

THE ETHNOCIDE OF DEAFNESS: THE COCHLEAR IMPLANT CONTROVERSY

by

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Certificate of Approval

This is to certify that the accompanying thesis by Nathaniel B. Higby has been accepted in partial fulfillment of the requirements for graduation with Honors in Sociology.

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Abstract

This research project explores how various demographic information such as household income, age, and affiliation with Deaf culture can influence and shape attitudes held by culturally Deaf individuals. I produced and distributed an online survey for culturally Deaf individuals to take. This survey and the analysis that followed are both highly quantitative in nature and enabled me to find statistical correlations between the independent and dependent variables in question. To further ground my research, I utilize the theoretical frameworks of Bourdieu's concept of capital, subculture theory, and the social model of disability theory. Through this analysis and application of theory, I hope to supplement the gap in literature in regards to how social identifiers can alter perceptions and opinions held by Deaf individuals. My findings complicate conceptualizations of membership to Deaf culture and suggest that the Deaf who have accumulated a wealth of social and cultural capital are more concerned about the implications that cochlear implants have for their culture.

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Chapter 1: Introduction

Growing up, I lived under the naïve assumption that cochlear implants (CI), devices used to allow profoundly hard of hearing individuals to hear, was an universally-embraced solution to remedying profound hearing loss. A few more years, I had believed, and our society would be rid of deafness due to widespread usage of cochlear implants. This presumption was marred the summer before my sophomore year in high school when I saw the signs, both cardboard paper with black paint and the hand gestures, across the street from the AG Bell Convention in 2008.¹ Held every other year, families, audiologists, and teachers flock from across the country to the convention and partake in conversations about technology advancements, the need to navigate social challenges, and a plethora of other topics pertaining to deaf individuals who have chosen their primary language to be a spoken one. The vast majority of attendees at the convention worked in some capacity to promote the use of cochlear implants, seeing it as a way to alleviate various obstacles faced by the hard of hearing.

That summer, the convention was held in the heart of downtown Milwaukee, Wisconsin. Among the congestion that clogged the streets, the protesters stood armed with signs proclaiming statements objecting the use of both cochlear implants and spoken language. When I first saw the protesters, it began to register that they were objecting to the hearing device that I had spent my life up till now depending on. This

¹ AG Bell is a non-profit organization that primarily functions as a support group for families who have children diagnosed with hearing loss. The organization advocates for the assimilation of hard of hearing children and adults into mainstream society (Listening and Spoken Language Knowledge Center N.d.).

was difficult for me to swallow; they were protesting my use of the cochlear implant! These protestors had contradicted every assumption about the technology that I had believed to be true, and therefore successfully infused in me curiosity about these divergent opinions and the people expressing them. Following this encounter, the conversations and interrogations that I had with others revealed that the protesters on the street were members of Deaf culture. I also learned that there were many controversial aspects of cochlear implants that I had not known about. Since learning this, I've had an ongoing curiosity about this foreign group and their rationale for rejecting both medical intervention and through this, the opportunity to assimilate into hearing society.

Focus of Study

In light of the controversies surrounding cochlear implants, there is a lack of research on how external factors can influence how strongly for or against cochlear implants culturally Deaf individuals are. This study attempts to address this knowledge gap and explore potential relationships between one's demographic information and the opinions they hold in regard to the debate. I hope to increase our understanding of how factors such as income, gender, and race play a role in determining opinions held in the cochlear implant debate. Because much literature generalizes dissenting opinions towards the cochlear implant to the larger Deaf community, it is my hope that this study will show whether this generalizability is accurate or if there are culturally Deaf individuals who possess different opinions than the ones discussed in research. To uncover these relationships and understand how Deaf opinions are constructed, I

propose the following research question: *Is there a relationship between social identifiers and the attitudes that culturally Deaf individuals have in the cochlear implant debate?*

Inspiration

My interest to better understand the subject serves as the defining motivation for doing my thesis on this topic. Being a user of a cochlear implant, I believe that it is of great importance to understand the implications of my lifestyle and what it means for those who choose to reject medical intervention. Despite this differences in lifestyle choices, we share a distinctive trait that makes us unique compared to the general population. This commonality with the population in question motivates me to be better informed about their values and traditions. I also do believe that living on in ignorance about this population would be disservice to both them and to the social world at large.

Secondly, I am fortunate to have successfully been assimilated into hearing culture and believe that I can use my position within to advocate and educate my hearing peers about deafness being not just a pathological condition but also a cultural one. While I am conscious about my position within hearing culture, the lack of information and awareness about Deafness is blatant and I firmly believe it would be unjustifiable to not say anything. I believe that because of my oral upbringing, I can navigate existing language barriers between the Deaf and the hearing in attempt to impartially convey the Deaf perspective to the hearing community.

Lastly, to my frustration, there is clearly a blatant lack of discourse revolving around disabilities on our campus and in society at large. Due to this, able-bodied perceptions of disabilities are allowed to become hegemonic due to no alternative definitions being introduced. This proves problematic when it comes to how people with disabilities want to define their condition and thus potentially create disharmony between the two populations. This disharmony prevents conversation from occurring, which in turn prevents bridging between these groups. I see this thesis as a way to begin the conversation and to introduce to the abled-bodied community new ways of conceptualizing disabilities.

Thesis Breakdown and Acknowledgements

This paragraph serves as a brief overview of the content of my thesis. Following this introduction is Chapter 2. In this chapter, I will provide the foundational information necessary to understand the essence of the cochlear implant debate. Chapter 3 reviews previous literature revolving around the construction and existence of Deaf culture and outlines the controversial debate initiated by the creation of cochlear implants. Chapter 4 introduces the theoretical framework that I will use to ground my findings. Chapter 5 summarizes the methods that I have chosen to utilize to conduct my thesis research. Chapter 6 will expand on the previous chapter by presenting the findings of my research. Chapter 7 will serve as a synthesis of data, review of literature, and theory to comment on the implications that this research has for our understanding of Deaf culture and the debate at large. And following the

discussion, I will provide concluding thoughts and recommendations for further research.

Before I can commence with my thesis, I must give my appreciation to where it is due. I would like to thank everyone who helped make this thesis possible: at Gallaudet, both Katharine Spiegel and Professor Dirksen, Patty Durr at NTID, Ariele Belle at the Deaf & Hard of Hearing Services Hearing, Speech & Deafness Center, and Ruth Blackburn at the Western Institute for the Deaf and Hard of Hearing. I also want to thank Steve Clark and everyone else who helped pass on my survey. Without all of your assistance, I would not have been able to secure such a high level of participation!

I also want to express my gratitude to all the Sociology professors for their help and advice on navigating this daunting project. Without your support, this project would have been much more onerous and tedious. Thank you!

I should also say that I am tremendously appreciative of the support and wisdom my parents have imparted on me. It is hard for me to put into words how grateful I am so for all of our sake's, I will leave it at that.

Conventions Used in this Thesis

For the remainder of this thesis, those who identify as culturally Deaf people and who speak Sign as their primary language will be distinguished by a capital D, whereas the general deaf population will be referred to with a lowercase d as a reference to the pathological condition that people can experience. Also, I will sometimes employ the acronym for American Sign Language (ASL) as it is a standard way of referencing to the language.

Chapter 2: Background

In this chapter, I will define deafness and delineate the characteristics of the condition. Following this will be a brief description of deaf history and how Deaf culture came to be. Lastly, I will discuss cochlear implants and give a brief overview of the controversies revolving around the technology. This chapter serves to provide readers a foundation of knowledge necessary for understanding how the CI debate unfolded. Previous research that sheds light on the topics in question will be addressed further in the review of literature.

Understanding Deafness in Society

Amongst the panoply of ailments to which one could be subjected to, deafness exists as a prevalent physical infirmity worldwide, with 70 million of the world's population identified as having some profound form of deafness (World Federation of the Deaf n.d.). While actual numbers are hard to pinpoint due to varying definitions of deafness, in the United States alone, around 2 to 4 of every 1,000 people experience a severe form of this audio-incapacitating disability. The vast majority of individuals experiencing deafness are in their later stages of their lives, from ages 65 and up (Mitchell 2005). Studies by demographers have shown that around 90% of deaf people are born to hearing parents (Mitchell and Karchmer 2004).

The World Health Organization defines deafness as having a profound hearing loss, which ranges from having very little to no hearing (2015). There is variability in what can cause one to experience such profound hearing loss. Deafness can result from

hereditary genetic factors, ear infections, infectious diseases, or be a product of prolonged exposure to excessive noises. Damage to the cochlea, the organ that is responsible for converting sound waves to electrical signals that are communicated to the brain via nerve cells, is also another common root cause of deafness. Age-related hearing loss, otherwise known as Presbycusis, can occur in the elderly population as a result of conditions commonly associated with old age such as diabetes and high blood pressure (National Institute on Deafness and Other Communication Disorders 2013).

Besides the variety of causes of deafness, there is a diagnostic range in degree of deafness. Deafness can occur in one ear (unilateral) or in both ears (bilateral) (Clark 1981). Labels are assigned to convey the spectrum of hearing levels in decibels, which can be seen in the table below. The column on the right conveys the loss in decibels that one experiences. For example, as an individual who is profoundly deaf in both ears, I experience a hearing loss of greater than 91 decibels. The varying degrees of hearing loss are important to consider as the severity of hearing loss dictates the kind of accommodations that one receives and the treatment that one might seek.

Table 2.1: Degrees of Hearing Loss (Clark 1981)

Degree of Hearing Loss	Hearing Loss Range (dB HL)
Normal	-10 to 15
Slight	16 to 25
Mild	26 to 40
Moderate	41 to 55
Moderately Severe	56 to 70
Severe	71 to 90
Profound	91 +

Deafness in History

For centuries, the deaf have been stigmatized with the label of being incompetent; Aristotle proclaimed that those “born deaf become senseless and incapable of reason” (Gannon 1981:XXV). Saint Augustine was another prominent adversary against deafness, arguing that the condition was a sign of God’s anger towards the parents (Van Cleve and Crouch 1989). Being dismissed as uneducable and deemed societal outcasts, the deaf remained excluded from mainstream society until the 18th century. At this time Samuel Heinicke, who was inspired by Dr. Johann Ammon’s work with teaching speech and lip reading to the deaf, built the first oral school for the deaf in Germany. This paved the way for the oralist movement to take form and manifested itself in inculcating the deaf to lip read and verbally communicate. The inception of the oralist movement was recognized as an attempt to assimilate the deaf into hearing society, and was spearheaded by several determined leaders including Dr. Alexander Graham Bell and Thomas Edison (Gannon 1981). The efforts made by Bell and other oralist advocates cumulated at the Congress of Milan in 1880, where an edict banning use of manualism, a condescending reference to signed language, was enforced (Solomon 2012).

Dr. Bell suspected that deafness was a hereditary trait and worried about the prospect of “deaf variety” within the human race. He advocated for the sterilization of deaf adults and pushed to ban marriages between deaf people (Solomon 2012). His justification for this oppression led him to believe that residential and day schools for the deaf did more harm than good and only served as breeding grounds for a deaf race. He posited that the deaf be taught amongst hearing children, believing that this would

assist in their assimilation into hearing society (Gannon 1981). As a result of the oralist movement, by World War I, eighty percent of deaf children in America were being educated without sign (Van Cleve and Crouch 1989). Deaf communities, up until then, were not prevalent in the United States. This was likely a result of oralism being the predominant approach to educating deaf children until the 1970s (Van Cleve and Crouch 1989; Shapiro 1994). It was during this time in which sign language obtained legitimacy by mainstream society and was recognized as a valid form of communication.

American Sign Language (ASL) did not become the standard form of communication for the deaf in American until the early nineteenth century, when the first school for the deaf, designated as the American School for the Deaf in Hartford, was established.² Spearheaded by Thomas Hopkins Gallaudet and deaf teacher Laurent Clerc, enrolled deaf students were exposed to Clerc's French educational methods, including a more formalized system of signing (Padden and Humphries 2005). This system of signing that Clerc introduced would go on to become the foundation of the ASL which is still used today.

Armed with a formalized method of communication and a continued expansion of academic institutions for the deaf, the emergence of Deaf culture started to unfold. Free from societal exclusion and oppression, deaf schools served as spaces of enculturation where relationships and values are established and solutions to overcoming deafness are exchanged (Holcomb 2012). Through the use of ASL, the

² Thomas Gallaudet would later go on to become well-respected advocate for the deaf. Gallaudet University, the only liberal arts school in the country for the deaf, was named after him (Holcomb 2013). Due to this unique environment, Gallaudet became a place of interest in terms of conducting research on the Deaf.

Deaf have been able to build a broad network of clubs, associations, fraternities, and literary societies throughout the country (Padden and Humphries 2005). They have also managed to establish their own traditions, values, schools, theaters, art, writing, and social and political structures (Lane 2005; Swanson 1997). The number of Americans who identify themselves as part of this culture ranges from 400,000 to 600,000 (Edwards 2005).³ Despite the modest size, members make up for it with resolute loyalty.

“The Cure to Deafness”

The second half of the 20th century was a golden period for the field of bionic technology. The introduction of the implantable pacemaker was considered a crowning achievement and symbolized the benefits that such technology had for human lives. Research in discovering how to rectify hearing loss started in the late 1960s, when researchers experimented around placing electrodes in the cochlea (Solomon 2012). Californian oncologist William House continued these experiments by stimulating multiple positions on the cochlea. Despite concerns about the ethical nature of the project, he was able to garner support from biomedical engineers around the world. In 1984, the FDA approved the House Cochlear Implant for anyone over the age of 18. Six years later, FDA permitted minors to receive the implant (Blume 1999).⁴

³ The population size of the Deaf was important to keep in mind when collecting survey responses. Due to the small size of this population, I had anticipated difficulty in obtaining a high number of responses.

⁴ When the FDA first approved the use of the implant on children, it was restricted to children age two and above. Now, children around six months old are permitted to undergo the procedure to get an implant (United States Food and Drug Administration 2014).

Cochlear implants, as defined by the Food and Drug Administration (2014), are “electronic hearing devices...implant[ed] into people with severe to profound hearing loss to produce useful hearing sensations.” The device consists of two parts: the external component that sits behind the ear and comprises of the microphone, sound processor, and transmitter system, and the surgically implanted internal component that acts as the receiver implant and electrode system. Unlike the hearing aid, which amplifies sound for its users, cochlear implants are used to produce hearing sensations for individuals who experience severe or profound hearing loss (Christiansen and Leigh 2002). Because of this, not every person who experiences a hearing loss is a viable candidate for an implant.⁵ Individuals experiencing bilateral hearing loss greater than 90 decibels and have minimal speech perceptions are considered the ideal candidates for the procedure (National Institutes of Health 1995). Candidates that do not fit these criteria are less likely to be considered for undergoing the procedure.

