

ABSTRACT

An Analysis of the Relational Experiences of Those with Visual Disabilities

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Friendship is universally recognized as necessary to a fulfilling life, as can be seen since the time of Aristotle. The idea of obtaining and maintaining meaningful relationships is so engrained in our society that it is challenging to find a song or book that does not focus on the value of human companionship in some way. While every poet, songwriter, philosopher, and scientist have different opinions on what friendship is, it is still recognized as universally necessary. Friendship manifests itself in innumerable ways in every person's life, making it difficult to quantify, but a field is emerging that studies the physical, mental, and emotional benefits of friendship. This thesis evaluates social support for people who have visual impairments, looking at their social networks and how their daily lives are affected by stigma, ultimately analyzing the humanness of friendship and its ideal forms in societies across the world, as well as how people with visual and other disabilities thrive in a world structured and restricted by social norms.

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AN ANALYSIS OF THE RELATIONAL EXPERIENCES
OF THOSE WITH VISUAL DISABILITIES

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CHAPTER ONE

The Psychosocial Foundations of Friendship

Friendship is universally recognized as necessary to a good and fulfilling life, as can be seen since the time of Aristotle (Aristotle & Ostwald, 1999, p. 214). The idea of obtaining and maintaining meaningful relationships is so engrained in our society that it is challenging to find a song or book that does not focus in some way on friendship or the value of human companionship. Marina Keegan wrote in her renowned essay about the daily complexities of friendship and what they meant to her:

...it's just this feeling that there are people, an abundance of people, who are in this together. Who are on your team. When the check is paid and you stay at the table. When it's four A.M. and no one goes to bed. That night with the guitar. That night we can't remember. That time we did, we went, we saw, we laughed, we felt. (Keegan, 2014, pg. 1)

In a somber interpretation of the everlasting value of friendship, Thomas Gray wrote "Elegy Written in a Country Churchyard" while mourning the death of a fellow poet and friend (Gray, 2751). In the epitaph, Gray writes, "Large was his bounty, and his soul sincere/Heaven did a recompense as largely send:/He gave to Misery all he had, a tear,/He gained from Heaven ('twas all he wish'd) a friend" (Gray, 1751).

What we ultimately desire in life is to know others and be known by them. While every poet, songwriter, philosopher, and scientist have differing opinions on what friendship is, it is still recognized as universally necessary. The theme of friendship and community is seen throughout history in philosophy, literature, music, and more recently, in quantitative research. To know and be known, to love and be loved: that is what we crave, what we need to not just survive, but to thrive. Friendship manifests itself in

innumerable ways in every person's life, making it difficult to quantify, but friendship can still be traced back through history as essential to the human experience.

Aristotelian Ideals

Aristotle said, "No one would choose to live without friends, even if he had all other goods," (Aristotle & Ostwald, 1999, p. 214). In every corner of the earth, friendship is universal (Miller, 2018). The smiles and laughs shared are the same from country to country, between cultures and languages (Lau, 1982). Friendship is necessary for well-being and ultimately survival, and research has shown that having quality friendships with other people is correlated with well-being across the lifespan (Roberts-Griffin, 2011). People who are socially isolated are at a greater risk of developing cardiovascular disease, hypertension, and infectious disease, as high cortisol levels, increased by stress, weaken the immune system and create vulnerability to disease (Brent, et al., 2013). Barth, Schneider, and von Känel (2010) found through searching over 1700 papers in multiple databases (MEDLINE, PsycINFO/PSYINDEX, and Web of Science 2007/03) that low support negatively affects cardiac health, significantly increases the risk of infectious disease, and ultimately affects mortality, but healthy populations were positively affected by more social support. Thus, we are motivated by an innate need to be affiliated with other people. Social support is one of the most effective ways a person may deal with challenging and stressful situations, such as illness, grief, or any number of other trials. Social support, as defined in Hadidi and Al Khateeb (2014), refers to any support received from others that leads a person to believe that they are valued, cared about, and a part of a larger network of other people. Ultimately, the desire for friendship comes down to an inherent desire to belong.

The foundation of research on friendship can be traced back to Aristotle's *Nicomachean Ethics*, where he defined three kinds of friendship. The utilitarian friend ceases to be when the benefit provided by that relationship is no longer needed (Aristotle & Ostwald, 1999). The friend of pleasure is based in emotion, as these friendships end as quickly as they form (Aristotle & Ostwald, 1999). Aristotle defines the third type of friendship, the virtuous, as the perfect form of a relationship. A virtuous friendship is not based purely on benefit or pleasure but on an intrinsic goodness that is seen in the other and wished for in all circumstances. These friends desire the best for each other, for their attitudes are determined by the type of people their friends are and not because of other coincidences (Aristotle & Ostwald, 1999, p. 220). Friendships of virtue combine all of the qualities considered prerequisite to becoming friends, but those qualities are intrinsic to each individual apart from the other (Aristotle & Ostwald, 1999). This philosophy of friendship is a baseline that can be used to understand empirical research on friendship and is often used to define friendship in research.

An Explanation of Friendship

To begin our analysis of friendship, we first should define it. Beverly Fehr (1996, p. 5) wisely noted the difficulties of defining friendship, as it is something that manifests differently for every person. Fehr explained that true friendship is voluntary and personal, something that is typically intimate and can provide aid in times of need, and always mutual between two parties (Fehr, 1996, as cited in Miller, 2018). In its most basic sense, Merriam-Webster Dictionary defines friendship as “the state of being friends” and defines a friend as “one attached to another by affection or esteem, one that is not hostile, a favored companion” (“Friends”, 2018; “Friendship”, 2018). In

friendship, many qualities are expected and desired. A friend is expected to be trustworthy, valuing the other's best interests, a confidant who discloses personal information, supportive in tangible and non-tangible ways, enjoyable to be around, and similar enough that conversation comes with ease (Hall, 2012). Humans, more than other creatures, have an extreme tendency toward homophily in their relationships (Brent et al., 2013). This homogeneity extends beyond attitudes and appearance to social status and age, which explains why people at the top of a hierarchy tend to affiliate with same status peers (Brent et al., 2013). Recent research has discovered a link between similar genotypes and friendship, thus extending this homophily in human interaction to the genetic level (Brent et al., 2013). It is difficult to capture the actualities of friendship in a static definition, as friendship is ever changing. Most individuals have a personal understanding of what friendship is to them, but when it comes to writing out an explicit definition of the concept, most definitions are qualitative and nebulous (Brent et al., 2013). Consequently, it is common in empirical research to define friendship on the basis of the quality and pattern of interaction between pairings or groupings of individuals, making something quite qualitative a bit more quantifiable (Brent et al., 2013).

The Necessity of Friendship

Friendship and social interaction are heavily integrated with the development of a child. Throughout the life cycle, friendships evolve alongside the people involved. In childhood, preschoolers have rudimentary friendships where they pick a favorite playmate at recess or a person with whom they choose to read a book (Miller, 2018). In adolescence, parents change from being the primary company of children to taking a backseat to the child's school or neighborhood friends. A cross-sequential study of 200

white working-to-middle class fifth to twelfth graders in Chicago found that students in fifth grade spent around 35% of their time with members of their family, while seniors in high school spent time with their families only 14% of the time (Larson, Richards, Moneta, Holmbeck, & Duckett, 1996; Miller, 2018). This study included reports of experiences at 16,477 random moments across the lives of these children, and ultimately, the results showed disengagement from the family as a unit but increasingly stable communication with the parents (Larson et al., 2018). Overall, late teens reported feeling more positive about themselves during those family interactions than outside of the interactions (Larson et al., 2018).

Young adults prefer intimacy to isolation, as this is a period of significant life change, which signals a change in relationships (Miller, 2018). By midlife, adults experience dyadic withdrawal, spending significantly more time with a spouse or significant other and less time with individual friends (Miller, 2018). After marriage, couples spend more time with friends shared between them rather than people external to one of the partners (Miller, 2018). By old age, most people have a small, tightknit circle of a few very close friends, a phenomenon explained by socioemotional selectivity theory. This theory states that the interpersonal goals of older adults are different from those of younger people, and that their knowledge of the limited amount of time left to live influences their decisions (Miller, 2018). Thus, older adults will spend more time with people who make them truly happy to make the most of their remaining days (Miller, 2018). This is very different from adolescent friendships, where more friends of lower quality are common. It is also common for friendships to form due to proximity or convenience. For example, baby rhesus monkeys frequently become friends with the

social partners their mothers strategically place in their path (Brent et al., 2013). In a specific group of infant rhesus monkeys on Cayo Santiago, social networks were analyzed via observation, with results suggesting that the social interactions of a mother's young closely reflect those of the mother (Berman, 1982). Similarly, children tend to become friends with the people their parents introduce to them, meaning that parental introduction into the social world plays a key role in a child's development as a socialized person (Brent et al., 2013).

Children who are highly accepted by their peers are more likely to have many friends (Hojjat & Moyer, 2017). Human prosocial behaviors are shown to develop early in life, around ages three to ten (Brent et al., 2013). These early interactions are vital to later success in life, as children who had poor interactions with peers at a young age are less likely to perform well on theory of mind tests later in life (Brent et al., 2013).

Theory of mind is an ability to understand the drives and intentions of other humans (Brent et al., 2013). For example, social isolation in both monkeys and humans has been shown to lead to atypical behaviors socially and otherwise (Brent et al., 2013). Studies have shown that friends become more alike over time and are typically similar in demographics, behavior, and beliefs (Hojjat & Moyer, 2017). They typically live in close proximity to one another (Hojjat & Moyer, 2017). The benefits of meaningful friendships are manifold: friends help with loneliness, as rejection and low quality relationships lead to higher rates of depression and anxiety, as well as decreased self-esteem (Hojjat & Moyer, 2017). It is generally better to have any friend than no friend, but ultimately, it is far better to have just one virtuous, high quality friend over multiple average or below-average friends. In adolescence, friends help buffer the negative effects

of bullying and promote more active school involvement and academic success (Hojjat & Moyer, 2017). The friendship bond is different from the familial bond, as true friendship is not based on blood relation or legal obligation. It also differs from the bond between coworkers, as such bonds are often informal, impersonal, and based on contracts (Hojjat & Moyer, 2017). Friendships are more organic and are not typically based on required interaction, though they may have begun that way (Hojjat & Moyer, 2017).

