration, and repetitive patterns of behavior. Since autism and ASD have diverse impacts on people, I argue that a transformative approach to learning is required to meet the diverse needs of a diverse population. Transformative education/learning is defined as the:

Transmission of new knowledge, skills, and ways of thinking. It awakens the learner to a new manner of viewing and examining the world. The learner develops autonomous thinking skills and an accommodating view of the world. Transformative learning can involve any combination of spiritual, political, emancipatory, or developmental components.

(Daloz, 1999; Dirkx, 1998; Dirkx et al., 2006; Esperat et al., 2008; Merriam et al., 2007, Mezirow, 1997, Kitchenham, 2008, as cited in Phillipi, 2010, p. 41).

Transformative learning has also been described in a diversity of contexts ranging from formal education to mountain-top experiences (Merriam, Cafferella & Baumgartner, 2007).

Transformative education enables people to learn new roles, and develop confidence through the “reintegration, and renegotiation of relationships” (Kitchenham, 2008; Mezirow, 1991, as cited in Phillipi, 2010, p. 41). I argue that the renegotiation of relationships required in realizing the strengths of people with autism is challenging the neo-liberal technocratic ideology that there is nothing technology cannot fix with the Indigenous ideology that there is nothing that nature cannot fix (Toh, 1993, p. 11). Based on this ideology is biologist Janine Benyus’ (1998) science of biomimicry. Biomimicry studies nature’s models and then imitates or takes inspiration from these processes to solve human problems. It is a new way of viewing and valuing nature based on what we can learn from nature rather than what we can extract from nature (Benyus, 1998, p. 7).

Principles of Biomimicry

<u>Humans Need</u>	<u>Nature Needs</u>
Sunlight	Sunlight
Clean air	Clean air
Clean water	Clean water
Vegetables and Fruit	Animals & Insects eat Vegetables and Fruit

Chart adapted from Benyus, J. M. (1998). *Biomimicry: innovation inspired by nature*. New York: Quill, 1998.

Many Western education systems have students spend the majority of their time in buildings with florescent lights sitting at desks listening to a teacher or typing at a computer. Artificial lights, sounds and bells accompanied by peer pressure noises contribute to sensory-overload problems for people with autism. Challenging this pedagogy with biomimicry nurtures a sensory relationship with nature and living organisms on a level that does not threaten a person with autism.

For the purposes of this paper, I consider animals to be part of nature because they are living organisms. Each case study reveals how they find relief from sensory overload and strengthen their social skills when they interact with people and animals in nature. It is important to

examine how people with autism tell their stories in order to find their commonalities to tailor better programs. This can improve their self-esteem; transform their self-concept and society's perception of autism. The following questions will be explored in the case studies:

1. How can sharing stories transform society's perception of autism?
2. How can sharing autism stories improve self-esteem or self-concept?

The people with autism in the following case studies share the commonality of strengthening their social skills through interacting with others in nature.

Comparative Analysis of Case Studies

Rupert Isaacson sees autistic children's mysterious connection to animals as a gateway into a family healing journey through adventures with animals (Isaacson, 2009). Isaacson was inspired with this because his son with autism only calmed down from his inconsolable tantrums when he was on top of a horse. Isaacson's discovery of his son's mysterious connection to animals urged him to explore autism as a gateway into healing. Isaacson arranges for an interpretative guide to escort them visit two Mongolian healers. The first healer reveals that Kristin's grandmother put black energy into her womb hurting Rowan, so she tells Kristin to wash her bare perineum with sacred water. The healer whips the parents on the back and instructs them not to scream. Their tears reflect their guilt over Rowan as they embrace and the healer instructs them in daily prayer ceremonies. Rowan calls the guide's son his Mongolian brother. The guide tells his son to join them to the next healer who encircles Rowan's aura with his hands (Isaacson, 2009, p. 137).

Suddenly, Rowan goes to the toilet for the first time and then plays with other children. Isaacson eventually builds a horse riding camp for children with autism and a resource website. Isaacson claims that while his camp does not cure autism, it does help children with autism to overcome extreme tantrums, incontinence, while learning to communicate and socialize with their peers. Through Isaacson's and his wife's adventure parents can learn that in treating autism, it is imperative to treat the family holistically.