The cost of the implant, which includes evaluation, surgery, and rehabilitation, can run up to \$100,000. Some insurance companies can relieve patients of the financial burden by covering most of the costs (American Academy of Otolaryngology—Head and Neck Surgery 2014). Despite the high costs, as of the end of 2012, approximately 324,000 people worldwide have undergone the procedure to receive implants. In the United States, around 58,000 adults and 38,000 children are recipients of the implant (National Institute on Deafness and Other Communication Disorders 2013).⁶

⁵ Candidacy is also determined by the cause of hearing loss. Those hard of hearing as a result of inactive hair cells tend to be the common and ideal candidate for an implant (Christiansen and Leigh 2002).

⁶ Solomon (2012) illuminates us on the racial and economic composition of those who receive an implant. He finds that recipients tend to be white upper-middle class Americans.

Success with the implant is contingent on several factors. The quality of the rehabilitation that the recipient receives following the surgery and activation of the implant, the amount of exposure to noise, and technical soundness of the implant are all elements that can impact the outcome of the implantation (United States Food and Drug Administration 2014). Another contributing factor that has made success more challenging for older recipients is the duration of deafness. The longer the period of time that one is deaf before getting an implant, the greater the increase in the language gap is between the recipient and their hearing peers (Mann 2010). Regardless of these conditions, the efficacy of implants can vary from modest to insufficient. There is no exact science to determine the outcome of the procedure and how well one will hear with the implant. This is one of the risks that patients take when they undergo the procedure.

When word of the cochlear implant went public, the biomedical engineers behind the project were taken aback to discover that a significant portion of the Deaf community responded with dismay to the technology (Sparrow 2005). One of the primary concerns raised addressed the ethics of implanting deaf children. The National Association for the Deaf (1991) wrote a position paper deploring the FDA's decision to approve the device for minors, raising concerns about the scarcity of information regarding long-term risks of implantation. They also called into question the parent's ability to make an informed decision due to their ignorance of Deaf culture and communication. Other concerns have been raised by members of the Deaf community, ranging from the threat of ethnocide against their culture to the medicalization of a

condition that they believed was not a disability (Levy 2002). These concerns raised by culturally Deaf individuals will be discussed further in the review of literature.

Chapter 3: Review of Literature

What is Deaf culture?

The hearing impaired population is not a uniform population; it can be subdivided into two major categories. There are those that identify themselves as culturally Deaf and then there are those who communicate using speech and lip reading, or what some refer to as “oral communication” (Pray and Jordan 2010). Bonnie Tucker (1998) distinguishes between these two groups by explaining that deaf individuals who have assimilated into hearing society are viewed as deaf (with a lowercase d), while deaf individuals who view deafness as a cultural identity rather than a disability refer themselves as Deaf (with a capitalized d). However, scholars have noted this line can be blurred for some individuals, noting that later deafened individuals can opt to choose between these two different groups (Lane 2005; Pray and Jordan 2010).

Many scholars agree that the main distinctive characteristic of Deaf culture in the United States, beside hearing loss, is the usage of American Sign Language (ASL) (Edwards 2005; Holcomb 2013; Padden and Humphries 2005). ASL has grown to be recognized by linguistic scholars as having a complex structure equal to spoken languages (Sparrow 2010; Turner 2006). Another attribute that grounds the value system of Deaf culture is the rejection of the idea that they have a disability. Instead, they choose to perceive their identities as a cultural linguistic minority (Sparrow 2010). For the Deaf, they value deafness as a trait, like hair or skin color, and see it as something that does not need to be eliminated (Edwards 2005; Swanson 1997). The

Deaf argue that their disability is only a social construct created by hearing society (Levy 2002; Sparrow 2005). Neil Levy (2002) argues for the rejection of this claim, arguing that disadvantages endured by the deaf are natural, such as the inability to hear sounds signifying danger.

Research on the Deaf culture reveals its complex and highly evolved state. Over the years, the Deaf have been able to build a broad network of clubs, associations, fraternities, and literary societies throughout the country. These networks are generally kept private and out of the public's eye; this is done out of interest to preserve the integrity of their culture (Padden and Humphries 2005). Scholars Lynne Swanson (1999) and Harlan Lane (2005) both elaborate on the legitimacy of Deaf culture by explaining that it has established its own language, traditions, values, schools, theaters, art, writing, and social and political structures. Its naming practices and etiquette are also distinctively different from the hearing world (Edwards 2005). A synthesis of scholarly research on Deaf culture reveals how intricate and dynamic the community is. While scholars have acknowledged and appreciated the existence of this culture, many have indicated that there is a lack of awareness in the hearing world about this unique community (Edwards 2005).

Researchers have noted how significant Deaf culture is to its members. The Deaf culture is renowned for its high rate of endogamous marriages, which ranges around 90 percent (Edwards 2005; Lane 2005). Bernard Baertschi (2013), in his research on pre-implantation genetic diagnosis, notes that Deaf parents are very likely to reject treatment for deafness for their children in hopes of passing their culture to the next generation. He also notes that Deaf parents have been observed attempting to

select embryos that may increase chances of giving birth to deaf children. When asked, many members of the Deaf community would reject the option to hear (Sparrow 2005; Tucker 1998). While most scholars emphasize the community's desire to be isolated from the hearing, Edwards (2005) argues that Deaf Americans have always pursued inclusion. He explains that this inclusion could only happen on Deaf terms, as they feel that the burden of assimilation should not just fall on them to remove the obstacles. It is clear that the Deaf are proud of their condition and see it desirable to produce deaf children. Whether they strive for inclusion into hearing society is not clear.

Curing Deafness

The debate that my thesis concentrates on is the implantation of the cochlear implant on the profoundly deaf. Approved by the FDA in 1984, the device directly stimulates the brain where sound is normally received by hearing people (Solomon 2012). There is discrepancy between scholars on the extent to which the CI restores one's hearing. Baertschi (2013:72) describes the CI as "a cure for deafness". Solomon (2012), on the other hand, argues that the CI only allows for something that resembles hearing. It should be noted that the success of the cochlear implant is contingent on several factors including the quality of the rehabilitation that the child goes through post-implantation and the amount of exposure that the child receives to speech (Padden and Humphries 2005). Mann's (2010) findings reveal that infants are more likely to be guaranteed success with their implant. This is because implanting an infant before language development and acquisition occurs allows for them to adapt to spoken language quicker and easily familiarize themselves with surrounding noises.

Testimonies revolving around the success of the implant have been rampant, convincing other skeptical scientists to the effectiveness of the device. John Niparko (1999), a surgeon at John Hopkins, stated that around 80 percent of children receiving the implant before the age of four were able to successfully move out of special education and be mainstreamed into a regular classroom. There is a consensus by many scholars that the implant is highly effective and allows for full integration into hearing society (Levy 2002; Solomon 2012).

Many scholars attribute the popularity of the CI to the fact that 90 percent of deaf children are born to hearing parents. Most of them argue that the majority of hearing parents desire to have their children live in the hearing world (Edwards 2005; Pray and Jordan 2010; Solomon 2012; Sparrow 2005; Sparrow 2010). This pattern is attributed to the mentality that hearing society consists of more social opportunities and that hearing parents have been conditioned to believe that oral communication is essential one's social success. Christiansen and Leigh (2002) describe how the medical community encourages parents to implant their child before they reach the critical period of language development. This pressure plus the desire to give their child more opportunities are several factors that persuade hearing parents to implant their child.

Debating Cochlear Implants

My thesis will revolve around the criticisms launched against cochlear implants by the members of Deaf culture. Neil Levy (2002) concisely articulates the different arguments that the Deaf community has utilized in protesting the use of the CI. One of the main arguments used by some Deaf individuals is that it is inappropriate for

deafness to be treated as a medical condition when it is not a disability to begin with. As previously explained, many of the Deaf believe that their disability is socially constructed and can be alleviated if those within hearing society can make the effort to accommodate their needs (Levy 2002; Sparrow 2005). With this mindset, they view the CI as the “ultimate denial of deafness” (Tucker 1998). A group of Deaf individuals released an article on their opposition towards the CI, asking others, “Why not bleach the blacks and blacken the whites? When are they going to stop, once and for all, using us as guinea pigs” (Blume 1999:1263). Most of the Deaf believe that this “medical disorder” mindset allows the hearing to assume that deafness as a trait that needs to be alleviated and also implies that Deaf individuals are of lesser worth in their eyes (Levy 2002).

Another argument that Levy (2002) presents is that society cannot engage in behaviors that would undermine or destroy a culture. This claim that hearing society is participating in actions that threaten deaf culture is supported by Holcomb’s (2013) research, when he reveals that the National Institution on Deafness and Other Communicative Disorders allocated four hundred million dollars for the purpose of eradicating deafness and other communicative disorders in 2009. Members of the Deaf community argue that this kind of funding is another form of eugenics. Having been the subject of eugenic movements in the past, many Deaf individuals believe that cochlear implants is a modern-day manifestation of this mindset and see its success as a threat to the existence of their culture (Lane 2005; Solomon 2012; Sparrow 2005). Members of the Deaf culture make it clear that they believe that the government should

not endorse or participate in funding research for hearing restoration, as this will later lead to the collapse of their community (Holcomb 2013).

Another component of this controversy is the use of CIs on deaf children. Due to early testing, parents are able to find out whether their child is hearing or deaf soon after the infant is born (Solomon 2012). With this knowledge, parents are forced to make a decision for their child. This is a scenario that many Deaf individuals argue to be unethical - the parents should not make a decision that will determine whether their child grows up hearing or Deaf (Sparrow 2005). Stuart Blume (1999) contributes to our understanding of this ethical argument by suggesting that the deaf child should have the right to choose which language he or she want to use to communicate. Scholars also note that the Deaf community expressed concern about the child's ability to be fully assimilated into a culture. With the long-term success of CIs still unclear, many Deaf individuals argue that if an implanted child fails to adopt oral speech as their primary language, he or she will have already lost time that could have been used to learn ASL (Sparrow 2005). Therefore, deaf children with cochlear implants will not be able to navigate Deaf community due to lack of fluency in ASL (Lane 1993). This movement towards oral assimilation for deaf children has compelled Deaf culture leaders to articulate that this is "linguistic genocide" (Edwards 2005; Turner 2006). Sparrow (2005) articulates the idea that this oral approach represents the desire of the dominant hearing culture to impose their values and languages on the Deaf. However, Tucker (1998) counter-argues by saying that it is illogical for parents to not choose to implant their child, arguing that the hearing world offers more opportunities than does the Deaf culture. As one can draw from all of the previous research, members of the

Deaf community see the CI is an unethical procedure which forces the recipients to adopt an oral form of communication and forgo a culturally Deaf identity.

Members of Deaf culture have integrated their disdain for the CI into their cultural practices. Tucker (1998) illuminates this by explaining that the sign language for CI is a two-fingered stab behind the ear, supposedly resembling a vampire sucking blood out of the cochlea. She has also noted that students with CIs enrolled at deaf institutions like Gallaudet are treated harshly. Deaf community members continue to openly dissent against the CI and the oral deaf, arguing that the two combined contribute to the growing threat against their culture (Pray and Jordan 2010).

The backlash from members of the Deaf community was initially unexpected by CI advocates. Stuart Blume (1999) writes about the inventors' response to this backlash. He quotes Dr. House, one of the main inventors of the CI, as he justifies his work by saying that if the medical community failed to act to correct a problem, then they've violated their oaths as healers. Still, to this day, the medical community sees the CI as a beneficial device that provides opportunities to individuals with profound hearing loss, opportunities that they would not have been able to have if they were to remain Deaf. There has been growing acknowledgement of the Deaf culture within the medical community. Audiologists and other doctors have encouraged parents to talk to members of the Deaf culture in order to learn of other options for their deaf child besides cochlear implants. Despite the increased awareness of Deaf culture by the medical community, the majority of hearing parents are still choosing to implant their child with a CI (Edwards 2005). Research reveals that the medical community is

gaining awareness of Deaf culture but because deafness is still being perceived as a disability, hearing parents are still likely to opt for a CI for their child.

The literature on this debate reveals the multifaceted nature of this controversy. As Blume (1999) puts it, both sides of the debate are correct in what they believe in. Scholars like Padden and Humphries (2005) have proposed a variety of different solutions to the debate. In their analysis of this debate, they suggest that recipients of cochlear implants should be taught both ASL and English simultaneously. This is regarded by the linguistic and Deaf communities as being “bi-bi”. Doing this would enable implant recipients, when they reach maturity, to choose which form of language that they would prefer to use for the remainder of their lives. Tucker (1998) disagrees, arguing that the culturally Deaf need to recognize their moral and ethical obligation to hearing society, and backs this up by saying that cochlear implants will not eliminate deafness but only reduce ramifications of the disability. Several scholars, like Edwards (2005), believe that the hearing world needs to gain appreciation for this unique culture and demonstrate sensitivity towards this population when endorsing research on hearing restoration. Sparrow (2010) argues that the survival of Deaf culture relies on deaf children of hearing parents. Lastly, it is true that many scholars agree that in order for the Deaf culture to survive, it is necessary that the hearing world change how it perceives deafness. As it stands, deafness is seen as a medical condition that requires medical intervention. If the hearing took into account the cultural implications of being deaf, then more sensitivity might be demonstrated for Deaf culture, thus increasing the chances for their survival (Holcomb 2013; Lane 2005; Padden and Humphries 2005; Sparrow 2005).

Very little research has been done to understand how demographic information factors in the shaping of the opinions held by the members of the Deaf community. Elaine Gale (2010) conducted a study that attempted to address this knowledge gap. Her study of the Deaf community revealed that the majority of her sample advocated for bilingualism in cochlear implants users and believed that the parent's decision to implant a deaf child should be taken with extreme consideration. Her findings also indicated that some culturally Deaf respondents did not reject the use of cochlear implants, therefore suggesting that the community is not as resistant to the device as it was when it first came out. However, the demographics she used to understand variability in opinions were limited to degree of hearing, education attainment, and language.

Limitations of Literature

There is a plethora of literature discussing Deaf culture and the raised objections to the use of cochlear implants. Unfortunately, a clear literature gap exists in regards to understanding the role that intersectionality plays in determining how various Deaf members perceive the cochlear implant. Such information could reveal the existence of subcultures within Deaf culture and could complicate our understanding of the structures of Deaf culture. Gale's research comes closest to addressing this gap but does not manage to flesh out existing relationships between one's demographics and their possessed opinions. Because of this, there is no research that describes whether this disdain towards cochlear implants is universal within Deaf

culture or limited to the outspoken members of the community. It is this gap in literature that I aim to help close with my research.

Chapter 4: Theoretical Framework

I draw from three sociological theoretical frameworks to ground my thesis. The debate revolving around cochlear implants is best understood through a combination of subculture theory, Bourdieu's capital theory, and the social model of disability theory. A combination of these three theories is necessary in order to frame the existence of various existing attitudes in the cochlear implant debate. Utilization of Bourdieu's theory of capital enables us to understand how various attitudes in the debate are reproduced and transferred. Intersecting this with the social model of disability theory, one can see how this model exists as a manifestation of capital accumulation. Lastly, subculture theory is used to understand membership to Deaf culture and how the accumulation of capital may be a determiner of one's position inside or outside Deaf culture.