The Neural Components of Friendship

Research in primates has shown that social tendencies are heritable in various species, humans included (Brent et al., 2013). This places such affiliative behaviors under genetic control, facilitated by the nervous system. For example, the fusiform facial area (FFA) in the inferior temporal cortex controls face recognition in both humans and macaques, and these “face patches” process visual information about faces alone (Brent et al., 2013). Researchers have looked at reward center activation in the brains of people and primates with damage to these areas (Azzi et al., 2012; Watson & Platt, 2012). Social stimuli activate various reward centers of the brain, including the anterior cingulate cortex, the nucleus accumbens, the caudate nucleus, and the orbitofrontal cortex (Azzi, Sirigu, & Duhamel, 2012; Brent et al., 2013; Watson & Platt, 2012). The social environment significantly impacts brain anatomy, seen in monkeys who were given a larger and more connected social network (Brent et al., 2013). The monkeys later showed an increase in grey matter in the mid-superior temporal sulcus and the rostral prefrontal cortex, both of which are involved in social cognition (Brent et al., 2013). Along with these neural components, theory of mind is necessary to an understanding of social interactions (Brent et al., 2013). Lesions in the anterior cingulate gyrus are linked

to deficits in social ability and behavior, and different portions of the anterior cingulate gyrus are activated when a person performs a behavior associated with theory of mind (Brent et al., 2013). Research on the neural components of friendship shows that while certain social and cognitive skills are present from birth, the social environment, especially early in a child's life, plays a key role in fine tuning those inherent abilities and understandings.

Along with the specific neural structures associated with social interaction and friendship, multiple neurotransmitters and major biochemical structures are heavily involved with these processes. A neuropeptide called oxytocin is most commonly known for its role in the maternal bond with a child, which will be discussed later in relation to the stress response, but it is also linked with social memory and recognition (Brent et al., 2013). With exogenous use, oxytocin has been found to increase generosity and feelings of trust toward other individuals, though its effects are not long-lasting and tend to decrease social alertness (Brent et al., 2013). β -endorphin, an opioid, is necessary for forming and maintaining social bonds, and it works in tandem with oxytocin in social interaction (Brent et al., 2013). As shown, endorphins and oxytocin play a vital role in the facilitation and maintenance of interpersonal interactions. Various neurotransmitters, namely dopamine and serotonin, are also involved. Selective serotonin reuptake inhibitors (SSRIs) change the rate of interactions between people, both aggressive and affiliative (Brent et al., 2013). Research in rhesus macaques found that serotonin transport binding in the midline cortex triggers aggressive and friendly traits, which has led to a theory that serotonin plays a mediating role in how an individual both perceives and responds to different social stimuli (Brent et al., 2013). Dopamine affects the

formation of social memories and thus helps individuals create a preference for various stimuli in social situations (Brent et al., 2013). While little is known about human affiliation, neurobehavioral models of reward motivation nearly always include dopamine (Depue & Morrone-Strupinsky, 2005).

In stressful situations, research has shown that the somatic nervous system and the Hypothalamic Pituitary Adrenal (HPA) axis interact to cause avoidant coping through the fight-or-flight response (Taylor, 2006). However, the human tendency to draw together during stressful times contradicts this hypothesis of avoidant coping. In fact, because animals inherently need social interaction, certain biobehavioral responses occur through biological signaling if affiliative needs are not met, resulting in intentional social behavior activities (Taylor, 2006). When an animal seeks out social interaction and is met with hostility or a lack of support, stress responses are heightened. When the animal is met with support and comfort, stress responses noticeably decline (Taylor, 2006). In one study, Siberian hamsters were wounded and exposed to immobilization stress (Detillion, Craft, Glasper, Prendergast & DeVries, 2004). Negative effects of raised cortisol levels and slow wound healing were only seen in socially isolated hamsters, meaning social housing worked as a buffer to the effects of stress (Detillion et al., 2004). Positive interactions reduce the need for continued social interactions, which in turn decrease the stress response (Taylor, 2006). Thus, oxytocin enhances maternal behaviors, lowering HPA axis and somatic nervous system activation in both the mother and the young they nurture. The need for social interactions can best be compared to the need to eat because the neurocircuitries of the brain work more efficiently and other reward-based systems interact positively when affiliative needs are met (Taylor, 2006).

As stated previously, affiliation with other creatures is vital for survival, which supports the hypothesis that there must be biobehavioral responses that monitor deficiencies in social interactions. This can be seen in the interactions between a mother and her offspring. When a securely attached child or young animal is separated from their mother, the offspring may vocalize distress, causing the caregiver to hastily return (Taylor, 2006). Bowlby (1969) was the first to define human theories of attachment, explaining that when a person, particularly a child, is attached to another person, they work to maintain proximity, as that person acts as a safe haven and a secure base from which to explore the surrounding world. These proximity maintaining behaviors are partially due to oxytocin and other brain opioids that reduce separation distress (Panksepp, 1998). Women who experience deficits in their social relationships with family, friends, or pets had measured levels of higher oxytocin, often feeling that their partners or confidants were not supportive or rarely displayed affection (Taylor, 2008). These same results have not been replicated in men, but studies have shown that oxytocin can have similar effects with men (Taylor, 2008). However, this sex difference can be explained through processes of evolution. When the human stress response initially evolved, women were the primary caregivers. Thus, selection pressures supporting the tend-and-befriend hypothesis (in stressful times, animals, including humans, befriend and take care of each other to increase survival chances) were greater for women than men, potentially explaining why oxytocin has a stronger and more consistent effect for women (Taylor, 2006). Additionally, estrogen enhances oxytocin's effect, consistent with evidence that oxytocin plays a greater role in women. Due to this, inferences about the effect of oxytocin on behavior should only be made in relation to women.

Human Flourishing

In both humans and animals, social relationships are vital not just for survival, but also for flourishing. The stress response of the HPA axis acts as a motivational tool for social interaction to occur (Brent et al., 2013). It has been found that the presence of a friend, someone familiar, trusted, and comfortable, reduces cortisol levels even in stressful situations (Brent et al., 2013). Primates with a tight-knit social network have lower amounts of cortisol in samples of fecal matter, which leads to lower baseline cortisol and overall better health (Brent et al., 2013). The reduction in heart rate is a response to social grooming, a completion of a social need (Brent et al., 2013). As such, the HPA axis, oxytocin, and endorphins also play a role in the physical response to a social interaction (Brent et al., 2013).

Definitions and Explanations

It is intrinsic to our very being to have friends, despite any obstacles we may face. Obstacles may be physical, such as blindness or deafness, or they may be intangible, like shyness or anxiety. Human interaction is persistent despite these challenges, but what is it about friendship that makes it innate? Demir and Davidson (2013) found a link between friendship and happiness in humans. Happiness is a broad term that can be defined in a plethora of ways. Ryff (1989) believed happiness to be, shortly, a temporary emotional feeling of well-being, while other researchers use more detailed explanations. Demir and Davidson (2013) used a definition of happiness from Diener, Suh, Lucas, and Smith (1999), stating that happiness is both the affective and the cognitive perceptions one has of their life. This state is increased or diminished by overall life satisfaction, the

presence of positive emotions, and a lack of negative feelings or events (Diener et al., 1999). Diener et al. (1999) used self-report measures as well as experience sampling (i.e., random sampling of moods, emotions, and moments) and a measurement of reactions to emotionally ambiguous stimuli, to assess subjective well-being and happiness. Similarly, individual happiness and satisfaction with friendships is directly related to both the number of friends one has and, importantly, the quality of interactions with those friends (Demir & Davidson, 2013).

Friendship is multidimensional, meaning that a true friendship is not just the giving or receiving of support or feelings of closeness, but also the degree to which the relational experiences of the friendship satisfy various psychological needs (Demir and Davidson, 2013). Wellman (1992) brilliantly explained that to call friendship merely a supportive link is like limiting “one’s worldview to a California hot tub (p. 104)”. In a successful friendship, both parties must capitalize, informing the other about positive events to increase the original happiness experienced from the event (Demir & Davidson, 2013; Gable, Reis, Impett, & Asher, 2004). Demir and Davidson (2013) found that sharing positive experiences and feelings with people we feel close to increases happiness separate from the positive effects of the event. In fact, as Gable et al. (2004) and Gable, Gonzaga, and Strachman (2006) found, how a friend reacts to news of a positive event (i.e., support, validation versus pessimism, annoyance, etc.) is equally important to positive feelings as the event itself. If a friend reacts negatively to another’s declaration of positive news, they may as well have not been present at all. (Gable, Gonzaga, & Strachman, 2006; Gable et al., 2004).

Research shows that being cared for and understood by friends leads to better psychosocial outcomes (Demir & Davidson, 2013), but there are varying kinds of capitalization that can come from close friends, each having a different response. If a friend is authentically enthusiastic and supporting, they are said to be active and constructive. If they support the discloser in a quiet, understated way, they are said to be passive, but still constructive. If they verbally point out the negative in the situation, the friend is said to be actively destructive. If they do not show any interest in the event or ignore its existence entirely, they are said to be passive and destructive. In a healthy, ideal friendship, the goal is to be active and constructive, or even passive and constructive, but a friend should never be actively or passively destructive.