The Dream Catchers Program also provides therapeutic horseback riding for people with autism. In a calm pastoral natural equestrian pasture, children with autism are able to learn to communicate with the horse (Ward, & Whalon, et.al., 2013, p. 2191). The Dream Catchers program instructor taught riding skills, including prompting children verbally and nonverbally, creating a structured routine, breaking riding tasks down into smaller steps, incorporating visual supports, and utilizing verbal and/or nonverbal scripts so children with autism could immediately and actively participate (Ward, & Whalon, et.al., 2013, p. 2195). Routines that occur regularly and incorporate roles, scripts, and structure provide support and make it possible for children with autism to develop new skills (Ward, & Whalon, et.al., 2013, p. 2197). This study researched the relationship between therapeutic riding and the social communication and sensory processing skills of 21 elementary students with autism attending therapeutic riding as part of a school group (Ward, & Whalon, et.al., 2013, p. 2198). Teacher ratings indicated that participating children with autism significantly increased their social interaction, improved their sensory processing, and decreased the severity of agitation and other negative autistic symptoms.

This evidence demonstrates that therapeutic horseback riding can benefit children with autism and can be considered as an effective form of therapy. Children with autism can build confidence in their communication skills. Parents and autism professionals can learn new communication and coping strategies.

Dr. Temple Grandin was fortunate that her high school science teacher inspired her to develop her visual abilities to pursue animal science. As Grandin developed strengths in visual architecture and animal communication, she began to appreciate her autistic abilities because they enabled her to develop the humane handling of livestock and to teach people about autism. Grandin claims that she is grateful for her autism and “if someone could magically remove [her] autism, [she] would not want [her] autism removed” (Grandin, 1996, p. 75). Her coping strategies evolved from watching her aunt’s cattle calm down in the cattle squeeze machine used for giving vaccinations. She also felt calmer when working with cattle. Grandin designs a similar squeeze machine to calm herself down. Eventually, after Grandin graduates she completes her PhD in animal science. She overcomes cruel male patriarchy in the cattle industry through designing humane livestock slaughter systems even after male cattle handlers smear bull testicles on her truck. Her insight into animal behaviour gives readers insight into autism. Grandin’s interactions with animals reveal how the development of autistic strengths builds a positive self-concept for people with autism. Just as Temple Grandin’s autistic abilities became a positive contribution to humanity, professionals can help other people transform their autistic abilities into positive contributions to humanity.

Unfortunately not all people with autism have a teacher like Grandin’s science teacher who can help them develop their strengths. In Brodie Morin’s case, he needed a trained service dog because his autism was so high on the spectrum, he was not letting any of his family members into his world (Pavlidis, 2008, p.54). Brodie’s father stated that “Brodie did not want to have anything to do with human beings. We were good targets. But he had compassion for the dog. The dog taught him love and happiness” (Pavlidis, 2008, p. 55). Brodie was finally able to leave the house and attend kindergarten with his dog Shadow. Shadow is a black Labrador trained through Canada’s National Service Dog program. The program advocates for families to convince schools to allow service dogs into the classroom. Specific rules are when the dog is in his/her harness jacket only the child with autism and the educational assistant are allowed to speak and touch the dog. In Brodie’s case he was tethered with Shadow’s leash in a way that appeared that Brodie was holding Shadow’s leash. There was also an attachment leash for parents and the educational assistant. If Brodie would escape at recess, Shadow would nudge the assistant and then cuddle Brodie in a way that prevented him from leaving and calmed him down. Once Brodie escaped at three a.m. and Shadow found him. The program also teaches dogs how to search and rescue.

Misfortunes such as Toby Turner’s required transformative educational environments that nurture his autistic abilities. Vikky Turner’s son with autism, Toby, was kicked out of school for striking his teachers. Toby felt so guilty that he told his parents he wanted to kill himself (Fifield, 2012, p. 132). Toby tried to jump out of his bedroom window several times. Then Sox, a golden retriever, came into Toby’s life. Sox was trained by the British charity Dogs for the Disabled as a service dog for children with autism. Sox transformed Toby’s need to hide under his headphones, sunglasses and cap when he went outdoors into Toby socializing with people they walked by

and telling them about Sox (Fifield, 2012, p. 135). In a sense, Sox rescued Toby from social isolation through remaining by Toby's side and helped him to improve his confidence and his attitude towards school. Toby's story reveals the therapeutic value a pet can have for a child with autism. Toby's love for Sox teaches society that people with autism who struggle with suicide and aggression can develop self-worth and communication skills through caring for a pet.