Subculture Theory

Theories revolving around the concept of subcultures bring attention to populations that fail to conform to dominant cultural norms. Used commonly to explain various forms of resistance against dominant cultures, specifically youth resistance, the study of subcultures recognizes that certain mores and traditions of cultures may not be as widely accepted by the members within these groups. In studying subcultures, Sarah Thornton (2005) explains that scholars pay attention to cultures regarded as insignificant by other humanities disciplines.

A plethora of theoretical definitions exists for the concept of subcultures. Subcultures, as defined by J. Patrick Williams (2011), function as an antithesis to mainstream/dominant culture. Milton Gordon (1947) proposes a broader definition, arguing that subcultures exist as sub-divisions of a mainstream culture. He elaborates that subcultures comprise of factorable social variables such as socio-economic status, ethnicity, residency, and religious affiliation. John Clark et al. (1975) provide another alternative definition for subcultures, suggesting that subcultures revolve around certain activities, values, or use of material or space. The authors go on to discuss the bonds within a subculture, arguing that members of a subculture can have either weak or strong tie. Ross Haefler (2014) provides a concrete definition that I will use for the remainder of the thesis. He posits that subcultures are a, “relatively diffuse social network having a shared identity, distinctive meanings around certain ideas, practices, and objects, and a sense of marginalization from or a resistance to a perceived ‘conventional’ society.” (2014:16). In this working definition, he synthesizes John Clark et al.’s understanding that subculture revolves around certain activities and values with Williams’ proposal that subcultures act as an antithesis to dominant culture. Haefler crafts his definition so that it encompasses both resistance and marginalization as forms of relational dynamics that can occur between subcultures and the dominant culture that they exist within. Due to the encompassing nature of his working definition, I choose to use Haefler’s interpretation of subcultures to frame the Deaf culture in the cochlear implant debate.

Scholars have noted that there are several avenues in which subcultures can be created. David Downes (1966) argues that the creation of subcultures occurs as a

response to either positive or negative demands of the social and cultural structures. Other scholars such as Mike Brake (1985) argue that subcultures arise in response to contradictions, or hegemonic ideas, existing in the dominant culture. Albert Cohen (1955) explains that in the face of hegemony, individuals who are disadvantaged gravitate towards one another and create new norms that they are capable of fulfilling. As a way to resolve these contradictions, subcultures, using Haefler's (2014) words, are an attempt to solve tensions resulting from these conflicts. It is apparent that there is a consistent theme of emergence as a response to societal conditions found in the research on subcultures. Considering the history of the deaf, it is ostensible that the Deaf community emerged as a response to pervasive disadvantaging hegemonic social ideas that led to the medicalization of their impairment and mandated oralism. As a way to alleviate this oppression, the Deaf utilized a formal system of sign to connect and developed a community that could deflect existing tensions between the hearing and the deaf. Within this community, the Deaf are able to function without the presence of these oppressive norms disadvantaging them.

A theme begins to emerge when reviewing subculture literature. Subcultures, as gleaned from both the definitions constructed and the patterns of their emergence, demonstrate some form of resistance against dominant society. The emergence of subcultures is treated as an attempt to undermine hegemonic social meanings that enforce certain ideals and norms upon subordinates within a culture (Haefler 2014). An example of a hegemonic norm that can encourage subcultural behavior is the medicalization of certain body conditions. Jocelyn Cornwall (1984) illustrates this when she says, "subcultures, groups, or individuals may vary in their readiness to

apply, accept, or reject medicalized definitions” (1984:250). The Deaf demonstrate this with the rejection of hearing restoration, therefore resisting against the medicalization of deafness. Language can be seen as another hegemonic norm that has sparked tension between the Deaf and the hearing population. Past attempts to assimilate into hearing society can be interpreted as an attempt to enforce oralism on the deaf population. These attempts undermined the quality of life for those subjected, thus encouraging the Deaf to adopt an alternative and subcultural lifestyle by using ASL.

A major discussion point within the study of subcultures is how membership is determined. Williams (2011) articulates that membership occurs through a labeling process; individuals with similar values and interests as a subculture attach themselves to the label that signifies those shared affinities. Cohen (1955) elaborates on how membership is determined, saying that, “the consistency of our own conduct and of the frame of reference on which it is based with those of our fellows is a criterion of status and a badge of membership.” (1955:47). Whether one is recognized as an authentic member of a subculture is subjectively determined, occurring through a process of constructing both meanings and criteria in the context of social settings and relationships (Haefler 2014). Applying these ideas of subculture membership with Deaf culture, the practice of using ASL and pride of being Deaf are two of several central components to Deaf culture. Hard of hearing individuals who fulfill both of these qualifications internalize the same values and traditions that the members of the Deaf community share. As a result of this shared interest, membership to the community is subjectively granted to these individuals.

Culture is generally understood by social scientists to be a way of life comprising of shared symbols, language, norms, and values (Jenks 1993). One can make the case that the Deaf way of life fits the criteria of a culture due to their shared identity as hard of hearing individuals with similar values and tastes. However, for the purpose of this thesis, I argue for the recognition of Deaf culture as a subculture rather than a culture. I suggest this for one main reason. Research on subcultures sheds light on the inception of these groups occurring as a response to mainstream dominant societal norms. In the case of Deaf culture, the community emerged as a way to alleviate existing tensions induced by the norms of spoken language and medicalizing disability. Since forced assimilation backfired, the Deaf began to utilize a system of communication that enabled them to create networks and exchange information with each other. Coexisting with others who are fluent in ASL no longer disadvantages Deaf individuals; they are able to fully participate in their own culture with no language barriers to navigate.

Additionally, other scholars have established a precedence of acknowledging the Deaf community as a subculture. Lipson and Rodgers both reference Deaf culture as being a strong example of a subculture, arguing that its strength comes from, “people shar[ing] language, perspectives, mores, and behaviors, many of them since infancy or early childhood.” (Lipson and Rodgers 2010:213). Due to early onset disabilities that cut them off from mainstream hearing society, they are unable to be socialized into dominant abled-bodied culture, As a result, they are more likely to gravitate towards others with similar deaf identities. By conceptualizing Deaf culture as a subculture, we allow room for comprehending how this subculture was constructed in

the context of being subjected to both hegemonic social norms and medicalized definitions imposed by hearing culture. Additionally, utilization of this theoretical framework allows for us to understand how the Deaf resist these oppressive ideas through the construction and transmission of cultural tastes and values within their community.

Bourdieu's Capital Theory

In response to society's understanding of the economic capital paradigm, Pierre Bourdieu (1986) argues that it is impossible to interpret the social world without understanding that other forms of capital can be accumulated and be used to define one's position in their social setting. He proposes that alongside economic capital, transmission and acquisition of social and cultural capital could determine life experiences and outcomes (1986). His understanding of capital consumption has allowed social scientists from a myriad of disciplines to use it as a paradigm for understanding social stratification, subgroups, cultural tastes, etc. The widely applicable nature of capital theory enables me to efficiently frame the cochlear implant debate and engender greater understanding of how capital exchange and consumption can influence attitudes held by the culturally Deaf.

Bourdieu defines capital as being, "accumulated labor... which, when appropriated on a private, i.e., exclusive, basis by agents or groups of agents, enables them to appropriate social energy in the form of reified or living labor." (1986:81). He emphasizes the distribution of capital being representative of the structure of the social world (1986). This means that those who benefit the most from the structure are more

likely to accumulate more capital than those who do not benefit from the structure that they cohabitate in. This distribution of capital puts some at advantageous positions and others at disadvantageous positions. This argument parallels Tucker's (1998) research showing that the household incomes of the deaf are significantly lower than those who can hear. This is best understood by recognizing that the inability to hear is not aligned with the social rules that determine one's social position within society. Because of this, the deaf are subjected to acquiring less capital, and therefore hold lower social positions.

Bourdieu (1986) originally conceptualized the paradigm of cultural capital to explain the patterns between success of children in academic institutions and the level of education of the parent. In doing so, he suggests that cultural capital is responsible for cultural reproduction and the transmission of cultural knowledge, habits, and taste from one generation to another (1986). Bourdieu (1986) defines cultural capital as manifesting itself in three forms: the embodied state, the institutionalized state, and the objectified state. For the purpose of this thesis, I will be using the embodied state to best understand how cultural capital takes form within and outside Deaf culture as well as understanding how transmission occurs.

The embodied state of cultural capital is what Bourdieu (1986) perceives to be the embodiment of cultural values and traditions. Acquired over a long period of time, embodied cultural capital is obtained unconsciously and occurs through processes such as socialization and conditioning. For instance, the concepts of highbrow and lowbrow culture are manifestations of cultural capital. Those that are able to accumulate a wealth of highbrow culture through their family or peers are able to participate in what

others conceive as highbrow, such as attending operas or art museums. For the purpose of this thesis, I will discuss the Deaf as having their own form of cultural capital, which I will refer to as “Deaf capital” for the remainder of the thesis. The Deaf community, as described by scholars, revolves around shared values and traditions. The internalization of this information is contingent on one’s accumulation of Deaf capital. Having no Deaf cultural capital prevents individuals from being able to adopt the Deaf code. Due to this, they would not be able to claim membership to Deaf culture. Therefore, my thesis operates with the understanding that membership to the Deaf community is contingent on one’s accumulation of Deaf capital and that various attitudes held in the cochlear implant debate are manifestations of this kind of capital.

In his studies, Bourdieu also concentrates on linguistic capital. In *Language and Symbolic Power*, Bourdieu (1991) attaches value to the quantity of linguistic capital that a speaker has. He argues that the possession of linguistic capital enables its possessor to exert symbolic power, therefore granting them ability to obtain higher social positions (1991). However, in order for one to assert symbolic power through their linguistic capital, the capital needs to be valued by those being subjected to the exertion of the symbolic power. In the instance of American Sign Language, it can be deduced that symbolic power exerted through the use ASL would only be effective on those who value the language, or in this specific case, the Deaf. Doing the same for the hearing population would not yield the same outcome because sign language does not have the same value that spoken speech does.

This understanding of linguistic capital allows for us to recognize that this form of capital is a manifestation of embodied cultural capital (Bourdieu 1991). Not only are

individuals conditioned to value certain languages over others, socialization for them occurs through the use of these languages. Both the accumulation of social capital and the transmission of cultural capital are dependent on common language usage. For instance, a hearing person is unlikely to obtain Deaf capital due to existing language barriers preventing them from conversing with the Deaf. In this example, one sees linguistic capital as a dictating force that determines whether one has access to the acquisition of social capital as well as access to the accumulation of cultural capital.

Bourdieu acknowledges that the accumulation of cultural capital is contingent on one's accumulation of social capital, and vice versa (1986). He defines social capital as being the,

“aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition- or in other words, to membership in a group – which provides each of its members with the backing of the collectivity-owned capital, a credential which entitles them to credit...” (1986:86)

In this definition, Bourdieu (1986) defines social capital as being the social networks established between individuals. If one were to have a wealth of social networks, then they are identified as having accumulated more social capital than one who does not have as many networks. The intensity of these relationships can vary, ranging from close friendships to strangers who've attended the same alma mater. Membership to certain groups or classes may be contingent on certain social capital accumulated. Tying this back to Deaf culture, I propose that ties with other Deaf people manifests itself as Deaf social capital whereas ties with hearing friends takes the form of hearing social capital. Through these respective forms of social capital, the

transmission of cultural capital occurs, thus reproducing various attitudes and customs belonging to each culture.

The use of Bourdieu's capital theory helps us understand how cultural values and norms are transferred and internalized. This allows for a better understanding of how Deaf culture is constructed and reproduced. From this, one can appreciate the significance that ASL has in the transmission of Deaf cultural capital. With this in mind, the reader can understand how Deaf attitudes towards the cochlear implant debate are reproduced through the accumulation of Deaf capital.

Social Model of Disability Theory

In order to frame my research, I draw from the theoretical framework of the social model of disability to further understand underlying ideologies present in the cochlear implant debate. The social model of disability theory, also known as the 'social barriers model of disability', differentiates between the concepts of disability and impairment (Anastasiou and Kauffman 2013; Goering 2010). Impairment, according to those who have accepted this interpretation of disabilities, refers to the pathological condition that limits individuals through physical, mental, or sensory impairment (Barnes 1991; Oliver 1996). Disability on the other hand, is seen as a byproduct of social and economic structures (Barnes 1991; Oliver 1996). In the words of sociologist Mike Oliver, disability "is wholly and exclusively social" (1996:35). The 1976 statement of the Union of the Physically Impaired Against Separation (UPIAS) brought this model to the forefront of disability studies and adequately illustrates the social model of disability by stating,

“In our view, it is society which disables physically impaired people. Disability is something imposed on top of our impairments by the way we are unnecessarily isolated and excluded from full participation in society. Disabled people are therefore an oppressed group in society. To understand this it is necessary to grasp the distinction between the physical impairment and the social situation, called “disability”, of people with such impairment. Thus we define impairment as lacking all or part of a limb, or having a defective limb, organism or mechanism of the body and disability as the disadvantage or restriction of activity caused by a contemporary social organization which takes little or no account of people who have physical impairments and thus excludes them from participation in the mainstream of social activities. Physical disability is therefore a particular form of social oppression.” (1976:3-4)

UPIAS posits that disabilities are not problems in themselves but are disadvantaging because of society’s false perceptions of impairments. The disadvantages experienced by disabled people, Oliver (1996) and UPIAS (1976) suggest, has been institutionalized and it is only when able-bodied society rectifies this that oppression will cease. Ending all forms of oppression will result in a society free of disability (Oliver 1996).

As it can be seen, proponents of this social model use the distinction between impairment and disability to draw lines between the biological conditions and the social aspects of disabilities. The model emphasizes the social oppression that able-bodied society exerts on individuals with impairments. Scholars have noted that the model’s concentration on social processes fails to take into account the biological and mental components of disability (Anastasiou and Kauffman 2013, Oliver 2013).

Despite criticism, this new way of conceptualizing disability brought with it greater feelings of self-worth and stronger collective identity for disabled people (Mulvany 2000). This new shift in ideological thinking served as a vehicle for widespread reform for how people with disabilities are accommodated, such as making

public buildings more accessible, introducing anti-discrimination laws, and making public transportation more inclusive (Oliver 2013).

One can see how this model opposes the medical model, which sees disability as a bodily or mental state and as something necessary to “fix” (Goering 2010). Scope, a charity directed towards the inclusion of disabled people, describes the medical model as looking for what is ‘wrong’ with the person rather than seeing what the person needs (Scope n.d.). There are parallels between the theory of medicalization and the medical model of disability. Peter Conrad (1992) understands medicalization as to be, “the defining of a problem in medical terms and using medical language to describe [it], adopting a medical framework to understand [it], or using medical intervention to “treat” it.” (1992:211). This theory is used to understand the mentality behind diagnosing certain conditions as medical conditions. Mary Burke (2011) alludes to this in her study of the medicalization of gender variance, in which she discovers that transgendered activists overwhelmingly reject the pathological label. Besides the transgendered population, many other minorities have been subjected to the oppressive forces of medicalization, such as homosexuals and intersexed individuals (Lareau 2003).