How a person feels their friend responds to a disclosure of information influences their subjective feeling of mattering. Mattering, explained by Demir and Davidson (2013), is not defined by the quantifiable quality of the relationship but an individual's perception of their relevance to the other person in the relationship, either a friend, spouse, or parent. A person determines their subjective mattering in a friendship by comparing this relationship with previous ones, comparing the amount of attention the friend pays to them personally versus the amount of attention they pay to other friends and activities, and through the quality of relational experiences (Demir & Davidson, 2013).

Self-Determination and Other Theories

Self-determination theory examines how and why people perform certain behaviors and how those specific behaviors affect their psychosocial well-being (Demir & Davidson, 2013). Within this theory falls basic needs theory, which explains the three

universal and essential human needs: autonomy, competence, and relatedness (Ryan & Deci, 2000). Deci and Ryan (1985) define autonomy as feelings of agency and self-initiation, competence as feeling capable, and relatedness as feeling connected to others in a meaningful way (Ryan & Deci, 2000). In order to achieve what is called optimal well-being, all of these needs must be met (Demir & Davidson, 2013). Among a diverse sample of 152 college students at the University of Missouri and 200 students at Hanyang University in South Korea, these needs were rated as the top most important needs for that age group (Sheldon, Elliot, Kim, & Kasser, 2001). In this study, students attended group sessions led by a research assistant during which they filled out a comprehensive questionnaire packet (Sheldon et al., 2001). Results suggest that a healthy and thriving friendship is one in which both parties feel competent and independent and experience high amounts of relatedness with each other (Sheldon et al., 2001).

Conclusion

This chapter has discussed some of the many facets of friendship, including its definitions, neural components, attachment and self-determination theories, and the link between friendship and happiness. The following chapters analyze the relational experiences of people afflicted by visual disabilities ranging from blindness to visual agnosias. Friendship is an innate part of human nature, and it persists despite all obstacles, as can be seen through the lives of those affected by visual disabilities.

CHAPTER TWO

Visual Disabilities as They Relate to Friendship

Before analyzing the interpersonal experiences of people affected by visual disabilities, we must first describe the various visual impediments to relationships. We must also define the pathological form of relationships (i.e. what does friendship look like to someone diagnosed with a visual agnosia?). A visual impairment or visual disability can be defined as a term that encompasses not only blindness, but also low vision (Corn & Lusk, 2010, pg. 13). There are numerous varieties of visual disability, including glaucoma, cataracts, and albinism, but this chapter will focus primarily on blindness and visual agnosias, specifically prosopagnosia.

Blindness

Blindness affects approximately one in 28 Americans over the age of 40, and the prevalence will increase in the next 20 years or so as the older population continues to age (Congdon, 2004). Cassin (2006), along with The American Foundation for the Blind, divided blindness into multiple subsets (Key definitions of statistical terms, 2007). The limitations of blindness and general vision loss include difficulties reading, traveling, and cooking, as well as troubles with independent self-care (Cassin, 2006; Key definitions of statistical terms, 2007). Legal blindness, a level set by the United States government, is defined as central visual acuity that is less than 20/200 with correction, or a visual field of less than 20 degrees (Cassin, 2006; Key definitions of statistical terms, 2007). A diagnosis of legal blindness determines a person's eligibility for disability benefits.

Someone with measurable vision but difficulty accomplishing various visual tasks with the help of corrective lenses is considered to have low vision (Cassin, 2006; Key definitions of statistical terms, 2007). Low vision, unlike legal blindness, can be managed with the help of visual aids, innovative strategies, and environmental modifications (Cassin, 2006; Key definitions of statistical terms, 2007). Total blindness is a person's inability to see at all with either eye (Cassin, 2006; Key definitions of statistical terms, 2007). Vision loss is defined both as total blindness and minimal visual difficulty that requires minor corrective lenses (Cassin, 2006; Key definitions of statistical terms, 2007).

A Study of Blindness: Publicly Educated Blind Students

Many studies have been conducted with adults and adolescents who suffer from various visual disabilities. Peavey and Leff (2002) performed a study with several blind students, cataloging their experiences and recording how they grew together. Their research supported the commonly held theory that visually impaired students who are publicly educated within the same general curriculum as the rest of their peers are more likely to lead isolated lives (Peavey & Leff, 2002). This can be attributed to many factors, such as the school system's dependence on visually oriented teaching and activities, or issues of stigma. Sighted students often have incorrect notions about visual impairments, leading to unwanted pity for the student with a visual impairment that results in a change in the way that student is treated. When this happens, the visually impaired student may feel as though they are never fully understood or accepted by their peers. The Individuals with Disabilities Education Act (IDEA) was put in place and reauthorized in 2004 to help with these disparities, aiding inclusion of educational

opportunities for students with visual impairment, but improvement is still needed (Peavey & Leff, 2002).

A Case Study of Blindness: Utilizing Peer Support Groups

One school partnered with researchers in a study where five groups were created, each consisting of one visually impaired student and several sighted peers (Peavey & Leff, 2002). In these groups, various activities were performed to build trust between the students, breaking down barriers and encouraging self-disclosure among the group. Sighted peers learned to use direct verbal communication rather than indirect visual cues, and all members of the group shared their fears and anxieties about social interaction, helping the students see their similarities rather than their differences (Peavey & Leff, 2002). After the conclusion of this study, the visually impaired students reported more friendships and less isolation, more communication with peers, and a greater understanding of diversity for all members of the group (Peavey & Leff, 2002). Perhaps some of the social deficits reported by visually impaired people, children and adults alike, would be lessened if more inclusive activities were promoted in schools from an early age.

A Study of Visual Impairment and Parental Support

The importance of social support from parents decreases during adolescence, but it is the primary form of support prior to age 16 (Kef & Deković, 2004). Kef and Deković (2004) utilized personal interviews of blind and visually impaired Dutch adolescents, and sighted students took a battery of self-report questionnaires. Both forms of questioning assessed well-being and social support. The results showed that overall,

parents were significantly more supportive of the adolescents than peers were, as expected (Kef & Deković, 2004). Additionally, in the visually-impaired group, well-being actually decreased with age, while the opposite happened in the sighted group (Kef & Deković, 2004). The results also showed a lower level of support from parents with visually impaired children compared with the parents of non-visually impaired children (Kef & Deković, 2004). Overall, consistent with previous findings, sighted adolescents received significantly more social support from their parents and peers than did the visually impaired adolescents (Kef & Deković, 2004). The researchers make no claims as to why parental support might be lower for visually impaired adolescents, leaving room for future research on the mechanisms of parental support for visually impaired children (Kef & Deković, 2004).

Agnosias

The term agnosia covers a broad category, encompassing both visual and speech (verbal/auditory) agnosias. Within visual agnosias, there are two categories: apperceptive, which is a deficit in object recognition due to perceptual processing impairment, and associative, where objects can be perceived and analyzed but not recognized (Joy & Brunson, 2002). A fascinating type of associative agnosia is prosopagnosia, also called face blindness (Diaz, 2008). Prosopagnosia is an inability to recognize the shape and contour of faces, making them appear jumbled (Diaz, 2008). Even if a person with prosopagnosia has seen a specific face before, they would not recognize it as familiar (Diaz, 2008). Despite this, they can accurately recognize and identify facially expressed emotions (Diaz, 2008). Symptoms of prosopagnosia are manifold, including directional deficits, object blindness, memorization difficulties, and

deficits to pattern recognition (Diaz, 2008). Some or all of these symptoms may manifest within patients, helping guide doctors to a diagnosis.

Within prosopagnosia, there are two types: acquired and developmental prosopagnosia (Joy & Brunson, 2002). Acquired prosopagnosia is caused by stroke, traumatic brain injury, or infant visual deprivation, like congenital cataracts (Joy & Brunson, 2002). Adults with acquired prosopagnosia display damage to the posterior pathways (Joy & Brunson, 2002). It is often caused by bilateral occipital-temporal lesions, but only after a significant period of normal development (Joy & Brunson, 2002). While some people diagnosed with autism spectrum disorder also have a diagnosis with prosopagnosia, research indicates that prosopagnosia is not a developmental disorder but a visual-processing deficit, meaning that the two disorders are unrelated but sometimes comorbid (Diaz, 2008; Joy & Brunson, 2002). Developmental prosopagnosia has three diagnostic criteria. First, the deficit must be present from birth (Diaz, 2008). Second, it must manifest in early childhood (Diaz, 2008). Finally, the deficit cannot be due to any known neurological damage (Diaz, 2008). This is unlike acquired prosopagnosia, where specific brain damage is needed for a diagnosis. Interestingly, there have been at least two cases where a patient presented with developmental prosopagnosia but did not display any typical brain abnormalities, which goes to show that there is much researchers still do not know about prosopagnosia (Jones & Tranel, 2001; Nunn, Postma, & Pearson, 2001). Prosopagnosia affects up to 2% of 1600 people surveyed by Duchaine and Nakayama (2006), making it a very rare disorder in the general population. Prosopagnosia is not rigidly defined into categories; rather it is a spectrum. While some people may not recognize the faces of their family members or even themselves, others

may have difficulties only with recognizing people who are not immediately related to them (Diaz, 2008).