Jonny Hickey had a similar lifesaving experience when his dog Xena came into his life. Jonny's greatest help with his autism came from helping Xena regain her health after she was abandoned by her previous owner (Hickey, 2013, para. 4). When Xena was found she was so emaciated that the veterinarian gave her a one per cent chance of survival (Hickey, 2013, para. 7). Linda Hickey, Jonny's mother, believes that Jonny rescued Xena from her pain and Xena rescued him from his autistic symptoms of fearing social interactions (Hickey, 2013, para. 5). Xena and Jonny shared an immediate connection. Xena's loyalty of remaining by Jonny's side affected him profoundly (Hickey, 2013, para. 8). He rarely spoke before she arrived, but with Xena, he began to open up. He talks all the time with Xena around and is not afraid to try new things or walk outside with Xena. Linda believes that Johnny and Xena were able to help each other at a level beyond human understanding.



Xena had a one per cent chance of survival when she was found. Jonny loved her back to health (Image Credit Linda Hickey, 2013, para. 7).

This reveals that Jonny has a higher capacity for developing trusting relationships than the expectations indicated in the Western medical model's description of autism. Parents and autism professionals can adopt abandoned dogs and find pet training resources from this website more quickly than obtaining a trained service dog through NSD which involves long waiting lists. This story of companionship fosters hope for parents and their children with autism. Jonny's love for Xena can enable society to see people with autism through the lens of humanity instead of disease.

Monica Holloway's shares a similar learning journey with her four-year-old son Wills who has autism. Wills does not begin to communicate until a golden retriever dog named Cowboy joins their family. As Cowboy reaches out to other children, Wills reaches out to other children too. Soon, the boy who could not speak is sharing stories of his new "sister" Cowboy in kindergarten class (Holloway, 2009, p. 29). Instead of running away from children at the park, now Wills talks to them with pride. Cowboy helps Wills to summon up the courage to invite classmates over to his house. Wills overcomes his fear of water by swimming with Cowboy in the family pool (Holloway, 2009, p. 121). This reveals how caring for a pet builds confidence in sharing the pet with others which enhances social skills and social interactions.

Healing Stories Synthesized through Transformative Learning

Andrea Grigore's and Alina Rusu's (2014) research supports the transformative learning experiences of the previous case studies that revealed how a natural social environment of a dog outdoors improves children's social skills and self-esteem. They believe that this is enhanced through the help of a trained service dog and a teacher using the social story method (Grigore, & Rusu, 2014, p. 245). According to Gray (2010), "a social story describes a situation, skill, or concept in terms of relevant social cues, perspectives, and common responses in a reassuring manner that is easily understood" (para. 2). Reading the social story with the children and dog increased social interactions with their teacher (Grigore, & Rusu, 2014, p. 251). Well-trained service dogs in the learning environment of children with autism increases the desired results of the social story objectives that catalyze their social skills (Grigore, & Rusu, 2014, p. 252). Even though researchers do not understand why animals have a positive impact, therapy dogs improve children's self-esteem and communication skills.

Parents can challenge the premise that their children with autism are underachievers through their spirit of seeking adventure through the great outdoors and animal companionship. They consistently integrate Applied Behaviour Analysis with their outdoor pursuits of camping, hiking, and horseback riding (Isaacson, 2009, p. 15). Although doctors tell a mother that her son will never read or write, she notices that when she gave her son a dog, he talked and read to his dog. This great milestone enabled her son to extend these skills into his classroom (Holloway, 2009, p. 215). Parents and autism professionals can benefit from reading these transformative stories that journey into how people with autism learn unconventional communication skills from interacting with animals. Society can respect how people with autism care for their pets.

Parents' struggles with autism are given a reprieve and are transformed into the unique channels of communication shared between animals and children with autism (Grigore, & Rusu, 2014, p. 255). It is through this channel of communication that parents can strengthen their relationship with their children. Parents and autism professionals can reframe how they perceive autism and integrate Applied Behavior Analysis strategies with their children's interactions with their pet. Teachers can enhance this process through integrating a trained service dog using the social story method.

Critical Analysis

The Western medical model portrays people with autism as broken humans who must be fixed to be able to function in society like neuro-typical (normal) people. Whereas the Western medical model portrays autistic people as ill, broken, and in need of fixing, the Navajo perspective portrays it as a form of human diversity with associated strengths and difficulties. The parents of the children with autism in these transformative stories challenge the medical system that advises them to institutionalize their children through integrating Applied Behavior Analysis with their children's pets, therapeutic horseback riding, and outdoor pursuits. They work from the belief in

accepting autism as a difference of strength requiring societal integration instead of treating autism as a disease requiring a cure (Grandin & Attwood, 2012).