Medicalization encompasses a wider range of nonmedical conditions while the medical model of disability focuses on the idea of physical impairments such as loss of limbs or blindness. Cochlear implants serves as a prime example of how the medical model can compel scientists and medical practitioners to correct such impairments. This model, Goering (2010) argues, is hugely problematic as it enables one to overlook social, economic, or attitudinal conditions that potentially oppresses

individuals with impairments. One also sees this articulated by members of the Deaf culture when they posit that the production and utilization of cochlear implants indicates a disregard of cultural aspects of deafness and puts the responsibility on the Deaf to assimilate into hearing society.

Previous writings discussing the arguments proposed by the culturally Deaf indicate that the majority of the Deaf have already adopted the social model of disability. Specifically, when the Deaf critique cochlear implants as a device intended to 'fix' deafness and how it overlooks cultural implications of deafness, they challenge the medical model accepted by hearing society. While previous literature discuss the embracement of the social model of disability in Deaf culture, none call into question how potential demographics that may make it so certain Deaf individuals are more likely to internalize the social model of disability at a greater degree than other Deaf individuals. In doing this research, I attempt to address this gap in our understanding and explore how adoption of this ideology can be determined by various social identifiers.

Chapter 5: Methodology

The research design that I have chosen to employ for this thesis project examines both the demographics and the attitudes of individuals who identify as culturally Deaf. This analysis will enable me to answer my research question: *Is there a relationship between social identifiers and the attitudes that culturally Deaf individuals have in the cochlear implant debate?* In order to answer this question, I depended heavily on electronic surveys as my research instrument to best access my target population.

Data Collection

Selecting the instruments in which I would conduct this research project occurred through a process of elimination. As previously discussed in my literature review, individuals who identify as culturally Deaf primarily communicate through American Sign Language. My lack of familiarity with American Sign Language combined with an almost non-existent Deaf population in Walla Walla led me to conclude that face to face or webcam interviews would not be feasible for this project. The research question that I propose inquires about relationships between attitudes and demographics. I knew that to answer this question, I would need to obtain a large sample size. With this in mind, I concluded that doing a survey would be the best research instrument to use. The survey was created using the Qualtrics program and was first posted on Facebook on February 5th. The online survey closed on April 3rd. A

paper-copy of the survey was also written and sent to regional service centers for the deaf and hard of hearing.⁷

Sample Survey Design

Once respondents provided informed consent, which assured the anonymity of their responses, they were asked to answer 31 questions on an online Qualtrics survey.⁸ The questions presented themselves in the same order for all the respondents participating in the study. Each question, including the informed consent statement, was written at a middle school reading level.^{9,10} The first five questions inquired about the participant's demographic information, specifically age, gender, race/ethnicity, highest level of education achieved, and household income.

The following 10 questions asked for further demographic information pertaining to their background as a hard of hearing individual. These questions included an inquiry about the severity of their hearing loss. Here, participants had the option of indicating the degree of their hearing loss. The survey also inquired about whether their hearing loss occurred postnatal or prenatal. Other questions included in this set asked about the language they used the most, whether they attended a school for the deaf or not, and their hearing device usage history. The next set of questions inquired about the participant's social and family circles, specifically asking about

⁷ Unfortunately, no participants returned the paper-copy of the survey. For the remainder of the thesis, I refer just to the Qualtrics program as it was the only means of collecting data in this project.

⁸ See appendix A for a copy of the informed consent letter.

⁹ Bonnie Tucker's (1998) research shows that the average reading level of a deaf person is at the fourth grade. To avoid excluded members of the Deaf community, I decided to write the survey so that it could be understood by those with lower reading levels.

¹⁰ The website that I used to ensure low grade reading level was called <http://read-able.com>. The average reading level of my survey ranged from 7th to 8th grade.

relatives with any form of hearing loss, the number of friends who identified as culturally Deaf, and the number of hearing friends they believed to have. I also asked about how often they interacted with both their hearing and hard of hearing friends. To assess how involved individuals were in Deaf culture, I asked participants to indicate culturally Deaf events that they've attended in the past year, such as theater performances for the Deaf or Deaf community clubs.

The last section of the survey comprised of eleven statements regarding cochlear implants, the cultural and medical definition of deafness, and the threats imposed on the culture and the language. These statements were carefully selected to represent the common arguments and opinions expressed in the literature. Participants were asked to indicate their stance by choosing from a Likert scale with five options ranging from strongly don't agree to strongly agree. Participants had the option of indicating that they were indifferent or indecisive about the provided statement by selecting the neutral option. Please see appendix B for a complete copy of the survey questions.

Survey Distribution

The sample was drawn by using non-probabilistic sampling methods. The reasoning for this is because I did not have access to an exhaustive pool of deaf or hard of hearing individuals who I could randomly select for the study. Because the sample pool self-selected themselves into the study, I ran the risk of recruiting subjects who may have been more interested on the topic than the general Deaf population is, thus

potentially skewing my data to reflect this. However, the diversity in the responses obtained led me to believe that this did not occur.

The URL link to the survey and a brief explanation of my project was posted on various Facebook groups that are used predominantly by hard of hearing or deaf individuals.¹¹ Anybody who had some form of hearing loss was encouraged to self-select into the study. Several Facebook users asked to share the survey with their friends, which I granted them permission to do. This snowball sampling enabled my survey to reach hard of hearing individuals who may not be active users of Facebook or active in the groups that I posted the survey in. I chose Facebook as a research tool because I theorized that the visual orientation of the community would encourage members to gravitate towards social media as a means to connect and engage with other culturally Deaf individuals.

I sent an email to several service centers for the deaf and hard of hearing in Washington and nearby states asking for assistance in distributing the survey. Only two centers responded, the Oregon Association for the Deaf and the Western Institute for the Deaf and Hard of Hearing, and both assisted by posting the survey on their website or Facebook page. This method of distribution still required the sample to self-select themselves into the study.

Lastly, the survey was distributed via email to the students and faculty of Gallaudet University. Students and faculty members received in the email a brief description of the

¹¹ The names of Facebook groups in which I posted my survey are as listed: Deaf Room, All Deaf, Deaf and HoH in support of CI, Deaf Mind Beggars, Deaf and Hard of Hearing, World Deaf Connecto, Deaf Thought Police, Greater Seattle Club of the Deaf, Deaf Pride Music, Deaf Culture Center, Spokane Deaf Community, Deaf XBOX Gamers, and Portland Metro ASL and Deaf Events.

project and the URL link to the survey. Again, participants were asked to self-select themselves into the study.¹²

Data Analysis

Analysis of the survey data occurred subsequently after receiving a large number of responses on Qualtrics. The data was exported from the Qualtrics program to SPSS (Statistical Package for the Social Sciences), a software package designed for statistical analysis. Analyzing procedures used for the data ranged from crosstabs, frequencies, and t-test analysis. These tests were done specifically for determining correlation between variables and assess the strengths of these significant relationships. Specifically, I started analysis by using chi-square tests of independence to determine the likelihood of a relationship between two variables. For relationships that tested significant, I then conducted a Spearman rank correlation coefficient test, or Spearman rho, to test the strength and direction of the relationship.¹³

I compared a variety of variables to each other to uncover possible correlations occurring between demographic information and attitudes. Several variables were recoded for the purpose of having consistent measurements to compare and analyze. In one question, I made the mistake of excluding other forms of sign language when I asked participants to indicate their primary mode of communication. Having only given them the choice of ASL as a sign language, several respondents wrote in that

¹² Due to shortage of time and little (7 surveys) response from students at Gallaudet, their responses were not included in the analysis of the data. As discussed in the future research section, further research into attitudes of Deaf students attending deaf schools may expand our understanding of how these schools serve as places of acculturation into Deaf culture.

¹³ This was contingent on the level of measurement of my variables. Spearman rho can only measure ordinal and scale level of measurements whereas some of my variables were nominal in nature.

they spoke British Sign Language or Sign Exact English. This diversity in sign language is a result of my posting the survey link of Facebook groups used by deaf people worldwide. Because I did not go into the project with an intent to concentrate on American Deaf culture, I did not omit data from respondents who indicated being of international status.

Ethical Considerations

In any research involving human subjects, necessary precaution must be taken into account. The survey that I distributed was of minimal risk and posed no potential psychological harm to the subjects. Participants were informed that the data would remain confidential and would only be used for research purposes. Individuals who were under the age of 18 could not participate in the study and respondents implied consent by through voluntarily participation. Both the description of the survey posted on Facebook and sent in emails and the survey itself consisted of my contact information and the contact information for my research supervisor.

In addition to these precautions taken to ensure minimal risks, both the contentious nature of this debate and my personal attachment to this topic are both reasons for me as a researcher to be wary of any personal biases and pre-conceived notions that I may hold towards cochlear implants and the Deaf community. Therefore, it was important for me to suspend any assumptions regarding the various players in the debate. It was also important for me to recognize that my experience with my cochlear implant is my own and that the quality of other's experiences with the device

can vary. Acknowledging this and the suspension of any biases and pre-conceived notions were necessary measures to take for the completion of an authentic thesis.

Critique of Methods

While I sought to use research instruments that would enable me to obtain a substantial amount of responses, there are still some limitations that presented itself through my chosen methodology. Because the process of recruiting participants depended on voluntary participation, it is likely that those that chose to take the survey already had some interest in the research topic. Individuals indifferent about the debate or wanting to evade the subject were less likely to self-select themselves into the study, therefore my data may not consist of responses from these viewpoints. However, as I discuss earlier, the diversity in the responses leads me to believe that the self-selection did not lead to imprecise data.

The distribution of the survey depended on using social media, specifically Facebook. This excludes Deaf individuals who may not have an active account, either because they do not have access to the Internet or chose to not use Facebook.

A respondent emailed me after participating in the study and pointed out some vagueness in my questioning. When I asked how respondents how often they interacted with their hearing and Deaf friends, I was not careful with my wording and left this respondent confused about whether I had meant face to face interaction or through other forms such as texting or Skyping. While I did make a mistake with my wording, I do not believe that this will undermine my findings.

The last limitation is that my sample mostly consists of individuals who have used a hearing device, either a cochlear implant or a hearing aid, at some point in time in their lives. My sample also does not consist of any prominent racial diversity. These limitations suggest that my findings may not be able to be generalized to the larger Deaf community but I do believe that my findings provide us with substantial information about the Deaf community and the diversity of existing attitudes held in the cochlear implant debate.

Demographic of Survey Respondents

In all, there were 124 participants that started the survey and around 100 participants who completed the survey, resulting in an 80% completion rate. Of the survey respondents, 25% identified as male and 72% as female. The remaining 3% identified of a gender other than male or female. In table 5.1, the reader can see that the majority of the respondents were younger than 55 years old. This breakdown in age is consistent with the age demographics of Facebook users and therefore presents a limitation with my chosen methods.¹⁴

¹⁴ As of January 2014, the Pew Research Center discovered that while around 90 percent of the population under the age of 50 uses Facebook, the number of Facebook users over the age of 50 drops drastically to 65 percent and then to 49 percent after the age of 65 (Duggan et. al. 2015)

Table 5.1 Age Distribution

Age	Percent of Sample
18-24	20%
25-34	30%
35-44	18%
45-54	19%
55-64	10%
65 and over	3%

The majority of the sample, or 77%, identified as White/Caucasian. Only 6% identified as Hispanic and 5% identified as African American. Four percent identified as Mixed Race and both Native American and Pacific Islander had 2% each. Only one participant identified as Asian, equating to 1% percent of the sample. The last 3% were respondents who identified as a race that was not provided as a choice.

Table 5.2 shows the variation in level of education that the survey respondents received. The majority of the respondents received some form of higher education, with 35% having some college education and 30% graduating from a 4-year college. Ten percent of the respondents did not receive any higher education and 13% of the sample went onto to receive a post-grad degree.

Table 5.2 Education Attainment Distribution

Level of Education Achieved	Percent of Sample
Less than High School	2%
High School/GED	8%
Some College	35%
2 Year College Degree	13%
4 Year College Degree	30%
Masters	12%
Doctoral	0%
Professional Degree (JD, MD)	1%

Table 5.3 shows the household income distribution in the sample. More than half (53%) of the respondents have a household income of less than \$40,000. There are two possible explanations for this outcome. The first is that this supports Tucker's (1998) findings that the deaf adult population makes significantly less than their hearing coworkers. However, it is important to keep in mind that the question addresses household income and not individual income. Therefore, it is plausible that some of these responses are combinations of more than one individual income and this table possibly could not support Tucker's research. The second possible explanation for this pattern is that because half of the respondents were under the age of 35, most of them are probably working entry-level jobs and have yet had an opportunity to achieve upward mobility in the work force.

Table 5.3 Household Income Distribution

Household Income	Percent of Sample
Below \$20,000	22%
\$20,000 to \$29,999	21%
\$30,000 to \$39,999	10%
\$40,000 to \$49,999	12%
\$50,000 to \$59,999	6%
\$60,000 to \$69,999	8%
\$70,000 to \$79,999	6%
\$80,000 to \$89,999	4%
\$90,000 or more	11%

Using the labels introduced by Clark (1981), one can assess the degree of hearing loss experienced by the members of the sample. Of the survey respondents, 60% of them have a profound hearing loss. Twenty two percent of the sample have a severe hearing loss and 11% have a moderately severe hearing loss. Only 5% have a moderate hearing loss and 2% have a normal hearing loss. For the purpose of understanding the significance of these labels in decibels, please refer back to table 2.1 on page 7. When asked, 37% of the sample said they lost their hearing before birth and 67% indicated losing their hearing after birth.

Despite the high number of respondents that indicated having profound hearing loss, only 38% of the respondents indicated that they identified as culturally Deaf. Half of the respondents (50%) indicated that they identified as being somewhat culturally Deaf and 12% indicated that they did not identify as Deaf. It is interesting that such a

significant portion of the sample did not see themselves as fully Deaf and fully not-Deaf. This indicates that membership to Deaf community may not be as black and white as some may have understood it to be. This raises the question of whether there is a universal criterion for determining membership to Deaf culture. It is most likely that there is not a consensus on what constitute membership to this culture. This complicates our understanding of membership to this community and serves as a great focus for future research.

Our understanding of why so many participants felt that they are somewhat culturally Deaf could be explained by looking at how many respondents have and currently use hearing devices. Ninety four percent of the sample indicated using hearing devices at some point in the past and 72% indicated that they are currently using hearing devices. This is a clear limitation in my research and because of it, I probably cannot generalize most of my findings to the larger Deaf population.

One can see the implications of the high rate of hearing device usage in the breakdown of primary language. Forty two percent of respondents said that they use a combination of spoken English and American Sign Language. Twenty six percent answered that they mostly communicate in spoken language and 29% communicate only in signed language.¹⁵ It would make sense that due to the high rate of hearing device usage in our sample that there is a high rate of spoken language as a method of communication.

¹⁵ Another brief reminder, this number includes respondents who indicated speaking another form of signed language. Other forms that respondents indicated using was British Sign Language, Signed Exact English, Pidgin Signed English (similar to Signed Exact English), and Norwegian Sign Language.