A Case Study of Prosopagnosia: Elizabeth and Steve

Across the board, children with prosopagnosia rarely have many friends due to the difficulty posed by developing and maintaining friendships (Diaz, 2008). More often than not, sighted adolescents call other children with a prosopagnosia diagnosis aloof, odd, shy, or superficial (Diaz, 2008). In one prosopagnosia case study reported by Diaz (2008), Elizabeth, age 30, and her son, 13-year-old Steve, explained the surfeit of challenges they faced in daily life. In school, Steve struggled with English, unable to recognize movie characters or interactions between book characters (Diaz, 2008). In math, he could not recognize patterns, and in theater, different actors were indistinguishable (Diaz, 2008). Steve's symptoms align with the common symptoms of prosopagnosia explained earlier. Elizabeth found jobs easier when she did not have to work with the general public, something she discovered while working a retail job where she was unable to recognize and return to a customer with the requested item (Diaz, 2008). Elizabeth could not use daycare since she would not be able to recognize her children when it came time to pick them up, and safety was a constant concern (Diaz, 2008). Steve had to avoid crowded areas, so fire drills or field trips were a nightmare waiting to happen in the event that he became separated from his teacher (Diaz, 2008). Elizabeth lacked friends beyond her immediate family, unable to recognize anyone else, even people she had met multiple times (Diaz, 2008). Steve had two close childhood friends (Diaz, 2008). He explained that making friends was fine, even easy, but maintaining those friendships was nearly impossible because it requires recognition –

something he is cognitively incapable of doing (Diaz, 2008). Steve's two close friends had distinctive features (hair, clothing, etc.) that made recognition much easier. People at Steve's school described him as ostracized and unfriendly, which is very different from his actual personality as described by his immediate family (Diaz, 2008). Given the adolescent need for social interaction and peer acceptance, a child with prosopagnosia, like Steve, struggles significantly with this basic human need. To make up for this deficit, people with prosopagnosia rely on the internet, verbal cues, and visual mapping to help them navigate a demanding social world (Diaz, 2008). Because of isolation and loneliness, depression is common in people with prosopagnosia. For example, Steve would accidentally ignore students he had previously spoken to, unable to recognize them. This quickly led to a reputation of being inconsiderate and weird to the point that students actively avoided him, and the cycle of isolation continued (Diaz, 2008). As a result, Steve eventually became extremely depressed and suicidal, not uncommon in adolescents with his diagnosis (Diaz, 2008).

Social Support and Well-Being

As can be seen from these case studies, it is difficult to form and sustain relationships with others when you cannot recognize their faces upon a second meeting. As such, social support is highly lacking for these individuals. Social support is the help and assistance a person expects and receives from the people they consider close, their social network (Papadopoulos, Papakonstantinou, Koutsoklenis, Koustriava, & Kouderi, 2015). A social network illuminates the links between individuals and groups of individuals, and its functions are demonstrated through behaviors and actions (O'Reilly, 1988; Papadopoulos et al., 2015). Researchers typically separate social support into four

categories: perceived, received, practical, and emotional (Papadopoulos et al., 2015). Perceived support is the belief that social support will be provided when it is needed (Lindorff, 2005; et al., 2015). Received support is the support a person reports receiving during a period in time, while practical support is tangible, like answering questions or giving a ride to an event (Kef, 1997; Papadopoulos et al., 2015). Finally, emotional support is the affective expression of concern, care, and respect (Kahn & Antonucci, 1980; Papadopoulos et al., 2015).

With quality social support comes increased well-being. Well-being includes feelings of autonomy, valuable interactions with others, and an understanding of one's life purpose and personal growth (Papadopoulos et al., 2015; Ryff & Keyes, 1995). Sighted adults report a higher level of social support, self-esteem, and happiness than visually impaired peers (Papadopoulos et al., 2015). In adolescents who are visually impaired, a strong positive correlation was found between good social support and happiness (Sarason, Levine, Basham, & Sarason, 1983). Some studies show severe developmental deficits in visually impaired students due to a lack of social acceptance and an inability to participate in certain activities, while other studies show outcomes similar to those of sighted peers (Lifshitz, Hen & Weisse, 2007). Lifshitz et al. (2007) found that while some outcomes were indeed similar, sighted students reported overall higher self-concept and social volition, and higher quality friendships. Sighted peers also reported spending more leisurely, non-academic time together than visually impaired peers, an activity that is related to better coping skills (Lifshitz et al., 2007).

Challenges Specific to Prosopagnosia

Prosopagnosia poses a different set of social challenges than total blindness or vision loss because the person affected can still see, but the faces are scrambled, making friendship maintenance remarkably challenging (Diaz, 2008). Prosopagnosia occurs despite normal vision and intellect, so an otherwise normal person may be labeled aloof or unfriendly, like in Steve's case (Dalrymple et al., 2014; Diaz, 2008). Because faces are the most accessible identifiers of physical identity, someone with prosopagnosia, particularly childhood-onset, will likely experience interpersonal developmental delays that frequently extend into adulthood (Dalrymple et al., 2014). Many people diagnosed with developmental prosopagnosia reported extreme fear and chronic anxiety that often leads to social isolation, limited job opportunities, and low self-esteem (Dalrymple et al., 2014). Some have compared the negative psychosocial effects of developmental prosopagnosia to dyslexia or stuttering, which also require special accommodations and have similarly lasting social effects (Dalrymple et al., 2014). Dalrymple et al. (2014) found several themes in semi-structured interviews of children with prosopagnosia and their parents. All of the children were aware of their visual recognition deficits and also disclosed information about coping strategies (Dalrymple et al., 2014). Many of the children noted that they memorize hair color, clothing style, and height, meaning something as small as a new haircut could render someone unrecognizable. These complicated steps leading to a simple hello are far more difficult than they would be for a person without prosopagnosia. Another theme from the children's interviews was merely this: "it's not funny" (Dalrymple et al., 2014). While some may find their disability humorous, the children affected do not, and any humiliation only leads to further

isolation (Dalrymple et al., 2014). To avoid awkward interactions and rude responses, many children turn to avoiding using names when addressing somebody, feeling anxious and upset that they cannot interact in a way that adheres to social norms (Dalrymple et al., 2014). The parents' interviews revealed that most parents wished they knew how their child was experiencing the world, wondering how they feel when their coping mechanisms are not enough (Dalrymple et al., 2014). Several parents noted in their responses that their children tend to be universally friendly to mask the difficulties they have recognizing people they may have previously encountered (Dalrymple et al., 2014). Even the youngest children with prosopagnosia know that their facial recognition is poor, and they are aware that they struggle with making and keeping friends because of this. Because friendship is vital to human thriving, accommodations must be promoted in a visually oriented world so that those affected by prosopagnosia can truly flourish. The anxieties and embarrassment last far beyond childhood into adulthood. More effective screening of facial recognition deficits in children is needed to enable earlier access to accommodation resources and to prevent further delays in interpersonal development.

Conclusion

This chapter has defined types of visual impairments, specifically blindness and prosopagnosia, explained the pathological form of friendship for those with a visual disability, examined case studies, and analyzed the importance of social support and how a lack of it leads to later problems. Next, we will take an expanded look at the social lives of those with visual disabilities, along with analysis of the school system, other disabilities, and stigma.

CHAPTER THREE

Public Schools and Stigma in Relation to Disabilities

Life for people with visual disabilities is similar to life for people without visual disabilities with a few key differences, as noted in previous chapters. While progress has been made, working to create a culture of inclusion and equal opportunity for people with disabilities, there are still steps that need to be taken. This chapter will look at issues in the public school system and the workplace. It will also look at stigma and other disabilities as they relate to friendship and visual disabilities.

Job Satisfaction and Visual Disability

Two of the biggest issues in life for an adult with a visual impairment are the jobs they can work and job satisfaction due to environment. Job satisfaction has been researched extensively. Studies have found that individuals with disabilities reported greater job dissatisfaction compared to individuals without disabilities (Uppal, 2005). This dissatisfaction has been attributed to harassment, discrimination, and poor interpersonal relations, a recognized problem for those with visual impairments in childhood and adolescence (Diaz, 2008; Peavey & Left, 2002; Uppal, 2005). Uppal (2005) found that poor interpersonal relations had the strongest negative impact on a person's likelihood to be satisfied with their job out of the many variables tested. Notably, people with visual impairments were the least likely to be satisfied with their jobs out of all disabilities analyzed, citing low quality social interaction as the primary issue (Uppal, 2005). Thus, it seems that job satisfaction is directly related to how people

sees themselves in relation to others in their workplace, and research suggests that adding more accommodations in the workplace would increase satisfaction for disabled employees (Uppal, 2005).

Issues in the Public School System

Within the average school system, impairments to visual processing are generally unrecognized or misidentified (Joy & Brundson, 2002). Regardless, vision plays a role in functional learning and in basic mobility and communication at school (Joy & Brundson, 2002). As discussed in previous chapters, students with visual impairments who follow the general curriculum of their public schools often lead isolated lives, something detrimental to adolescent growth (Peavey & Left, 2002). Because of the unfounded pity many visually disabled people receive, many are uncomfortable sharing information about their disability, and intentional effort must be made inside and outside of schools to increase trust (Peavey & Left, 2002). In analyzing different research, a common theme was found: the need for school reform. Notably, most schools already have some form of an infrastructure that could be improved to make school more effective and inclusive for students with visual impairments. A main issue is the visual nature of the curriculum, particularly in preschool and elementary school (Diaz, 2008). More important than the curriculum, however, is the loneliness reported by many students dealing with vision loss or prosopagnosia, as well as the inaccurate and rude labels placed on them by other students (Diaz, 2008; Peavey & Left, 2002).

In the case of Steve, the 13-year-old with prosopagnosia who was discussed in the previous chapter, a serious intervention was required to help with his severe depression and suicidal behavior that resulted from extreme isolation in middle school. After

significant intercession, Steve became much more comfortable with himself and no longer cared what other kids thought of him (Diaz, 2008). A large part of his recovery was due to the perception and quick action of the school nurse, who noticed that Steve was struggling and provided care and references to professional help when things became too much to bear (Diaz, 2008). School nurses and counselors, due to extensive training and their relationships with students in vulnerable situations, are in a position to provide desperately needed education to faculty and staff and can easily create an honest and accepting environment so that the student and family can communicate with the school (Diaz, 2008). Nurses and counselors are uniquely equipped to advocate for the unheard voices of students who are affected by little known disabilities, like prosopagnosia, or widely known ones, like blindness and vision loss (Diaz, 2008). This is just one example of infrastructure schools already have in place that could be reformed to do better for the student body. If nurses, counselors, and other school staff with access to vulnerable students were trained to act as advocates, it is possible that changes could be made both at the schools themselves and in the legislature that determines funding for special education programs. School staff are in the position to make a difference in a few lives at a time, and every school should be equipped to give the training needed to create this change.