Biomimicry values the natural connection that people with autism share with animals in nature's outdoor environment supporting the Navajo epistemology of Hozo which is to walk in beauty with nature (Holiday & McPherson, 2005, p. 84). A cross-cultural analysis between the Navajos and the West toward autism thus enables an examination of the social model of disability, which argues that it is social injustice instead of internal impairment that causes disability (Kapp, 2011, p. 584). The Navajo did not have a word for "disability" until they came into contact with Americans (Kapp, 2011, p. 589). No negative judgments are made on behaviors associated with autism, like spinning and flapping (Connors & Donnellan, 1993). Dr. Temple Grandin believes that spinning, flapping, and other stemming behaviours eventually help the person with autism calm down. Instead of disciplining the children or telling them how not to act, adults lead by example and provide reasons for desirable behavior meeting the cognitive learning needs of people with autism (Müller, Schuler, and Yates 2008).

Grandin has researched transformative stories from people with Autism Spectrum Disorder (ASD) who found successful careers, including tour guide, special-education professor, autism advocate, psychiatric rehabilitation practitioner, Intel program manager, retail employee, freelance artist, nurse anesthetist, aviation writer, psychologist, veterinarian, physician, computer designer, autism consultant, dancer/choreographer, real-estate executive, and advertising agency director (Grandin & Attwood, 2012, p. 59). Their transformative stories reveal their perseverance in challenging negative reactions from people who misunderstood autism by pursuing careers they found on global autism support networks online. For example, Lenora Gregory-Collura runs an autism consulting firm with online support networks. Their community programs involve summer camps and events where people with autism showcase their talents internationally. Although these autobiographies reveal the neurodiversity of autism on the ASD spectrum, they agree that regular experiences with animals and nature help people with autism to develop workforce skills. Learning autism's strengths inspires autism professionals to build better autism support services focused on autistic strengths.

Future Implications for Library and Information Studies

Librarians can facilitate pet therapy events in communities and provide inclusive spaces for service dogs in libraries. Librarians can also create reading displays and staff picks through digitalizing these transformative stories from people with autism. Readers can overcome autistic stereotypes to see people with autism as warm-hearted pet lovers capable of trust and friendship. Children with autism can build self-esteem while their parents and autism professionals learn new creative coping strategies from these transformative stories. Librarians can facilitate corresponding websites and blogs from these transformative authors.

Libraries should be accommodating places for children and teenagers with autism to learn. Libraries are becoming more naturally inclusive places in developing and transitioning countries globally. However, people with autism, and parents of children with autism, may avoid libraries because they can produce anxiety from sensory overload. People with autism are often

overwhelmed by bright lights, loud noises, and other stimuli in a library, which can provoke an anxiety attack. Simply including a small, enclosed, quiet space with dim lighting, neutral colors, and fewer people can give patrons with autism a place to retreat to if they become overstimulated.

Autism-sensitive programs in libraries can provide services that connect communities and engage youth. Unfortunately, children with autism may not be able to participate in these programs because they become overwhelmed. Offering events tailored to children with autism requires librarians to provide inclusive spaces that encourage them to engage in quiet activities involving teamwork instead of competition, or showing movies with the lights on and volume lower to make services more accessible (Stern, 2014).

Many people with autism struggle with verbal communication. This can be overcome by including communicative pictures on signs with written words to help to orientate them. Prompts, routines, task analysis, visuals, and scripts are considered evidence-based teaching practices for children with autism (Ward, & Whalon, et.al., 2013, p. 2197). It is important for librarians to be patient with patrons with autism and sensitive to why they may behave in certain ways. Libraries can work together to create training programs for librarians and communities to understand autism, so that libraries can build inclusive spaces for patrons with autism. This empowers them to develop their autistic strengths which can reveal autism as a source of social capital instead of a social disease.

Conclusion

Library professionals, policymakers, and autism professionals must carefully consider the success stories that people with autism have experienced with animals and nature to use their commonalities to tailor better programs. Their stories share common threads on how people with autism interact with nature and synthesize their unique development of nonverbal and verbal communication. In order to meet the United Nations World Autism Day 2015 goal to recognize the talents of people with autism the World Health Organization should urge Western medical professionals to learn from the Navajos' wellness philosophy of autism as a beautiful difference (hozo) (Kapp, 2011, p. 588). Hozo balances individuality within communities offering more acceptance, inclusion, and support for people with autism than the medical model. Interacting with nature and animals enables people with autism to develop their strengths and a positive self-concept. This enables society to view people with autism as a source of social capital instead of a social problem.

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