In regards to deaf education, only 43% of respondents answered that they have been enrolled in a school for the deaf and 57% said that they have not. Many scholars agree that deaf schools are where the socialization into Deaf culture occurs (Holcomb 2012). Since over half of the participants did not attend a deaf school, it is possible that respondents felt that they did not secure full membership to Deaf culture because they received a mainstreamed education. Another pitfall experienced with enrollment into mainstream schools is that respondents are less likely to have established strong networks with other Deaf individuals.

In regards to relatives who experienced hearing loss, a small fraction (16%) of the respondents indicated that they had a parent who was either deaf or hard of hearing. Over a third of them (31%) indicated that they had a relative other than their parents who was either deaf or hard of hearing.

I assess how wide social circles are for the Deaf respondents by inquiring about the number of deaf and hearing friends respondents believed they had. I go further by exploring the depth of these relationships by asking how often they interacted with these peers. Tables 5.4 and 5.5 show how the respondents answered these two questions in regards to Deaf friends.

Table 5.4 Number of Culturally Deaf Friends Distribution

Number of Culturally Deaf Friends	Percent of Sample
0-3	28%
4-10	23%
11-20	11%
21 or more	38%

Table 5.5 Frequency of Interaction with Culturally Deaf Friends

Frequency of Interaction with Culturally Deaf Friends	Percent of Sample
Never	10%
1-2 Times a Month	32%
1-2 Times a Week	20%
3-6 Times a Week	18%
Daily	23%

As the reader can conclude from these two tables, the majority of the respondents either had a small group of less than 10 culturally Deaf friends or a large group of more than 21 Deaf friends. Most respondents (32%) indicated interacting with their culturally Deaf friends more than 1 or 2 times a month and 23% interacting on a daily basis. I ask the same questions again but in regards to hearing people. Tables 5.6 and 5.7 show the distributions found in my sample.

Table 5.6 Number of Hearing Friends

Number of Hearing Friends	Percent of Sample
0-3	9%
4-10	23%
11-20	15%
21 or more	53%

Table 5.7 Frequency of Interaction with Hearing Friends

Frequency of Interaction with Hearing Friends	Percent of Sample
Never	3%
1-2 Times a Month	26%
1-2 Times a Week	26%
3-6 Times a Week	10%
Daily	35%

The majority of respondents indicated having more than 21 hearing friends and only 9% had either 3 or less hearing friends. Table 5.7 continues this pattern by showing that the majority of the sample interacted with their hearing friends on a monthly basis and 35% interacted on a daily basis.

In regards to involvement in culturally Deaf activities, I counted each activity that I listed on the survey as one point. I tallied up the points and broke the sample into four exclusive groups ranging from no involvement to being heavily involved. If respondents indicated having attended more than 6 events in the last year, then they were considered to be very involved in the Deaf community. A score between 4 and 6 was considered “involved” and anything between 1-3 points was labeled as little involvement. If respondents had no points, they were considered not involved. Twenty five percent of the respondents were not involved at all in Deaf culture, 23% somewhat involved, 33% involved, and 19% very involved. It is interesting to note that a small portion of the sample had no involvement whatsoever with Deaf culture in the past year but still attached themselves to the Deaf label.

Chapter 6: Findings

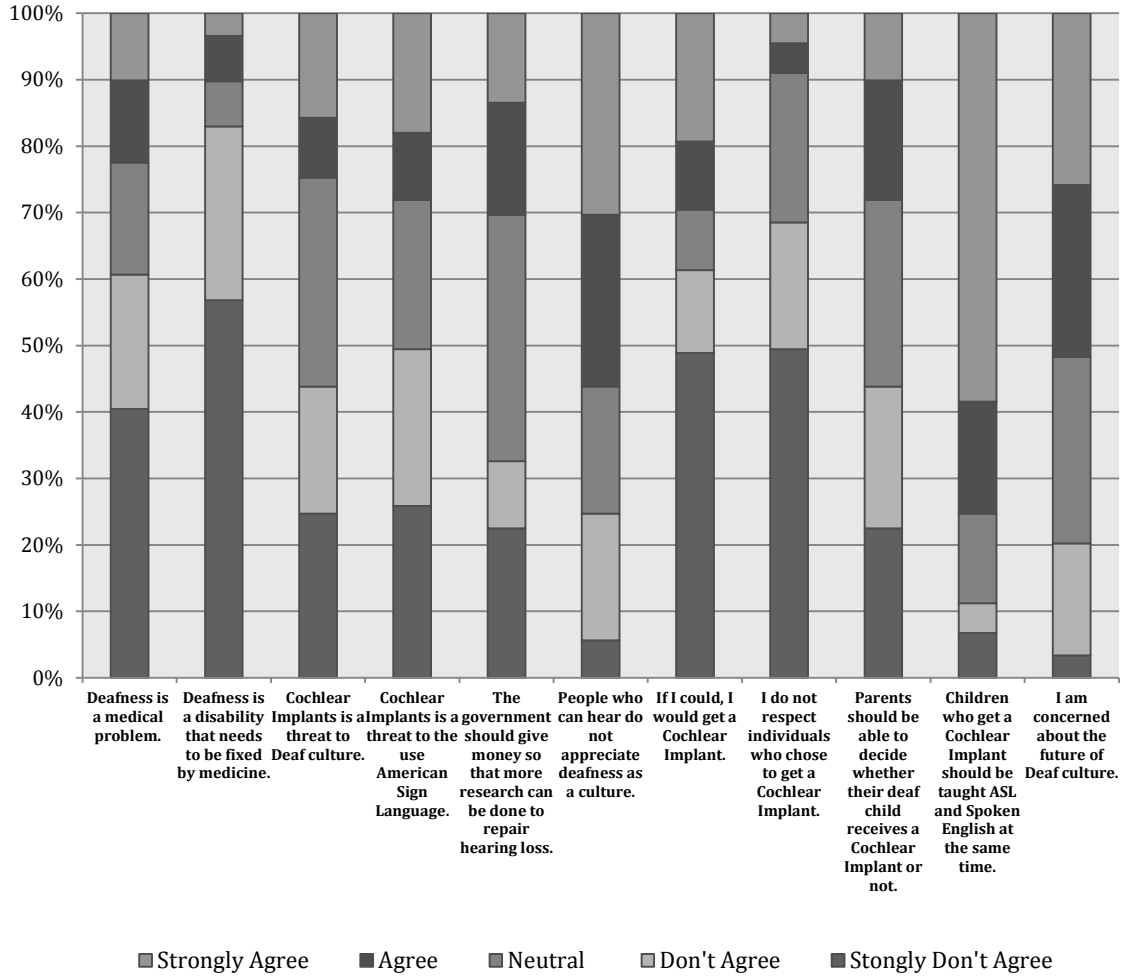
In this chapter, I outline my findings in three sections. The first section will touch on the responses to the attitude prompts found in the Likert scale section of my survey. The second section will compare the demographics and the attitudes of those who are Deaf and those who are not Deaf. I will also compare mean scores obtained from both groups to determine whether the Deaf and the non-Deaf differ significantly with the possession of certain attitudes. This section will hopefully shed light on the characteristics and opinions that are predominately found in members of Deaf culture and which are found mostly in non-members. The last section will directly answer my research question that I have proposed and help us understand if certain demographic information makes respondents more or less likely to possess certain opinions.

Attitudes Held by the Deaf

Deaf and somewhat Deaf respondents were asked to indicate whether they agreed or disagreed with eleven prompted attitude statements discussing a myriad of issues raised in the cochlear implant debate.¹⁶ The breakdown of how the Deaf in my sample responded can be found in graph 6.1. In this bar graph, the x-axis is comprised of the attitude statements used in my survey and the y-axis serves provides percentages.

¹⁶ I omit data from respondents who did not identify as culturally Deaf in this portion of the findings chapter. My justification for doing so is that I wanted to assess how prevalent certain opinions and attitudes were amongst members of Deaf culture. Also, as discussed in my methodology, I have grouped respondents who indicated that they were somewhat culturally Deaf with the Deaf respondents for analysis purposes.

Graph 6.1 Attitude Breakdown of Deaf and Somewhat Deaf Respondents



As seen in this graph, when asked if deafness constituted a medical problem, 60% of the Deaf answered that they either *strongly disagreed* or *disagreed* with the statement. Comparing this to the 22% who *agreed* in some capacity, it is clear that most participants choose to utilize the social model of disability when it comes to conceptualizing deafness. However, the breakdown in the responses to the statement

that deafness is a disability that needs to be fixed by medicine complicates our understanding of how this model of disability is understood by this community. When asked if deafness needed to be fixed through medical intervention, an overwhelming 83% of the sample either *strongly disagreed* or *disagreed*. Approximately 10% answered *in favor* of curing deafness through medicine. These percentages would lead the reader to believe that while the majority of the sample believes that deafness does need to be cured, some participants, despite their opposition towards medical intervention, still believe that deafness is a medical problem. Therefore, it can be suggested that the models of disability can be accepted at different degrees.

The responses in regards to the statements discussing the threats that cochlear implants impose on the future of Deaf culture and the use of ASL reveal that these opinions are not as widespread among Deaf members as some may believe it to be. In respect to the threats that cochlear implants imposes on the Deaf community, 24% of the sample *agreed* in some capacity that cochlear implants are a threat to their culture whereas 43% of the respondents *disagreed* in some degree. With regards to ASL, 28% of the sample *believed* that cochlear implants are a threat to the use of the language and 49% of the sample *disagreed*. The reader can draw from this that there is a number of participants who believed that the implant did serve as a threat towards the use of ASL, but did not threaten Deaf culture itself. This leads us to conclude that for some participants, they perceived the survival of Deaf culture to be not contingent on the use of the signed language.

Respondents were asked to indicate whether they agreed or *disagreed* with the idea of children going ‘bi-bi’. An overwhelming 75% of the sample *agreed* in some

capacity while 10% did not. The solution of having bilingual children is a widely accepted one in this sample, indicating that members do not perceive bilingualism to be compromising to Deaf culture. In fact, one can speculate that for this group, learning both spoken English and ASL is advantageous as it allows for children with cochlear implants to retain their Deaf identity while simultaneously avoid being disadvantaged by hearing culture.

When asked whether they believed that hearing people did not appreciate deafness as a culture, 56% of the sample answered that they *agreed* or *strongly agreed*. Comparing to the 19% who *did not agree* with the statement, it can be understood that there is a shared belief among the sample that the cultural and linguistic implications of the impairment go unacknowledged by the hearing. This finding is consistent with previous research and goes to demonstrate that there is a need for greater transparency for cultural aspects of disabilities in the abled-bodied community.

Opinions regarding the government funding research into hearing loss restoration were mostly neutral. 37% of the sample was *indifferent* when asked whether they believed the government should fund hearing restorative initiatives. Comparing this to the 32% who *did not agree* and the 30% that *did agree*, it is clear that there is not a consensus on this issue. While many of the participants have demonstrated that they believe in the social model of disability, for some of them, government funding is not seen as a perpetration of the medical model and as something that could lead to the end of Deaf culture.

When asked if they would get a cochlear implant if they could, 61% *disagreed* in some capacity and 29% *agreed*. As this prompt assesses whether members of the

sample are content being deaf, it can be concluded that the majority of the sample are satisfied with their impairment as it is.¹⁷ This is consistent with previous research done by Tucker (1998) and Sparrow (2005), demonstrating that pride in being deaf is prevalent in the sample. However, it is important to keep in mind how respondents answered this question is not indicative of whether they would choose to implant their child or not. On the statement suggesting that parents should make the decision to implant their child, 28% *agreed* that parental involvement should occur whereas 43% *did not agree*. Almost a third (29%) of the sample was *neutral* to this statement. It is clear that this ethical concern is not as widespread amongst the Deaf respondents. By doing this comparison, one can begin to see that some opinions on the implant and its surrounding controversies are not as pervasive as some may have assumed it to be. This helps us distinguish which opinions raised are truly representative of the concerns of the community and which may be more rhetorical devices used to challenge the use of the implant.

Despite concerns about the implications of cochlear implants, respondents when asked whether they disrespected individuals who chose to get the implant responded mostly (68%) with *disagreement*. A small group of respondents (9%) *agreed* in some capacity and the rest (22%) were *indifferent* to the statement. It is important to note that almost all of the sample has used a hearing device in the past, thus raising the question of whether respondents, due to their history with the device, mostly disagreed due to the hypocrisy that would stem from their agreement to the statement. This is still pure speculation but is one viable explanation for this pattern.

¹⁷ It is possible that respondents who already are using cochlear implants disagreed to this answer because they didn't see the need to get a cochlear implant again.

Because one of the driving forces behind the resistance of cochlear implants is the perceived threat it has for the Deaf community, I asked respondents to indicate whether they were concerned about the future of their culture. When asked, 50% of the sample indicated that they *agreed* or *strongly agreed* that they were concerned about the future of Deaf culture. Comparing this to the 19% of the respondents who *disagreed* in some capacity, it can be seen that half of the sample believes that there are harmful threats posed against their community and potentially places it at risk for extinction.

Demographic Patterns of Deaf Identity

Because my research question looks at the culturally Deaf, it is necessary for me to use my data to develop an understanding of how my respondents conceptualize membership into Deaf culture. To help with this, I detect dominant demographic characteristics found in the Deaf and the non-Deaf. For this research, I conducted chi square tests of independence to determine the likelihood that a relationship resulting to social processes exists between variables.¹⁸

Most of the relationships that I discovered through statistical analysis are consistent with the findings of previous studies. For instance, my sample proved that culturally Deaf people *are more likely* to communicate through sign language (χ^2 (12)

¹⁸ Chi-square test of independence uses cross-tabulation tables to measure the likelihood of interactions between variables. For this section, I could not use other forms of associational measurements to determine association as most are unable to calculate variables at the nominal level of measurement.

= 21.38, $p < .05$) and to not be using hearing devices ($\chi^2 (2) = 38.26, p < .001$).¹⁹ These findings are consistent with previous literature on this subject and prove that both the use of sign language and the rejection of medical assistance are distinctive values shared within the Deaf community.

In discussing education attainment and cultural identity, I found that those who identified as Deaf in my sample *were more likely* to receive less education than those who did not identify as Deaf ($\chi^2 (12) = 21.38, p < .05$). I also discovered a relationship with enrollment in deaf schools and cultural identity; the Deaf in my sample *were much more likely* to have attended schools for the deaf than those who didn't identify as culturally Deaf ($\chi^2 (2) = 9.73, p < .01$). These two relationships also corroborate previous literature on this population and goes to emphasize that deaf schools are locations of acculturation in which respondents are socialized into Deaf culture. I wanted to see whether there was a relationship between enrollment in schools for the deaf and the number of Deaf friends. After testing the two variables, I found that those who attended deaf schools *were more likely* to have more Deaf friends ($\chi^2 (3) = 10.80, p < .05$).