Each visual disability requires a different intervention or accommodation to improve quality of life for those affected. Blindness or low vision often require environmental modifications, as well as more direct verbal cues in social situations. For someone with prosopagnosia, maintaining friendships is the greatest challenge, as recognition upon a second meeting is the greatest struggle (Diaz, 2008). Many people with prosopagnosia

are able to have meaningful relationships with close family and friends, but anything outside of that poses an exceptional challenge (Peavey & Left, 2002). Some fear losing their sight entirely, making day to day life even more challenging (Peavey & Left, 2002). Jobs are a challenge, as is becoming involved in the local community, especially for someone with prosopagnosia because of the inability to remember faces (Diaz, 2008). The challenges created by visual impairments are not unlike that of other disabilities, such as intellectual disabilities, hearing loss, physical ailments, or mental illness.

Friendship in Relation to Other Disabilities

Intellectual Disability

Intellectual disability (ID) is defined as a condition with incomplete development of the mind, causing impairment of basic developmental skills that ultimately affects intelligence, motor and language skills, and social abilities (Maulik, Mascarenhas, Mathers, & Dua, 2011). Within the social ability category, social problem solving and interpersonal skills are the most affected (Maulik et al., 2011). Language skills are also impaired, making communication with others difficult (Maulik et al., 2011). Harris (2006) reported that the global prevalence of intellectual disability is between 1% and 3%, with mild ID being the most common at 85% of diagnosed cases. More studies have been done involving friendship and intellectual disability than with prosopagnosia and other visual disabilities, and comparisons can be made between the two types of disability. Similar to children with visual disabilities, children with intellectual disabilities are now frequently incorporated into the mainstream school system (Laws & Kelly, 2005). Also of paramount importance is the necessity of these children with ID

being appropriately incorporated into the classroom with the help of peer acceptance (Laws & Kelly, 2005). Low quality peer relationships in adolescents are likely prognostic of eventual adult psychopathy, while acceptance is more likely to lead to successful avoidance of behavioral problems (Criss, Pettit, Bates, Dodge, & Lapp, 2002; Laws & Kelly, 2005; Rutter, 1989).

Peer acceptance of Intellectual Disability. Laws, Taylor, Bennie, and Buckley (1996) found that while publicly educated children with Down syndrome were not rated lower in popularity than their classmates, they were never listed as a close or intimate friend and were invited over to the homes of their peers less frequently. A child's understanding of disability is influenced by many factors, and their attitudes toward others can be easily molded, a direct reflection of their parents and teachers (Laws et al., 1996; Laws & Kelly, 2005). Laws and Kelly (2005) found that peer acceptance was low for children with intellectual disabilities, particularly ones that involved behavioral outbursts. However, in this study, the children who were given information about the disability of the child in their class reported much more positive feelings toward that child and made efforts to be more inclusive (Laws & Kelly, 2005). This shows the importance of promoting tolerance and inclusivity in schools from an early age so that children are able to grow up with an understanding of people who are different from them. If a child has a basic understanding of what someone with Down syndrome is feeling or goes through, then they are less likely to point or stare and instead may offer a smile and begin a friendship (Laws & Kelly, 2005). With disorders that are highly stigmatized, like intellectual disability, it is crucial to spread awareness.

Hearing Loss

Hearing loss is another common disability that causes issues in forming and maintaining friendship. It is similar to blindness or prosopagnosia in that it can be acquired or developmental, with either kind posing its own challenges to friendship (Yoshinaga-Itano, Sedey, Coulter, & Mehl, 1998). In children with a congenital defect, early diagnosis of intervention for hearing loss are essential to allow for some form of proper language development (Yoshinaga-Itano et al., 1998). With partial or total hearing loss, receptive and perceptive language skills are in jeopardy, especially in children who have not previously learned and spoken a language (Yoshinaga-Itano et al., 1998). These language skills are vital for engagement with others, and a child who does not have this ability will have significant difficulty interacting with peers, especially unfamiliar people (Yoshinaga-Itano et al., 1998).

Peer acceptance in the school system. Deaf students are frequently enrolled in the general public school system with hearing students, much like students with an intellectual disability or a visual disability (Bowen, 2008). Deafness requires more accommodation than other disabilities, and schools utilize multiple teachers and deaf educators to teach all students in the classroom equally (Bowen, 2008). The ability to communicate effectively with peers is a common concern for many deaf students in the school system (Bowen, 2008). In fact, Martin and Bat-Chava (2003) found that the principal barrier faced by deaf children in school is the inability to communicate with their classmates. Other issues, such as academic apathy and mental health issues, stem from these basic communication issues (Bowen, 2008; Martin & Bat-Chava, 2003).

Bowen (2008) found that while coenrollment of a deaf child in a hearing classroom increases opportunities to interact with others, it does not necessarily increase the quality of those relationships. However, increased interactions with deaf students helped hearing students understand the disability better, increasing positive attitudes and sign language usage (Bowen, 2008). Unlike cases dealing with exposure to people with prosopagnosia, exposure to children with hearing loss had a positive effect on the community. With prosopagnosia, many of the children enrolled in the general school system faced much stigma and confusion, possibly due to the rareness and confusing nature of their disability (Bowen, 2008). Coenrollment seems to have had little benefit for the children with a disability (Bowen, 2008).

Physical Disabilities

There are many types of physical disabilities that have a wide range of social challenges. A physical disability is defined as a physical condition that affects functioning of a person's dexterity, endurance, ability to move, and physical capacity ("What is a physical disability?", n.d.). They can be congenital or acquired, and many people are still able to live with a high quality of life ("What is a physical disability?", n.d.). Physical disabilities can be the result of acquired brain injuries, such as a stroke or a tumor, or they may be caused by epilepsy, Cerebral Palsy, Multiple Sclerosis, or Prader-Willi Syndrome ("What is a physical disability?", n.d.). Social isolation as a result of stigma is well documented, and significant psychological risk for children in particular is the focus of many research studies (Weiserbs & Gottlieb, 2010). Weiserbs and Gottlieb (2010) found that children who did not have a disability were less willing to help or be friends with a child with a disability, and less favorable attitudes were

discovered as well. For teens who have severe mobility limitations or issues with cognitive processes, achieving a normative friendship is far more difficult than it is for someone without these restrictions (Matheson, Olsen, & Weisner, 2007).

Peer acceptance and physical disability. Interestingly, Matheson, Olsen, and Weisner (2007) found that teens considered lower-functioning were more likely to feel satisfied with their friendships than their higher-functioning peers, but they also listed a significantly smaller number of friends. In this study, students were mostly in mixed schools, just as in other studies of students with disabilities (Matheson et al., 2007). However, many of these students spent large portions of their day in special education or otherwise tailored classes, which is different from the situations in many other schools (Matheson et al., 2007). Matheson, et al. (2007) found that the friends of students with disabilities did not feel negatively toward them, but they did report lower levels of intensity in those friendships. Matheson et al. (2007) ascertain that it is likely more difficult for students with disabilities of any kind to maintain contact with their friends or to create new relationships, particularly in high school (Matheson et al., 2007). In fact, as these teens transitioned to high school and beyond, results show decreasing levels of satisfaction with increasing age (Matheson et al., 2007). School acceptance decreased and social interactions became more challenging as puberty began, and new, more intense social pressures set in, posing a unique challenge for students with disabilities.

Similarities to Visual Disabilities

As with prosopagnosia and other visual disabilities, people with intellectual disability, hearing loss, mental illness, or physical disability deal with isolation,

loneliness, and difficulty forming and maintaining friendships. The effects of these are long-lasting into adulthood, making it difficult for real relationships to be formed, as secure childhood attachment is crucial to healthy adult relationships (Bowlby, 1969; Miller, 2018). People who deal with severe and stigmatized disabilities may have low opinions of themselves and their disability, resenting how the disability has negatively impacted their lives (Lifshitz et al., 2007). For people with a debilitating disability, finding social contexts outside the comfort of home that accommodate their specific needs is challenging, as inclusivity has not been a priority for the general public, though awareness is growing. Each of the disabilities detailed above have similarities to visual disability, but the underlying theme is this: friendship is essential for all human beings, and while disabilities can create barriers to relationships, those relationships can still be achieved with awareness and intentionality. Because stigma surrounds discussions about disability, we must be active in making a change, conscious of how our words and actions are perceived.

Stigma and Advocacy

Defining Stigma

Research on stigma has grown considerably in recent years, specifically in relation to social psychology and mental illness. Its definition varies from the incredibly broad to the exceedingly narrow, but the root of the issue remains the same. A person who is stigmatized may possess some trait or attribute that deviates from a social norm as defined by the society in which the person lives (Link & Phelan, 2001; Jones, Farina, Hastorf, Markus, Miller, & Scott, 1984). A stigma is a “mark” born by a person who possess such traits labeled as undesirable (Link & Phelan, 2001). Stigmas can be a

person's socioeconomic status, a birth mark, a mental illness, or a disability like prosopagnosia or blindness (Jones et al., 1984). Circumstances surrounded by stigma affect more than just the person's self-concept; stigma affects mental health, earnings at a job, ability to buy or rent a house, and even the potential for criminal involvement through a sort of self-fulfilling prophecy (Link & Phelan, 2001). Something interesting and unusual about stigma research is its multidisciplinary nature. Stigma is researched by social psychologists, anthropologists, political scientists, sociologists, and even social geographers (Link & Phelan, 2001). Thus, every discipline approaches stigma in a unique way that contributes to its multifaceted definition.