In regards to household income, I discovered that most Deaf and somewhat Deaf respondents earned lower incomes than those who did not identify as Deaf. However, the p value for this relationship is just above .05. Therefore, this interaction is not significant enough and it cannot be determined whether a statistical relationship exists between income and cultural identity. However, a glance at table 6.2 does

¹⁹ As a brief reminder, I define hearing devices as either cochlear implants or hearing aids.

suggest that income disparity may be occurring in regards to compensating Deaf employees. This could be because the Deaf are less likely to have more education, therefore unable to obtain credentials for higher paying jobs.

Table 6.2 Cross Tabulation Table of Household Income and Cultural Identity

	Below \$20,000	\$20,000 to \$29,999	\$30,000 to \$39,999	\$40,000 to \$49,999	\$50,000 to \$59,999	\$60,000 to \$69,999	\$70,000 to \$79,999	\$80,000 to \$89,999	\$90,000 or more
I identify as culturally Deaf	25.6%	20.5%	10.3%	15.4%	10.3%	7.7%	0%	5.1%	5.1%
I identify as somewhat culturally Deaf	27.7%	27.7%	8.5%	6.4%	6.4%	6.4%	6.4%	2.1%	8.5%
I do not identify as culturally Deaf	0%	7.7%	23.1%	15.4%	0%	15.4%	15.4%	0%	23.1%

In regards to the number of Deaf friends and frequency of interaction with them, I discovered significant relationships proving that the Deaf respondents *were more likely* to have more Deaf friends ($\chi^2 (6) = 43.74, p < .001$) and frequently interact with them ($\chi^2 (8) = 51.499, p < .001$). Contrasting this to interaction with the hearing, a significant relationship reveals itself, indicating that Deaf respondents *were less likely* to interact with hearing people ($\chi^2 (8) = 16.57, p < .05$). Not surprisingly, there is an interaction between their level of involvement in Deaf events and cultural identity; Deaf respondents *were more likely* to be more involved in Deaf culture than those who

did not identify as Deaf ($\chi^2(6) = 44.98, p < .001$). If anything, these findings support our understanding of Deaf culture being a richly connected culture in which its members are active participants of.

Attitudinal Patterns of Deaf Identity

To get a better understanding of what attitudes are found in Deaf communities versus those found in the non-Deaf population, I conducted independent samples *t* tests to compare the means of the Deaf and the non-Deaf in regards to how they responded to the attitude prompts. To do this, I grouped both those that identified as somewhat Deaf with the Deaf respondents. I also conducted chi square test of independence to determine the likelihood of a relationship between cultural identity and the attitudes listed in my survey. My findings can be found below in table 6.3.

Table 6.3 Independent Sample t Test and Chi Square Test of Independence of Cultural Identity and Attitudes

Deafness is a medical problem.	t Test score	4.19***	Government should not give money so more research can be done to repair hearing loss.	t Test score	2.36*	Parents should decide whether their deaf child should receive a cochlear implant or not.	t Test score	3.754** *
	Chi Square score	21.46***		Chi Square score	9.57*		Chi Square score	15.72**
Deafness is a disability that needs to be fixed by medicine	t Test score	3.13**	People who can hear do not appreciate deafness as a culture.	t Test score	-0.277	Children who get a cochlear implant should be taught both ASL and spoken English at the same time.	t Test score	2.76**
	Chi Square score	9.65*		Chi Square score	3.94		Chi Square score	7.38
Cochlear Implants is a threat to Deaf culture	t Test score	2.12*	If I could, I would get a cochlear implant.	t Test score	2.6*	I am concerned about the future of Deaf culture.	t Test score	4.8***
	Chi Square score	8.52		Chi Square score	9.16*		Chi Square score	27.95** *
CIs are a threat to the use of ASL	t Test score	2.45*	I do not respect individuals who choose to get a cochlear implant.	t Test score	2.75**			
	Chi Square score	6.98		Chi Square score	10.11 *			

Key: *p<.05 **p<.01 ***p<.001

For those who identified as culturally Deaf, they *were more likely* to believe that deafness is not a medical problem ($\chi^2 (4) = 21.46, p < .001$). Similarly, those who identify as Deaf *were more likely* to believe that deafness is not a disability that needs to be fixed ($\chi^2 (4) = 9.46, p < .05$). Both of these relationships also consists a significant difference between the means of the Deaf and the non-Deaf.²⁰ These two relationships reiterate both previous research done on Deaf culture and our findings from earlier in this chapter. One can begin to see that the social model of disability is widely accepted by the Deaf respondents. Taking into consideration that the first relationship described is stronger than the second, this echoes the pattern discovered earlier in the breakdown of responses toward the statements in the Likert scale. This supports the conclusion that for some Deaf respondents, deafness is a medical issue but not one that warrants fixing.

In regards to cultural identity, those who identified as culturally Deaf *were more likely* to not respect individuals who received the implant ($\chi^2 (4) = 10.11, p < .01$). The means between these two groups were also significantly different ($t (98) = 2.75, p < .01$). This naturally makes sense because those who do not identify as culturally Deaf are more likely to participate in hearing culture in some capacity. Through these interactions with hearing culture, they probably saw some benefits to having a hearing device. As mentioned before, the majority of the sample has used a hearing device, thus questioning the ability to generalize these findings to the larger Deaf population.

²⁰ In regards to the statement that deafness is a medical problem, the Deaf ($m = 3.68, sd = 1.38$) had a significantly *higher* mean score than the non-Deaf ($m = 4.26, sd = 1.08$). The t test score computed a very high significance level ($t (99) = 4.19, p < .001$). In response to the statement that deafness is a disability that needs to be fixed by medicine, the Deaf ($m = 4.26, sd = 1.08$) had a significantly *higher* mean score than the non-Deaf ($m = 3.17, sd = 1.58$) ($t (98) = 3.13, p < .01$).

Respondents were asked to indicate whether they agreed or disagreed with the statement that parents should decide whether to implant their child or not. Through analysis, I discovered that those who identified as Deaf *were more likely* to believe that parents should not decide for their child ($\chi^2(4) = 15.72, p < .01$). A significant t test score also corroborates this relationship ($t(99) = 3.754, p < .001$). Here, one can see that Deaf respondents feel that the child should make the decision in whether to receive an implant or not. From this, it is clear that the Deaf do not feel that there enough measures being taken by the audiologist or other medical practitioners to educate and inform parents about the Deaf way of life. Therefore, the Deaf do not feel that parents are equipped with the knowledge necessary to make an informed decision and believe they should not make it.

The Deaf were also *more likely* to believe that the government should not fund research into hearing restoration ($\chi^2(4) = 9.57, p < .05$). A significant difference between the means of these two groups also suggests a relationship between cultural identity and the statement in question ($t(99) = 2.36, p < .05$). From these findings, it can be extrapolated that the Deaf respondents are more likely to perceive government funding as a reinforcement of the medical model of disability and has potentially harmful implications for the community.

This relationship is corroborated by looking at the existing significant relationship between cultural identity and expressed concern about the future of Deaf culture ($\chi^2(4) = 27.95, p < .001$). Statistical analysis of this relationship reveals that those who identify as culturally Deaf *were more likely* to be concerned about the future of this community. T test scores also indicate a significant difference between the

means of the two groups ($t(99) = 4.8, p < .001$). Here, it is clear that concern about the future of Deaf culture is mostly confined to the members of the Deaf community.

Models of Disability

The remainder of the findings section is devoted to understanding whether correlations exist between respondents' demographic information and their opinions on the issues raised by the cochlear implant debate. These relationships were tested using chi square tests of independence. If a significant correlation was discovered through the chi square test and if the levels of measurement were interval or ordinal, I used Spearman rho to determine the strength and direction of these relationships.

When constructing the attitude prompts for the Likert scale component of my survey, I made sure to include statements that conveyed the main arguments for both the social model of disability and the medical model of disability. I did this so I could assess whether certain demographic information were more prominently found in those who adopted the social model and in those who adopted the medical model. I conducted chi square tests of independence comparing the variables and the results can be found in table 6.4.

Table 6.4 Chi-Square Test of Independence Results for Models of Disability Attitudes

	Deafness is a medical problem.	Deafness is a disability that needs to be fixed.	If I could, I would get the implant		Deafness is a medical problem.	Deafness is a disability that needs to be fixed.	If I could, I would get the implant
Age	19.00	23.06	22.16	Told to use oral communication	10.90*	2.19	1.15
Gender	11.35	6.69	10.84	Attendance at school for the deaf	3.55	5.11	5.34
Race	20.16	25.62	34.63	Parent's hearing status	2.31	3.21	6.29
Level of Education	39.18**	66.29***	30.14	Relatives' hearing status	14.51	6.73	10.74
Annual household income	32.97	38.85	34.28	Number of Deaf friends	18.78	13.42	14.34
Primary language	10.48	14.73	6.2	Frequency of interaction with Deaf friends	22.9	22.58	16.5
Degree of hearing loss	11.84	14.91	10.03	Number of hearing friends	28.03**	18.5	12.65
Time of deafening	0.83	3.67	4.73	Frequency of interaction with hearing friends	20.26	12.91	16.1
Current use of hearing devices	11.79*	4.81	4.97	Level of Involvement in Deaf culture	10.77	11.67	4.33
Past usage of hearing devices	1.72	1.30	3.2				

Key: *p<.05 **p<.01 ***p<.001

As can be deduced from the table, members of the sample who had received more education *were more likely* to adopt the social model of disability ($\chi^2 (20) = 39.18, p < .01$). I conducted the Spearman rho test to assess the strength and direction of the relationship between education and the “Deafness is a medical problem” statement. Doing this, I discovered that a *weak/moderate negative relationship* exists between these two variables ($\rho (87) = -.292, p < .01$). However, a Spearman rho test for the relationship between education and using medicine to fix deafness did not yield a significant score. With these findings, I conclude that education attainment can be a determining factor in determining the model of disability accepted by a Deaf individual.

In regards to the medical model of disability, I discovered that those who currently use a hearing device *were more likely* to believe that deafness is a medical problem ($\chi^2 (4) = 11.79, p < .05$). Here, it can be observed that those who currently utilize assistance to alleviate hearing loss are more likely to adopt the medical model of disability and likely to condone the medicalization of deafness. This correlation could also be explained by the *weak positive relationship* that exists between the same attitude and the number of hearing friends respondents have ($\rho (87) = .239, p < .05$). The more hearing friends participants have, the *more likely they* are to understand deafness as a medical problem ($\chi^2 (12) = 28.03, p < .01$). Because those who use hearing devices *were more likely* to have more hearing friends ($\chi^2 (3) = 11.7, p < .01$), it is clear that the medical model of disability is prevalent in participants who have access to hearing networks.

However, it is interesting to note that there is not a significant relationship that exists between Deaf individuals who both currently use a hearing device and have higher numbers of hearing friends and the belief that deafness is a disability that needs to be fixed. One can extrapolate that for Deaf respondents who use hearing devices and have more hearing friends, they see deafness as a medical problem but not as a disability that demands rectification. It can be drawn from this finding that while part of the medical model of disability is employed when they see deafness as a disability, respondents deviate from the model when they perceive deafness as something that does not need to be fixed.

Perceptions of the Hearing

Perceptions of the hearing community were another theme that I had participants address in the Likert scale. Through their responses, I discovered a relationship between age and disrespect towards individuals who received an implant. In my sample, older respondents *were more likely* to not respect individuals who had chosen to receive the implant ($\chi^2 (20) = 31.21, p < .05$). This is interesting and raises questions of how age may influence perceptions of individuals who receive the implant. A potential explanation for this relationship is that older respondents may be more likely to disrespect individuals their age who receive the implant because this choice could be interpreted as an abandonment of Deaf culture.

Contrasting disrespect for individuals with cochlear implants and primary language usage, one can see that those who communicate primarily by using signed language *were more likely* to not respect those who chose to get a CI ($\chi^2 (8) = 15.08, p <$

.05). This makes sense considering that culturally Deaf people are more likely to use sign language and more likely to disrespect CI users.

Respondents were asked to indicate the degree of hearing loss that they were diagnosed with. In comparing these answers with the sentiment that they did not respect people who received cochlear implants, I found that people with greater hearing loss *were more likely* to disagree that they did not respect individuals who received the implant ($\chi^2 (16) = 27.53, p < .05$). This relationship was surprising and seemed contradictory to the relationship I discovered between cultural identity and lack of respect towards CI users. However, I looked at the relationship between current usage of hearing devices and negative perceptions of people who chose to get cochlear implants and found a significant interaction in which those who have hearing devices *were more likely* to disagree that they do not respect people who choose to get the implant ($\chi^2 (4) = 14.16, p < .01$). Given that this relationship exists, one can assume that because these devices are designed for people with severe to profound hearing loss and because the majority of the sample used hearing devices in the past, respondents diagnosed with severe to profound hearing loss are most likely to be currently using a hearing device. Therefore, they would be less inclined to disrespect others who had chosen to receive the implant, as they are recipients themselves.

While I asked respondents to indicate how often they interacted with their Deaf peers, I also inquired about the frequency of interaction with their hearing peers. I discovered that those who often interacted with their hearing friends *were less likely* to not respect individuals who had received the implant ($\chi^2 (16) = 32.09, p < .01$). To further test this relationship, I conducted a Spearman rho correlation coefficient test on

the relationship and discovered a *moderate negative correlation* ($\rho (87) = -.315$, $p < .05$). A moderate relationship exists between these two variables, which causes us to speculate that respondents with more hearing friends are more likely to adopt the medical model of disability. Another possible explanation is that because those with more hearing friends are more likely to be currently using hearing devices, thus making them less likely to disrespect others with hearing devices due to their own usage of these hearing devices.

Ethics of Cochlear Implants

Several opponents of cochlear implants have raised some ethical concerns regarding the use of the device. For my research, I wanted to see whether any relationships existed between these ethical concerns and respondents demographic information. My findings can be found in table 6.5.

Table 6.5 Chi-Square Test of Independence Results for Cochlear Implant Ethical Concerns

	Parents should decide whether their deaf child should receive a cochlear implant or not.	I do not respect individuals who choose to get a cochlear implant.	Government should give money so more research can be done to repair hearing loss.		Parents should decide whether their deaf child should receive a cochlear implant or not.	I do not respect individuals who choose to get a cochlear implant.	Government should give money so more research can be done to repair hearing loss.
Age	34.3*	31.21*	18.42	Told to use oral communication	9.1	4.86	4.49
Gender	4.36	2.733	6.97	Attendance at school for the deaf	2.99	2.44	.261
Race	28.52	42.73*	32.89	Parent's hearing status	.571	7.81	2.95
Level of Education	26.8	27.91	29.17	Relatives' hearing status	5.8	5.06	4.08
Annual household income	33.73	29.3	30.8	Number of Deaf friends	7.02	11.36	12.47
Primary language	7.06	15.8*	8.63	Frequency of interaction with Deaf friends	14.41	16.89	24.25
Degree of hearing loss	19.11	27.54*	10.05	Number of hearing friends	11.21	12.38	25.65
Time of deafening	10.26*	6.6	1.59	Frequency of interaction with hearing friends	22.6	32.1**	22.06
Current use of hearing devices	7.69	14.16**	8.33	Level of Involvement in Deaf culture	25.78*	6.47	18.96
Past usage of hearing devices	1.55	3.19	5.47				

Key: *p<.05 **p<.01 ***p<.00

Deafness can impair somebody either before or after they are born. In assessing whether time of deafening correlated with the belief that parents should decide for their child, I found that a significant relationship existed in which those diagnosed with pre-natal deafness *were more likely* to believe that parents should decide for their child ($\chi^2(4) = 10.26, p < .05$). This correlation was interesting and raises questions of how time of deafening influences the various opinions held in the cochlear implant debate.

One can also see that the more involved respondents are in Deaf culture, the *more likely* they are to believe that parents should not decide whether to implant their child or not ($\chi^2(12) = 25.78, p < .05$). This reiterates my other finding that those identifying as culturally Deaf are more likely to believe parents should not decide for their child. It can be extrapolated through these numbers that individuals who interact frequently with the Deaf are susceptible to adopting the same attitude.

Participants were asked to indicate how frequently they interacted with their hearing peers. A relationship between this variable and how they perceived individuals who received the implant was revealed, indicating that respondents with more frequent interactions with the hearing *were less likely* to not respect individuals who had received the implant ($\chi^2(16) = 32.1, p < .01$). To test the strength of this relationship, a Spearman rho correlation coefficient was calculated and produced a *moderate negative correlation* score ($\rho(87) = -.315, p < .05$). It is clear from this that frequent interaction with hearing peers influences respondents to be less likely to disparage those who received the implant.

These relationships don't provide any new information in regards to our understanding of Deaf culture but do reiterate various dominant opinions held by the

culturally Deaf. If anything, these numbers show that these opinions are widely held by the Deaf and are not just empty rhetorical arguments used to undermine the use of cochlear implants.

Language Acquisition

Leaders of the Deaf community have advocated for the promotion of bilingualism in children with cochlear implants. One can see that this sentiment is the same for participants who have high numbers of culturally Deaf friends and frequently interact with these Deaf peers. While no significant relationship existed between cultural identity and the promotion of bilingualism, those who have more friends identifying as culturally Deaf *were more likely* to believe that children should be bilingual ($\chi^2 (12) = 22.85, p < .05$). To further test this relationship, I used a Spearman rho correction coefficient test and received results indicating a *moderate significant relationship* ($\rho (87) = .371, p < .001$). This moderate relationship indicates that having higher numbers of Deaf friends positively correlated with the sentiment that children should go “bi-b”.

Similarly to the last relationship discovered, I found that higher frequency of interaction with the Deaf also led to respondents being *more likely* to believe that children should be bilingual ($\chi^2 (16) = 26.25, p < .05$). Apparent through these two relationships, the number of and interaction with Deaf friends influences respondents to more likely to advocate for bilingualism in children with cochlear implants.

I also looked to see whether primary language also determined how participants responded to the “bi-bi” solution. I discovered that, as can be assumed, those who

speaking both ASL and spoken English *were more likely* to believe that children with cochlear implants should be bilingual ($\chi^2(8) = 23.81, p < .01$). It is clear here that bilingual respondents themselves probably recognized the advantages of being fluent in both languages and believed that these advantages did not undermine one's cultural identity.

Concern about Future of Deaf Culture

At the heart of the argument revolving around cochlear implants is the potential threat it poses for the future of the Deaf community. In analyzing the attitudes of the participants towards the future of Deaf culture, I found that participants who demonstrated having frequent interaction with culturally Deaf people *were more likely* to be concerned about the future of Deaf culture ($\chi^2(16) = 26.22, p < .05$). This relationship is corroborated by looking again at the existing significant correlation between cultural identity and expressed concern about the future of Deaf culture ($\chi^2(4) = 27.95, p < .001$). I draw from these relationships that concern about the future of the Deaf culture is common in those who identify as Deaf and frequent interaction with these people enables others to share the same concern.

Interestingly enough, I discovered a relationship between household income and concern about the future of Deaf culture ($\chi^2(32) = 62.40, p < .01$). Individuals with lower household income *were more likely* to be worried than those with higher household income. I tested this relationship using the Spearman rho correlation test and discovered that a *negative weak* but existing relationship existed between these two variables ($\rho(81) = -.262, p < .05$). There are a couple of explanations that can account

for this relationship. One that comes to mind is Tucker's (1998) research on the Deaf population, which revealed that they were more likely to have lower incomes.

Therefore, it could be assumed that because the culturally Deaf are more likely to have lower household incomes, this relationship is a manifestation of the relationship between cultural identity and concern about the future of Deaf culture. However, it is important to note that there are still a significant number of Deaf people who have moderate to high household incomes. Therefore, one cannot completely accept the explanation that I have provided as the rationale for this relationship.

I compared and contrasted other attitudes to the concern of Deaf culture. My reasoning for doing this was to see whether those who worried about the future of Deaf culture also shared other similar shared opinions. As a result of this comparison, I found that respondents who expressed concern about the future of Deaf culture *were more likely* to believe the cochlear implants were a threat to American Sign Language ($\chi^2(16) = 36.78, p < .01$). While a relationship between these two variables passes the significance test, the relationship between the concern about the future of Deaf culture and the belief that cochlear implants is a threat to Deaf culture was not significant. This echoes my previous findings described in the attitudes section and reinforces the idea that respondents believe that the culture could survive despite threats posed against American Sign Language.

Because of the relationship between concern over the future of Deaf culture and the opinion that the implant was a threat to the use of ASL, it comes as no surprise that there is a relationship between concern over the future of Deaf culture and the sentiment that hearing people do not appreciate deafness as a culture. For those who

are concerned about the future of Deaf culture, they *were more likely* to believe that hearing people do not appreciate deafness as a culture ($\chi^2 (16) = 26.54, p < .01$).

To conclude this chapter, most relationships uncovered support previous research. However, several disclosed relationships shed light on how certain opinions are produced and transmitted to others. To explain the larger implications of these relationships, a synthesis of literature, theory, and findings is necessary. In doing this, the reader is able to obtain a holistic view of what is occurring within Deaf culture.

Chapter 7: Discussion of Results

Through this study, I was able to shed light on potential relationships between demographic variables and opinions held in regards to the cochlear implant debate. In this chapter, I will answer the research question I posed at the beginning of this paper and discuss the implications of these findings. I also provide several recommendations that if implemented, may help resolve some existing problems discussed in this research. By applying the theoretical foundations that I elaborated on at the beginning of this thesis, I will concentrate on membership to Deaf subculture as well as the acquisition of Deaf cultural and social capital and the larger implications that this accumulation of capital has for the perceptions of the cochlear implant debate and of the future of Deaf culture.

Membership to Deaf Subculture

Before touching on my research question, it is essential to discuss how membership to Deaf culture is determined. This question is necessary to address as it enables us to obtain a holistic understanding of how Deaf subculture is constructed. As seen in my findings, there are several distinctive demographic and attitude patterns found through comparing Deaf and non-Deaf respondents. Many of these patterns reiterate previous studies on Deaf culture: the use of ASL over spoken English, the rejection of using hearing devices, and the role of deaf schools in establishing relationships with other Deaf individuals (Holcomb 2012; Sparrow 2005).

Our understanding of what values are central to Deaf subculture is enlightened when comparing culturally Deaf attitude to non-Deaf attitudes. Extrapolating from table 6.3, acceptance of the social model of disability is rife within the Deaf community. Seeing that this is not the case for the non-Deaf population, I propose that accepted models of disability serves as a criteria marker for determining whether one is culturally Deaf or not.

What complicates this argument is that some Deaf respondents had indicated that they believed deafness was a medical problem but not one that needed to be fixed. One can begin to see that there are members of Deaf culture who internalize some aspects of the medical model of disability but not the whole ideology. Conrad (1992) alludes to the various degrees of medicalization in his research, proposing that some conditions can be fully, partly, or minimally medicalized. This differentiation in how one defines disability has resulted in an internalizing of different degrees of medicalization. Respondents in my sample demonstrate this when they suggest that deafness is a medical problem but do not feel that it is a severe enough problem to warrant fixing. A glance at their cultural identity reveals that most of them identified themselves as somewhat culturally Deaf. This fact allows us to extrapolate that acceptance of a fully medicalized definition of deafness prohibits one from being able to completely identify as Deaf. However, an acceptance of a conceptual medicalized definition of deafness is tolerated in one's attachment to the Deaf community.

An existing difference of opinion is evident looking at respondents' opinions on parent's choice of implanting their deaf child. Most Deaf respondents indicated that parents should not make the decision whereas the non-Deaf respondents believed that

parents should. Because of this visible pattern, one can conceptualize these opinions as another criteria marker for Deaf cultural status. Members of the Deaf community have expressed concerns that parents, specifically hearing parents, lack the awareness and appreciation of Deaf culture and do not consider it as a potential alternative to getting the cochlear implant (Sparrow 2005; Tucker 1998). Members of the Deaf community have suggested implementing a Deaf voice in the decision process; doing so would give parents insight into what life is like as a member of Deaf culture. If this was understood through the lens of Bourdieu, the Deaf want to show parents that Deaf capital is just as legitimate as hearing capital, if not more vibrant and richer. Hearing parents, because they are unable to recognize the value of Deaf capital and because hearing capital consists of the medical model of disability, will more likely choose to implant their deaf child over letting their child grow Deaf. This continues to perpetrate the marginalization of Deaf culture as well as reproduce the medical model of disability, passing it down to the recipient of the implant

The last point to be made is that membership to Deaf culture, as my data shows, is a subjective process and is not as black and white as some, like subcultural theorist J. Williams (2011), may believe it to be. The fact that the preponderance of my sample identified as somewhat culturally Deaf is indicative that membership falls on a spectrum and is subjectively decided by each individual. If anything, this finding reiterates Cohen's (1955) suggestion that membership is decided by how consistent our own behaviors are with those who are members of the subculture. As seen in the findings, the acquisition of both Deaf and hearing capital lead respondents to identify themselves as somewhat culturally Deaf.

Models of Disabilities

As suggested by my findings, the social model and medical model are both manifestations of cultural capital and are subjected to transmission through social networks, or social capital. The findings reiterate scholars' understanding of how significant the social model is for the culturally Deaf. This is seen in the relationships between cultural identity and the two attitude statements suggesting the medicalization of deafness.

When asked about the medicalization of deafness, those currently using hearing devices were more likely to support the medical model of disability. Knowing that those who currently use hearing devices are more likely to have more hearing friends and to frequently interact with these friends, it becomes clear that the medical model is conveyed through hearing networks as a manifestation of hearing capital. Here, one can see the role that hearing capital plays in conditioning acquirers to internalize the medical model. However, it is important to note that it cannot deduce when the medical model was first passed down on these respondents. It is possible that it was their parents who passed down the medical model by choosing to have them use hearing devices. Or it could have been a result of the frequent interaction with hearing networks in which respondents were exposed to the medical model. Regardless, it is clear that the medical model is reproduced through hearing capital and perpetuates the mentality that deafness is a disability that needs to be fixed.

Academic institutions have been regarded by sociologists, including Bourdieu (1986), as sites where accumulation of both social and cultural capital occurs. My interpretation of the social model being a manifestation of cultural capital is supported

by the evident relationships between levels of education and the perceptions of deafness as a disability. The more education respondents received, the more cultural capital accumulated, which therefore leads them to a greater acceptance of the social model. This demonstrates the importance that education plays in challenging students to perceive various social conditions through different critical lenses. Respondents who were not inculcated to appreciate their deafness as an impairment rather than a disabling force spent less time in the classroom and are more likely to believe that their impairment needs to be rectified. This indicates that a shortage of cultural capital can result in respondents gravitating towards the medical model. It is worth noting that no significant relationship was found between attendance to Deaf schools and the medical model attitudes, therefore suggesting that it may not be Deaf cultural capital that is being accumulated at these schools. This is promising information as it implies that the adoption of the social model is not limited to schools for the deaf. Whether hearing students adopt this model as well is another research question that may help scholars determine how models of disabilities are internalized.

Role of Language

Bourdieu (1986) posits that linguistic capital serves as a manifestation of embodied cultural capital and also serves as a channel for the exchanging of capital. Literature on Deaf culture has consistently conveyed the importance of ASL for the Deaf community. The valuing of ASL serves as a manifestation of embodied cultural capital and helps define the boundaries to Deaf subculture. Interestingly enough, my findings show that the existence of Deaf culture may not be entirely contingent on the

use of ASL. A small number of respondents answered that cochlear implants posed a threat against the use of ASL while an even smaller number believed that cochlear implants posed a threat against Deaf culture itself. Because the reader understands linguistic capital to be one of many manifestations of cultural capital, it is possible that for several respondents, Deaf culture would still continue to thrive through the reproduction of other forms of cultural capital other than language. Perhaps the move towards bilingualism is seen by several respondents as a new method of reproducing Deaf cultural capital. If the use of ASL would to cease, many of the Deaf respondents would be able to fall back on spoken English but still maintain their cultural identity. It is through this that one can understand why some respondents felt that the future of the culture is not contingent on the usage of ASL.

Observable in my data is the prevalence of bilingual speakers, fluent in both spoken English and ASL. The practice of bilingualism enables respondents to hold positions within both hearing culture and Deaf subculture. The ability to transverse these cultural boundaries grant these respondents access to both hearing and Deaf capital. As one can see in the data, bilingual respondents recognize the advantages of this and thus are more likely to encourage deaf children with cochlear implants to achieve fluency in both languages. Since the majority of bilingual respondents (50%) indicated being somewhat culturally Deaf, one can see that bilingualism can come at a cost; bilingual speakers may not perceive themselves as fully Deaf but also not fully non-Deaf. This finding continues to blur the line between Deaf culture and hearing culture, again suggesting that membership is not restricted to the insider/outsider dichotomy as understood by Williams (2012).

As theorized by Bourdieu and other linguistic scholars, language is used as a vehicle to both accumulate social capital and transfer cultural capital. The findings corroborate this paradigm and allows for us to conceptualize how this accumulation of capital manifests itself in Deaf culture. The strict usage of sign language resulted in respondents being more likely to disrespect individuals who have chosen to get the implant, suggesting that this disrespect is a manifestation of cultural capital exchanged through the use of American Sign Language.

Risk of Losing Capital

Membership to a subculture is associated with an accumulation of both social and cultural capital. As evident in my research, members of a subculture express considerable concern over their accumulated capital when the future of the subculture is at question. It is important to note that while individuals may be able to lose their social and economic capital because both take on tangible forms, cultural capital cannot be lost but can be rendered invaluable. This is due to cultural capital manifesting itself in cultural tastes and attitudes, both intangible and imprinted on one's sub consciousness. When cultural capital loses value, it occurs when there is no other party to indulge with this capital. An example of this is relocation; cultural capital obtained on the east coast may carry no intrinsic value on the west coast due to regional cultural differences. When concerning the Deaf, a disintegrating culture means entering dominant hearing culture with no cultural capital necessary to successfully assimilate. Therefore, Deaf individual may find themselves at risk of being placed at a lower social position in relation to cochlear implant users who have accumulated

hearing capital. The relationship between cultural identity and concern over the future of Deaf culture asserts that respondents recognize this potential risk.