Defining Advocacy

In order for stigma to be broken down and ultimately destroyed, advocacy is necessary (Corrigan & Kosyluk, 2013). Advocates against stigma have many responsibilities, the base level being an understanding of the discrimination and prejudice that afflicts the population they advocate for (Corrigan & Kosyluk, 2013). However, the task of ending stigma is not straightforward or easy. For change to be accomplished, the underlying behaviors and beliefs that encourage stigma must be replaced with affirming counterparts. Corrigan and Kosyluk (2013) have created an interesting figure (see *Figure 1*) that clearly outlines how advocacy can be used to confront issues of stigma. While this figure relates directly to stigma and mental illness, the processes listed can be applied to other cases, including stigma with visual disability.

PROCESSES				
	PROTEST	EDUCATION	CONTACT	
V E H I C L E S	MEDIA-BASED	Public service announcements against movies like <i>Psycho</i> .	Video that contrasts myths (e.g., people with mental illness are dangerous) and facts.	Magazine story about individual who tells his story of recovery from schizophrenia.
	IN VIVO	A group who gathers in front of a movie theater against <i>Psycho</i> .	Experts at a meeting of Rotary International who answer questions about mental illness and effective treatments.	Individual with mental illness who tells her story of successful career at a civic club meeting.

Figure 1: Vehicles of Advocacy

Corrigan and Kosyluk's (2013) figure utilizes protest, explained as outward expressions of public disagreement with a behavior or representation, education of the public through panels and videos, and contact with those affected by the stigmatized disability or illness to tell a personal story. Protesting can be used peacefully to reprimand those guilty of stigmatizing others for their behaviors and attitudes, especially in this modern age of technology where the internet can be used to rapidly disseminate information to an otherwise ignorant crowd (Corrigan & Kosyluk, 2013). Education works to change beliefs and incorrect stereotypes in a variety of populations by replacing them with correct information. For example, mentally ill people are frequently portrayed as dangerous, which is not true (Hiday, 1997). Education can be used to spread accurate information about different disabilities and illnesses, and it can be started at a young age. If schools started teaching kindergarteners about people who are blind, have anxiety, or have a learning disability beginning on the first day of class, a generation would rise up that understands and appreciates the differences of their peers and the people around them. If a generation of future leaders were raised to make changes legally and interpersonally for those with disabilities, it would be monumental. Along with education and protest, interpersonal contact with people affected by disabilities can be

used to humanize an otherwise stigmatized group. This approach necessarily relies on disclosure and vulnerability (Corrigan & Kosyluk, 2013). In studies involving exposure to people with mental illness and other disabilities, interpersonal interaction improved attitudes and increased positive interaction, similar to the studies with blind and sighted peers, discussed in Chapter Two (Alexander & Link, 2003; Allport, 1954; Boyd, Katz, Link, & Phelan, 2010; Corrigan & Kosyluk, 2013; Couture & Penn, 2003; Diaz, 2008; Lifshitz, Hen & Weisse, 2007; Peavey & Left, 2002). Multiple meta-analyses confirmed this, especially when the affected person disconfirms the stereotypes the general public is aware of and may fear (Corrigan & Kosyluk, 2013; Corrigan, Morris, Michaels, Rafacz, & Rüscher, 2012; Pettigrew & Tropp, 2006).

In order for advocacy to be successful, continuing to grow and improve, researchers play a crucial role. Like Corrigan and Kosyluk (2013) and other researchers found, scientific research is at the forefront of anti-stigma campaigns, providing backing in the form of statistics and other data that support the need for such campaigns (Alexander & Link, 2003; Allport, 1954; Couture & Penn, 2003). By using informed people to tell ignorant or unaware people about the realities of visual disability, mental illness, or developmental disabilities, to name a few, the attitudes of society can change rapidly if the right methods are used. Because some methods of advocacy may seem helpful but are actually harmful, including researchers in the advocacy process allows for the usage of effective, data-backed methods to end unwarranted stigma on a group of people who should not be branded by insult (Corrigan & Kosyluk, 2013).

Advocacy and Allies in Schools and the Workforce

Like many researchers have found, advocacy looks different in every environment (Corrigan & Kosyluk, 2013). Similarly, the legislature required in the workplace is different from that needed in the school system. The Americans with Disabilities Act (ADA) was passed into action in 1990 by President George H. W. Bush (“What is the Americans with Disabilities Act?,” 2019). This civil rights law explicitly forbids discrimination in public life against individuals with disabilities, including in jobs, in schools, on transportation, or in public areas (“What is the Americans with Disabilities Act?,” 2019). The ADA also requires reasonable accommodation to corporate policy and environmental modifications, as well as highlighting the need for more effective communication tools for people with speech, hearing, and visual disabilities (“What is the Americans with Disabilities Act?,” 2019). These modifications could include wearing nametags or using microphones in large auditoriums. While the effectiveness of the ADA is up for debate, with critics claiming it has caused more harm than good in removing stigma, and its advocates proclaiming its successes, the intention behind the act is a necessary starting point (Hastings, 2010).

In schools, various policies have been enacted to protect and uplift children with disabilities. In 1975, the Education for All Handicapped Children Act was passed by Congress, the first special education law of its kind, requiring equal opportunity for children with special needs (Rhodes, 2007). Next, in 1990, the Individuals with Disabilities Education Act (IDEA) was created as a modification of the Education for All Handicapped Children Act to ensure that special needs children receive free public education that accommodates their specific needs (Rhodes, 2007). IDEA works to

increase high school graduation rates and college enrollment, as well as to educate children with special needs in the same classroom as their non-disabled peers (Rhodes, 2007). Most recently, the 2001 Elementary and Secondary Education Act, also called the No Child Left Behind Act, requires accountability for schools to make sure all students are academically progressing, regardless of the presence of a disability (No Child Left Behind; n.d.; Rhodes, 2007). This program provides incentives for schools to show that students with special needs are progressing adequately compared to their peers, and it allows students to attend alternative programs should their assigned school not meet their academic, emotional, or social needs (No Child Left Behind; n.d.; Rhodes, 2007). These policies, just like the ADA, have conflicting arguments about their effectiveness, but again, the intention to improve lives is present. One common criticism of No Child Left Behind is that children with disabilities are required to take the same exams as children without disabilities, but most children with disabilities actually perform comparably to their peers on standardized exams (Smith, 2004). Some students need accommodations to perform well, but those accommodations are not unreasonable and can be provided (Smith, 2004). The cognitive and intellectual abilities of students with varying disabilities should not be underestimated; in fact, this underestimation is part of the stigma that needs to be broken down. Legislation like ADA and IDEA, as well as No Child Left Behind, are crucial to destigmatizing disability (Hastings, 2010).

Within special education laws, there are six key principles. They are, as stated by Turnbull and Turnbull (1998):

- (1) zero reject, or the right of every child to be included in a free, appropriate, publicly supported educational system;
- (2) nondiscriminatory testing, placement, and classification;
- (3) individualized and appropriate education;
- (4) least

restrictive appropriate educational placement; (5) procedural due process; and (6) parent participation and shared decision making.

This creates a clear outline for policymakers and educators to know what is required of them when working with a child or adolescent who has special needs of any kind. In order to lessen stigma and be an effective advocate for people who have disabilities, we must address the problems at the root of society. Social justice experts and activists alike lean toward a constructivist perspective, explaining that it is society, not the individual, that “creates disabilities” by imposing created norms that exclude anyone who differs from strictly defined categories (Evans, Assadi, & Herriott, 2005). In 1982, Disabled People’s International made a distinction between impairment and disability, saying that impairment is functional limitation while disability is the loss of opportunities to participate in normal life with others because of both social and physical barriers (Barnes & Mercer, 2003). The issue, social justice advocates explain, lies in a person being unable to participate in normal life activities because they are limited by what society has defined as the social norms for that culture (Evans et al., 2005). To help with these issues, advocacy requires people in a position of privilege speaking out as a voice for the voiceless, an ally for the marginalized (Evans et al., 2005). An ally is a person who is a member of a dominant or majority social group, such as men or white people, who work to end the systemic oppression that has given them this greater privilege within their social group (Broido, 2000; Evans et al., 2005). Awareness is crucial to ending the stigma surrounding disability, including visual disability (Corrigan & Kosyluk, 2013).

Conclusion

Much of the literature and legislature of the past presented disability as a weakness, which perpetuated the previous perception that people with disabilities are less capable (Evans et al., 2005). This language, along with limited exposure and improper popular representation, led to a cycle of oppression, discrimination, and alienation. In this chapter, various disabilities have been catalogued, and the school system has been analyzed. While steps have been taken by advocates, allies, and policymakers to end the stigma surrounding disability, much more can and must be done to better the lives of those affected by disabilities. Stigma affects the abilities of people with disabilities to make and keep friends. It is hard to get to know someone if they are unable to put their preconceived notions aside, and this is no different in cases of disability. Because social support is essential and because stigma is an unnecessary barrier to friendship and social support, both already difficult to attain for people with disabilities, the removal of stigma needs to be a focus for advocates. In the next chapter, we will tie together the pieces from each of these chapters, analyzing the humanness of friendship and its ideal forms in different cultures across the world, as well as how people with visual and other disabilities manage to thrive in a world restricted and defined by social norms.

CHAPTER FOUR

Ideals of Friendship

The Humanness of Friendship

In the past three chapters, friendship has been analyzed from various perspectives, from its psychological and neural components to its importance for people with and without disabilities. In this chapter, we will look at issues of bias in research, cross-cultural experiences of friendship for people with and without disabilities, the persistence of human friendship despite the odds, and recommendations for future research. Despite social norms and societal pressure, people with visual and other disabilities are able to thrive, as can be seen in both Western and non-Western cultures.

The WEIRD Bias in Psychological Research

A sampling bias is present in psychological research that skews its participants such that the data is not representative of the vast majority of the world (Nielsen, Haun, Kärtner, & Legare, 2017). Attention has been increasingly drawn to the lack of diversity in psychological testing and research (Nielsen et al., 2017). Nielsen et al. (2017) found that most research in psychology is overwhelmingly comprised of WEIRD samples, meaning samples of people from Western, educated, industrial, rich, and democratic backgrounds (Henrich, Heine, & Norenzayan, 2010a; Nielsen & Haun, 2016; Nielsen et al., 2017). Issues arise when a non-representative sample is generalized to a global population, and cultural variations may be ignored, which ultimately leads to inaccurate or inadequate conclusions (Apicella & Barrett, 2016; Kruglanski & Stroebe, 2011;

Nielsen et al., 2017). In order to more fully understand humans and the human mind, sampling diversity is essential, including diversity of culture and diversity of environment (Nielsen et al., 2017; Zeigler-Hill, Welling, & Shackelford, 2015). In fact, cultural differences between Western and non-Western communities, including assertiveness, methods of communicating, and gender roles, manifest from as early as young childhood (Bornstein, 1991; Nielsen et al., 2017). In young children, socialization and the roles of family and non-family members vary between cultures (Bornstein, 1991). For example, the amount of time a mother spends face-to-face with their infant directly affects the child's social skills later in life, but those norms of communication vary between cultures (Bornstein, 1991; Keller, Borke, Kartner, Jensen, & Papaligoura, 2004; Nielsen et al., 2017). In some cultures, the mother is expected to spend all of her time with her newborn, while other cultures expect the mother to immediately go back to work or pass the responsibility of childcare off to a nanny or another family member (Nielsen et al., 2017). This is just one example of why it is important to consider cultural differences in studies of human behavior regardless of the age group being studied.

The language used in research literature often generalizes the sample to the population. For example, a study might say that “children solve math problems by using their fingers to count,” when the reality is that children from a certain cultural background solve problems in that way (Haun, Rapold, Call, Janzen, & Levinson, 2006; Nielsen et al., 2017). No two people share the exact same environment; even identical twins raised together have different experiences with the world (Nielsen et al., 2017). Thus, all research must be considered cautiously within the context of the sociocultural environment in which it was conducted. Treating all environments as universal is similar

to missing a confound variable or misjudging the effect of a measure or treatment (Nielsen et al., 2017). To confirm suspicion about the Western bias, Nielsen et al. (2017) surveyed the demographics of every article published from 2006 to 2010 in three top-tier experimental developmental psychology journals: *Child Development*, *Developmental Psychology*, and *Developmental Science*. A meta-analysis of 1582 articles was conducted, and the results confirmed Nielsen et al.'s (2017) suspicions: 912 studies included participants from the United States alone, 284 included only English-speaking countries, and 236 additional studies used non-English-speaking European countries. Only 112 of the 1582 articles featured participants from the Middle East, Africa, Asia, and Central and South America (Nielsen et al., 2017). Shockingly, only 10 studies had any participants from Africa, and the total number of participants from the United States was more than double the number of the rest of the world combined (Nielsen et al., 2017). The bias in these studies becomes even clearer when it is noted that 85% of the global population comes from the Middle East, Africa, Asia, and Central and South America, but only 3% of the participants in these studies came from those countries (Nielsen et al., 2017; World Population Prospects, 2017). While work has been done to lessen the bias, in 2015, only 8.33% of all studies in *Child Development*, *Developmental Psychology*, and *Developmental Science* featured participants from outside of the United States and Europe (Nielsen et al., 2017).

Another issue in psychological research is the overwhelming presence of English-speaking authors at 61% (Nielsen et al., 2017). Language acts as a barrier to publication because translation to English may not be available for authors with little grasp of the complexities of the English language (Nielsen et al., 2017). Researchers must be aware

that they are not necessarily researching universal human behavior but rather cultural particulars that may or may not apply to the global population (Nielsen et al., 2017).

Much of behavioral research assumes that every person shares the same cognitive and emotional processes (Henrich, et al., 2010a). In fact, multiple disciplines have found that there is variation globally in multiple domains, including memory, cooperation and justice, analytic reasoning, and visual perception (Henrich et al., 2010a). Most studies in economics, psychology, and other behavioral sciences are done within WEIRD societies, and within that, most study participants are American university undergraduates, some of “the most psychologically unusual people on Earth” (Henrich et al., 2010a). American undergraduates are a rarity: highly educated and from one of the world’s wealthiest nations (Henrich et al., 2010a). The evidence that certain processes are not universal is surmounting and cannot be ignored any longer. For example, studies have shown that Americans, Western Europeans, and Canadians rely on strategies of analytical reasoning to predict behavior, which is different from non-Western cultures (Henrich et al., 2010b). Asian countries tend to reason in a more holistic manner, thinking about behavior in the context of the situation in which it occurred (Henrich et al., 2010b). Additionally, in economics experiments, researchers often use “one-shot” experiments, like the ultimatum game, where a player decides how much of fixed amount of a resource they will offer to another player, who is given the choice to accept or reject the first player’s offer (Henrich et al., 2010b). If the offer is rejected, neither player receives any money (Henrich et al., 2010b). If the study is done in an industrialized society, participants are more likely to divide the money equally, rejecting low offers (Henrich et al., 2010). In non-

industrialized societies, people behave entirely differently, as they are unlikely to make equal offers but are also unlikely to reject low offers (Henrich et al., 2010).

There are practical costs in using these overwhelmingly WEIRD populations. In economics, the results of human behavioral studies have been used to develop theories that translate into policy on things like wages at work or laws for renting a house (Henrich et al., 2010b). Populations vary significantly in biases they experience or how they make economic and behavioral decisions, which affects everything from investments in the stock market to how people react to a difficult situation (Henrich et al., 2010b). To combat these biases in research, Henrich et al. (2010b) gave four suggestions to increase the credibility of psychological research:

1. Investigators and editors must support generalizations with empirical evidence.
2. Granting agencies should credit researchers that compare diverse and understudied subject pools.
3. Granting agencies should strongly consider cross-cultural, multidisciplinary research.
4. Researchers must consider how their results can apply to other populations, ideally by placing the results within the context of another population.

The Western bias in psychological research creates a limitation for this thesis, as the World Health Organization said in 2012 that 90% of the 295 million people globally on record with visual impairments live in developing countries (Hadidi & Al Khateeb, 2014). However, as stated before, only 3% of the studies in three of the top psychological journals included any participants from developing or non-Western nations, which means that the research on record is likely not representative of the

world's population (Nielsen et al., 2017). By recognizing the extent of human diversity, human nature can be understood more fully. Acknowledging the differences between us will not cause a divide, but rather it will help us understand one another and love each other more fully, informing better decisions in friendships, romantic relationships, and other types of communication.

The Importance of Cross-Cultural Studies

The results of cross-cultural studies can provide a framework for culturally appropriate treatment and advisement for those with visual and other impairments (Hadidi & Al Khateeb, 2014). As mentioned previously, the Western bias in psychological research provides an inaccurate representation of the global population, as Western cultures tend to be more autonomous and independent (Hadidi & Al Khateeb, 2014; Triandis, 2001).

Culture has been defined in many ways, and Kluckhohn (1954) explained that “culture is to society what memory is to individuals.” When examining a culture, one must consider the time, place, and language in relation to other cultures, because language is the vessel by which culture is passed down through generations (Triandis, 2001). Triandis (1989) found that in individualist cultures, like North America and Northern and Western Europe, people used a high number of “I” personal statements, such as “I am intelligent”. In more collectivist cultures, such as Africa, South America, and Asia, people use phrases like “my family thinks I am intelligent” (Triandis, 1989). Additionally, individualist cultures tend to prioritize personal goals, while collectivist cultures may behave in a way more aligned with the social norms of their in-group (Triandis, 2011). It is important to note that these are idealized generalizations, as both

groups overlap and not all subsets of each group have every characteristic traditionally assigned to their group. As this relates to research, a study with a Western bias is unlikely to consider the collectivist tendencies of a non-Western population, which creates problems when it comes to generalizing the results of a study to the global population. When doing data analysis, a level could be added that considers the social and cultural factors that influence results (Triandis, 2011). However, because bias is acutely prevalent in psychological research, studies from non-Western countries need to be considered separately from their Western counterparts.

Cross-Cultural Comparisons of Friendship

To date, research on social support specifically for adolescents with visual impairments has been carried out primarily in developed countries (Hadidi & Al Khateeb, 2014). As such, little is known about the role of social support and stigma in countries in the developing world. A good example of this issue can be seen in results from Hadidi and Al Khateeb's (2014) study, where they set out to increase knowledge of social support for blind Arab students with a study in Jordan. In the Western world, the majority of studies report that adolescents with visual impairments have more problems with socialization, feel more alone, and experience lower levels of social support from their peers and parents than adolescents without visual impairments (Huure & Aro, 1998; Kef, 2002; Kef & Deković, 2004; Pinguart & Pfeiffer, 2011; Sacks, 2006; Sacks, Wolffe, & Tierney, 1998). However, 90% of people who have visual impairments live in the developing world (Hadidi & Al Khateeb, 2014). The estimated prevalence of people with visual impairments in the Arab region is between 0.6% and 1.5%, and the total

population of this region is over 350 million, meaning that over 2 million people have visual impairments (Hadidi & Al Khateeb, 2014; Tabbara, 2001).

In Jordan, students with visual disabilities typically go to special schools, with very few attending mainstream schools (Hadidi & Al Khateeb, 2014). Hadidi and Al Khateeb (2014) explained that in Jordan, children who have visual impairments are regarded with the greatest ability to learn out of all students with disabilities. In 2014 in Amman, the capitol city of Jordan, there were two schools for blind students, called the Abdoon High School for the Blind and Abdullah ben Maktoom School, which have since merged to become the Royal Academy for the Blind (Hadidi & Al Khateeb, 2014). The program in Amman sends their students to public high school to study with sighted peers after the completion of ninth grade (Hadidi & Al Khateeb, 2014). Hadidi and Al Khateeb (2014) found that very little research had been done relating to visual impairment, and only one study focused on social support for this group. Shawareb (2005) had earlier conducted a study of 104 visually impaired students and 412 sighted students in Jordan, finding that social support for sighted students was significantly greater, and self-esteem levels were higher as well. Hadidi and Al Khateeb (2014) sought to replicate Shawareb's (2005) results by investigating the link between perceived social support levels and the presence or lack of visual impairments. In the study, 86 students with severe visual impairment or blindness and 73 sighted students participated in the study, taking a self-report measure that analyzed social support (Hadidi & Al Khateeb, 2014). Unlike studies done in Western cultures, the study in Jordan found that adolescents with visual impairments reported more support from their parents and peers than did their sighted peers (Hadidi & Al Khateeb, 2014). This contradicts studies that found that Western

adolescents with visual impairments reported smaller social networks (Hadidi & Al Khateeb, 2014). They also found that Arab culture is more interdependent, which the researchers believe influenced their contradictory results. Hadidi and Al Khateeb (2014) recommended that to raise awareness and replicate the results elsewhere, special education teachers need to be acutely aware of the educational and cultural backgrounds of each of their students, both those with and without visual impairments, to develop and administer programs that are culturally and pedagogically appropriate. While these results are certainly groundbreaking, the study contradicts other reliable research, so further investigation is needed to confirm these results. Studies have looked at inequality between girls and boys in the Middle East and other non-Western countries, but very few have looked specifically at blindness and social support (Fahd, Marji, Mufti, Masri, & Makaram, 1997). However, it is still useful to examine cross-cultural studies on friendship that are not related to disability.

Because cultures are not homogenous, friendship varies in definition within every society and between genders (Keller, Edelstein, Schmid, Fang, & Fang, 1998; Krappmann, 1996). In societies that are developing or less industrialized than Western societies, friendship is used as a means toward achieving necessary resources for survival and is less autonomous (Beer, 2001; Keller, 2004; Krappmann, 1996). Friendships are almost certainly influenced by cultural beliefs as behaviors are at least partially dictated by societal norms and the reactions that go along with them (Chen, French, & Schneider, 2006; Gummerum & Keller, 2008). However, studies have shown that certain aspects of friendship are universal, and that close, intimate friendship itself is essential regardless of cultural influence (Gummerum & Keller, 2008). Gummerum and Keller (2008) used

longitudinal and cross-sectional samples to determine if Western theories of friendship can be generalized to other cultures, and while they found that overall they can, they also found significant differences between countries. Countries like Russia and China placed more value on shared activities, and Gummerum and Keller (2008) believe this may have something to do with the more socialist nature of the societies, as well as economic challenges in these countries at the time of data collection. Ultimately, Gummerum and Keller (2008) found that friendship and reasoning are heavily influenced by cultural factors, but they also found a need for further research on cross-cultural friendship.

The Belonginess Hypothesis

Regardless of the odds, we crave intimate connections with other human beings, because the cost or inconvenience of a relationship is far less than the benefit of obtaining and maintaining that relationship. The belonginess hypothesis states that humans have an inescapable drive to create and maintain at least a small number of close, long-lasting, intimate, and positive relationships, and this drive can only be satisfied through a few means (Baumeister & Leary, 1995). First, we need frequent positive exchanges with a consistent group of people (Baumeister & Leary, 1995). Second, the people involved in these interactions must display emotional concern for the welfare of others (Baumeister & Leary, 1995). Interactions with a wide variety of people with little consistency, while better than no interaction at all, are not as beneficial as repeatedly interacting with a smaller, stable group who are mutually invested in each other's success (Baumeister & Leary, 1995). While research in the field of interpersonal relations is in its infancy, psychology has examined the importance of other people to well-being since the time of Freud in the 1930s (Baumeister & Leary, 1995). Bowlby's (1969) attachment theory,

explained previously, was the first explicit analysis of the fundamental need to form and maintain relationships. While the need for relationships is widely recognized as true, there has historically been minimal empirical evidence for this claim, until now.

Interestingly, the hypothesis of an inherent need to belong directly contradicts cultural materialism. Cultural materialism assumes that all of human culture is formed and driven by economic needs and opportunities, and it ultimately directs all forms of research – psychological, historical, sociological, anthropological, or otherwise – to perform analyses with economics at the root of it all (Baumeister & Leary, 1995; Harris, 1979). With cultural materialism, psychological occurrences are merely symptoms of economic facts, and human culture apart from economics is downplayed (Baumeister & Leary, 1995). The belongingness hypothesis suggests that humanity has adapted to satisfy the pressure to be with others, so all of our interactions stem from a desire to satisfy that need (Baumeister & Leary, 1995). It seems that the need to belong has an evolutionary basis such that in times of limited resources or physical danger, those who belong to a group are more likely to survive (Baumeister & Leary, 1995). This is different from the need for social contact or the need for positive interactions, both of which could come from strangers (Baumeister & Leary, 1995). The belongingness hypothesis posits that long-term relationships are desired such that positive social contact with strangers is the first step toward becoming friends or learning how to better interact with others (Baumeister & Leary, 1995). Human beings are goal-directed and partake in activities that meet the minimum needs of relatedness with others (Baumeister & Leary, 1995). Thus, it follows that a person who is deprived of social interactions should display an increase in goal-oriented activity aimed at decreasing this deficit by forming emotionally intimate

relationships (Baumeister & Leary, 1995). As discussed previously, people with visual or other disabilities are more likely to have deficits in social interaction, yet they still manage to have fulfilling relationships. This speaks volumes to the doggedness of friendship despite impediments.

Recommendations for Future Research

The field that studies friendship empirically is newer, and studies that look at social support specifically for people with visual impairment are very rare. As such, there are multiple recommendations for future research that can be made. First, studies on non-WEIRD populations must be made a priority. Further study is needed on Western cultures compared with the rest of the world, as it is possible that results like Hadidi and Al Khateeb's (2014) study, where blind Arab students reported more support than their visually normal peers, would not be abnormal in the rest of the non-Western world. Second, empirical research on the need to belong is few and far between. More data is needed to support new theories that are currently in their infancy. Third, the neural components of friendship, as well as friendship's health benefits, ought to be researched more. Friendship is vital to our survival, yet we know very little about the role it plays in brain activation and overall well-being. Fourth, prosopagnosia, rare as it is, should be researched more in depth for the sake of people diagnosed with it. What neural deficits are most consistently present? What about people who do not present with the typical abnormalities? Interestingly, there have been at least two cases where a patient presented with developmental prosopagnosia but did not display typical anomalies, which goes to show that there is much researchers still do not know about prosopagnosia (Jones & Tranel, 2001; Nunn, Postma, & Pearson, 2001).

Researchers need to study friendship both within and between cultures. Some aspects of friendship are universal, but many parts of it are cultural. What characteristics of friendship are cultural, and how does that change how it should be studied? How do those differences influence the empirical results of research? In schools, we have talked about the need for school reform and issues of stigma in the school system. What kind of non-visual curriculum could be used, beginning in preschool, to be more inclusive? What do schools need to add to their social environments to lessen bullying and strengthen community? Very little research has been done on blind adolescents in the mainstream school system. How are they doing? We do not really know! Additionally, what methods of advocacy are best for lessening stigma and improving outcomes for marginalized groups? Finally, we must remember to contextualize the results of all research studies. What role does culture play in the results of all psychological, sociological, economic, and anthropological research?

The Persistence of Friendship

All this is to show that human friendship is obstinate regardless of any barriers that stand in its way. Because humans are visually oriented creatures, the ideally imagined lifestyle is centered around things that require vision. Curriculum in schools is visually based, particularly the lesson plans for young children that focus on shapes, colors, and other basic visual knowledge (Diaz, 2008). Work environments are not designed for a person with a visual impairment to succeed without accommodation, and certain jobs cannot be performed at all (Diaz, 2008). With these disparities in mind, the social environment in these places is also affected. People like Elizabeth and Steve, discussed in Chapter Two, face challenges and loneliness in interpersonal relationships at school

and work (Diaz, 2008). With the help of counseling and peer support, Steve received the help and love he needed to become a thriving adolescent, but not every child has access to that kind of support (Diaz, 2008). Despite the numerous challenges Steve faced at school, he still worked to make and maintain lasting friendships with his peers, because he needed those relationships to survive (Diaz, 2008).

A large part of friendship is doing activities together, some of which may be difficult for people with visual disabilities to participate. Friendships begin with commonalities, but people do not have to have the same life experiences to meet and grow together; that is what is so remarkable about friendship. Friendship persists despite it all. Friendship can be used as a beautiful display of tolerance and acceptance, destroying walls and breaking down stigma. It is a way of showing the world that we are all people who deserve love and respect. The need for human relationships is irrepressible because in the end, what we truly desire is to love others and be loved by them. As John Donne (1975) famously said, “No [person] is an island.” We cannot make it through this life alone, and we need the companionship of others to survive. Friendship is universally recognized as necessary to a fulfilling life, which can be seen since the time of Aristotle (Aristotle & Oswald, 1999). The idea of obtaining and maintaining meaningful relationships is so engrained in our society that it is challenging to find a song or book that does not focus on the value of human companionship in some way. While every person in every field of study has a different opinion on what friendship is, it is still recognized as universally necessary. Four key conclusions can be drawn from this analysis of friendship in relation to visual disabilities:

1. We are social beings.

2. We desire intimacy with other human beings.
3. We thrive when we are known.
4. We thrive when we know others.

Friendship is a beautiful opportunity to show someone that they matter. We are at our best when we have others by our side, so go out and be a friend to someone – it just might be the most impactful thing you can do.

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