For Deaf respondents in the research, there was recognition that Deaf networks could dissolve if Deaf culture ceased to exist. As interaction with the Deaf is contingent on having both Deaf social and Deaf cultural capital, respondents who had accumulated these forms of capital expressed greater concern about the future of Deaf culture. This is understandable considering it is human nature to not want to lose what one has obtained. However, when one considers that those with lower household income expressed greater concern about the future of Deaf culture than those with higher household income, it is clear that economic capital is a factor in how the Deaf perceive the future of their culture. This pattern can be understood by recognizing that economic capital is likely to share the same value for the dominant culture as it does for the subculture. Due to this cross-cultural interpretation of economic capital, Deaf people having a larger wealth of economic capital are objectively better off than those with less economic capital. Therefore, if their cultural capital was rendered invaluable and their social capital dissipated, Deaf individuals with more economic capital will have more to fall back on whereas those with less economical capital have more to lose; if this were to occur, they would experience a shortage of all three forms of capital.

Implications for the Future

One of the driving forces for resistance against cochlear implants is the implication that the device has for the future of Deaf culture. Because my survey did not use any measures to assess whether Deaf culture was truly experiencing ethnocide, I cannot make any claims in regards to the validity of the claim. However, my findings assert that concern towards the future of Deaf culture is a genuine worry experienced by its members. This expression of unease is indicative of their attachment to the subculture and to their acquired Deaf capital.

The prospect of Deaf culture coming to an end raises the question about the survivability of subcultures in the long run. Subcultural theorists understand subcultures to be a long-lasting phenomenon; it is the members who are the ones who are moving in and out (Haeffler 2014). No theorists that I've encountered in this research project describe the circumstances that would lead to the end of a subculture. Clark et. al. (1975) posits that subcultures cannot die; their subordinate structures are imprinted onto society and within these structures, culture, relationships, and values remain. This is a hopeful interpretation; the emergence of Deaf culture has created cultural and social capital that will continue to be reproduced from generation to generation despite external pressures. However, the number of deaf schools, which has served as breeding grounds for Deaf culture, has been reported to be on the decline. In 2002, only 27 percent of deaf and hard of hearing children were enrolled in "special schools"; this is a significant drop from 85 percent in 1950 (Gallaudet Research Institute 2003). More deaf students nowadays are being mainstreamed, or enrolled in hearing schools. Holcomb (2013) theorizes that because more and more deaf children

are being socialized within hearing society, there will come a time where there will no longer be a need for a Deaf culture. Whether Deaf values and traditions will find a way to be passed down is a question that remains unanswered. While Clark et. al. suggest that these cultural structures will remain, research shows that more deaf children are being assimilated into hearing society. This conflict of information leaves the future of Deaf culture up in the air.

Recommendations

The recommendations that I make stem from an interest to minimize friction between Deaf and hearing culture. Alleviating the disharmonies between the two groups allows for improved inclusion and erases the oppressive norms that marginalize the Deaf community. In order to do this, there is a need for widespread awareness of the social model of disability. This is necessary for the able-bodied community because they will be able to learn how the medicalization of deafness and any other form of impairment can be construed as problematic. The able-bodied community needs to recognize alternative conceptions of disabilities and challenge the conventional definitions that have been posited by the medical community. A proliferation in discourse revolving around disabilities is necessary for this to occur. Institutions that provide spaces for this form of discourse, such as academic institutions, need to encourage members to participate in these discussions. The more people involved in these kinds of conversations, the more people the social model of disability can be understood and appreciated by.

Also equally problematic is the lack of awareness that hearing parents have about Deaf culture when they are making their decision to implant their deaf child. As discussed by previous authors, the Deaf express concern about the parents' ignorance of the cultural aspects of their child's hearing loss. Some of them, like the Deaf respondents in my survey, also believe that the parent should not be the one making the decision. While this is tricky and may not be feasible to address, implementing a Deaf voice in the decision process may help alleviate ethical concerns about implanting deaf children. Medical communities need to acknowledge the existence of the social model and grant spaces for social model advocates to share their perspectives and to inform others about potential alternative lifestyles that one can live instead of subjecting themselves to medicalization.

Lastly, in order to address concerns about the future of Deaf culture, there is need for the official recognition of the Deaf as a cultural minority and for the implementation of policies that ensures the sustainability of this community in the future. In doing this, we encourage collaboration between Deaf culture and hearing culture and, as a result, lessen the antagonism experienced by the members of these cultures.

As it stands, there is a lack of appreciation of the cultural aspects of deafness evident in hearing society. If this were to continue, we run the risk of jeopardizing the existence of this community. Whether the Deaf will become an extinct population is yet to be determined but changes need to be made with haste. Continued ignorance on this population cannot persist any longer; every generation that passes is a generation

that reproduces the medical model and sees the perpetration of the oppression of this cultural linguistic minority group.

Chapter 8: Conclusion

My research attempted to shed light on potential relationships existing between demographic information of Deaf individuals and their perceptions of issues raised by the cochlear implant debate. After conducting analysis of the data, I discovered several relationships, many of them supporting previous research. However, a few challenged our understanding of how various opinions are adopted and reproduced. Through the use of the theoretical frameworks of subcultures, the different forms of capital, and the social model of disability, I explain that many of the newly founded relationships in my data set are manifestation of the accumulation and transmission of cultural and social capital and may serve as markers for subcultural membership.

Sociological Significance of the Cochlear Implant Debate

The cochlear implant debate represents the complicated interaction between differing definitions of impairments. By applying Haefer's definition of subcultures to the Deaf, one can see how the combined effect of marginalization by the hearing and pride in the use of ASL led to the creation of this rich vibrant culture. Within this subculture is the uniformed appreciation of ASL as a legitimate language and deafness as a cultural trait. Subculture theory helps us understand how Deaf culture behaves in the face of hegemonic medicalization imposed by dominant culture. Resistance to assimilation becomes a subcultural practice and is indicative of pride in being Deaf. It is apparent that membership to Deaf culture deviates from the insider/outsider

dichotomy as suggested by William, thus complicating one's understanding of how culturally Deaf status is determined.

This convoluted nature of membership to Deaf culture is best understood with the application of Bourdieu's capital theory. Social and cultural capital allows for the socialization of the profoundly deaf into Deaf culture. Such locations of capital accumulation are Deaf schools and community events. Accumulation of the dominant cultural and social capital, or hearing capital, also plays a determining role in deciding membership to Deaf culture. Those who have acquired hearing capital put at risk their ability to proclaim a complete Deaf identity.

Capital theory can also be used to understand the reproduction and transmission of values and norms. American Sign Language, being a manifestation of embodied cultural capital, serves as a bridge that allows for the exchanging of cultural capital between the Deaf. Other manifestations of Deaf cultural capital are the understanding that parents should not decide to implant their deaf child, the social model of disability, and concern towards the future of Deaf culture. The reproduction and transmission of these values occur through Deaf linguistic capital, or ASL. Inability to communicate in ASL prevents individuals from accessing Deaf capital, thus steering them towards the accumulation of hearing capital.

The social model of disability can be understood as a manifestation of embodied cultural capital. Accumulated through Deaf networks, the social model allows for us to understand the motivation behind the resistance of cochlear implants. Due to its pervasive nature within Deaf culture, we can see how the social model serves as a criterion for membership to Deaf culture.

Overall, the theoretical frameworks demonstrate the sociological significance of the cochlear implant debate. Using these theories, I am able to provide a multi-paradigm approach to understanding Deaf culture and the cochlear implant debate. In turn, application of these theories to this topic allows for one to see the interplay of these theories with each other; this interaction between these three theories gives us a greater appreciation for the role that each theory plays in the construction and defining of communities such as the one analyzed in this thesis.

Implications of the Cochlear Implant Debate

The debate over the promotion of cochlear implant speaks to the larger phenomenon of medicalization of deafness. Unfortunately, the oppression induced by medicalization is not just limited to the Deaf; other minority populations have been subjected to having their unique characteristics labeled by the medical community as defective. *The Spirit Catches You and You Fall Down* by Anne Fadiman captures the Hmong and medical communities in their struggle to come to a consensus about treating epilepsy and eventually leads to the death of the young patient (1997). While deafness does not pose life-threatening risks to the body, Fadiman communicates the detrimental effects that these cultural conflicts can have on the members of subordinate cultures.

It is through stories like the experience of the Deaf community and the one Fadimen tells in which we see that the medical model of disability has pervaded the medical community, and through this, the able-bodied community. This phenomenon of medicalization threatens to oppress communities that have chosen to accept

alternative definitions for their impairments. But for the Deaf culture, it doesn't stop there. Continuing the medicalization of deafness means the continued push for deaf children to be assimilated in hearing society. If this is to persist, we run the risk of committing ethnocide against the Deaf. As my findings show, this is a genuine fear amongst the members of the Deaf community.

Suggestions for Further Research

While my research sheds light on potential relationships that exist between demographic variables and possessed opinions, limitations such as the lack of racial diversity in my sample and overwhelming use of hearing devices render my data unable to be generalized to the larger Deaf community. Due to time constraints, I was unable to continue to find other avenues in which to distribute my survey and to be able to recruit a larger number of participants from Gallaudet University. With more time, I could have taken other measures to obtain a more diverse sample.

While the majority of my sample had received some form of college education, only half of them received any kind of education from a school for the deaf. Research targeting Deaf students enrolled at a deaf school would enable researchers to have a sample richly involved in Deaf culture. Deaf students at these schools may be more likely to be on equal footing when it comes to capital consumption. This equal footing may prove advantageous when it comes to trying to seek a better understanding of how one's demographics may influence their attitudes towards the issues in the cochlear implant debate. This was my objective in trying to obtain responses from students enrolled in Gallaudet and NTID at RIT. Unfortunately, due to time constraints and little

response, I was unable to include data obtained through Gallaudet into my research. Scholars with time on hand to navigate the bureaucratic process of IRBs at other academic institutions may be able shed light on perceptions that Deaf students enrolled in deaf schools have.

Because my research project was quantitative in nature, I was not able to have participants share personal insights or perspectives on the debate. This prevents my thesis from having a holistic understanding of how these attitudes are transferred and adopted by other Deaf individuals. The inclusion of personal narratives and opinions would help contribute a qualitative understanding of how certain demographic variables such as income or education contribute to the attitudes held in regards to the cochlear implant debate. In order for a qualitative study, such as interviews, to be conducted, one would need to navigate the language barrier in place due to the use of sign language. As mentioned in my methodology section, lack of familiarity with ASL prohibited me from conducting interviews.

A study of individuals who transitioned from culturally Deaf to orally deaf through cochlear implantation would enlighten our understanding of what factors influences Deaf individuals to make the switch despite the risk of potentially losing social and cultural capital obtained through their membership to Deaf culture. Additionally, further studies can be done on subcultures within Deaf culture. Through comparing race-minority Deaf groups to LGBTQ Deaf groups, researchers can glean on which opinions on the cochlear implant debate are more prominent in certain groups. An example would be to see whether Deaf LGBTQ are more likely to have stronger opinions on the medicalization of deafness due to homosexuality being one of

the panoply of conditions subjected to medicalization in the past. Such comparisons would expand on my research and be able to address my research question with a more sub-culturally diverse sample.

In addition to understanding how subcultures within Deaf culture differ in ideologies, a study comparing attitudes of Deaf cultures from around the world would demonstrate differences in how the cochlear implant debate is interpreted in different regions. For instance, some countries may demonstrate more sensitivity towards the social model of disability and do not promote the medicalization of deafness as much as other countries may. Understanding these regional differences may allow scholars to provide tangible recommendations on how to minimize existing tensions between hearing and Deaf culture.

Overall, much more research should be done in order better understand the construction and existence of Deaf culture. However, before this can happen, there is a need for greater incorporation of research on disabilities into mainstream academia. As mentioned in the introduction, one of my rationales for writing on this subject is to address the lack of discourse on our campus on ableism and social aspects of disabilities. Lipson and Rodgers state that this lack of discourse is problematic, arguing that disabilities are, “both a legitimate and a critical component of any discussion of diversity.” (2000:212). Because of this, there is a great need for more conversations addressing issues like the one discussed in this thesis. A greater awareness of how disabled bodies can be marginalized may enable the able-bodied population to recognize how their social institutions continue to perpetrate the disabling of individuals with impairments. Hopefully, this realization will be the catalyst for

implementation of changes that will make society more inclusive and accommodating for people with impairments.

What we see happening with Deaf culture is uncharted territories for the field of sociology. How do members of a subculture cope with impending doom for their culture? How do they try to prevent ethnocide? With more resistance? Or by compromising their values in order to? What happens to cultural and social capital if the subculture in which it belongs to vanishes? These questions go unanswered. Through further studies of Deaf culture and the possible ethnocide, one can gain insight into how culture and the members within cope with the dangers of extinction.

References

- American Academy of Otolaryngology-Head and Neck Surgery. 2014. "Cochlear Implants." Retrieved March 15, 2015 (<http://www.entnet.org/content/cochlearimplants>).
- Anastasiou, Dimitris and James Kauffman. 2013. "The Social Model of Disability: Dichotomy between Impairment and Disability." *Journal of Medicine and Philosophy* 38:441-459.
- Baertschi, Bernard. 2013. "Hearing the Implant Debate: Therapy or Cultural Alienation?" *Journal International de Bioethique* 24:71-8.
- Barnes, Colin. 1991. *Disabled People in Britain and Discrimination*. London: Hurst and Co.
- Bourdieu, Pierre. 1986. "The Forms of Capital" Pp. 81-91 in *Cultural Theory: An Anthology*, edited by I. Szeman and T. Kaposy. Malden, MA: Blackwell Publishing.
- Bourdieu, Pierre. 1991. *Language and Symbolic Power*. Great Britain: Polity Press.
- Blume, Stuart. 1999. "Histories of Cochlear Implantation" *Social Science & Medicine* 49(9):1257-1268.
- Brake, Mike. 1985. *Comparative Youth Culture: The Sociology of Youth Cultures and Youth Subcultures in America, Britain, and Canada*. New York: Routledge.
- Burke, Mary. 2011. "Resisting Pathology: GID and the Contested Terrain of Diagnosis in the Transgendered Rights Movement." *Advances in Medical Sociology* 12:183-210.

- Christiansen, John and Irene Leigh. 2002. *Cochlear Implants in Children*. District of Columbia: Gallaudet University Press.
- Clark, John. 1981. "Uses and Abuses of Hearing Loss Classifications." *American Speech-Language-Hearing Association* 23:293-500.
- Clarke, John, Stuart Hall, Tony Jefferson, and Brian Roberts. 1975. "Subcultures, Cultures and Class." Pp. 100-111 in *The Subcultures Reader*, edited by K. Gelder and S. Thornton. New York: Routledge.
- Cohen, Albert. 1955. "A General Theory of Subcultures." Pp. 44-55 in *The Subcultures Reader*, edited by K. Gelder and S. Thornton. New York: Routledge.
- Conrad, Peter. 1992. "Medicalization and Social Control." *Annual Review of Sociology* 18:209-232.
- Cornwell, Jocelyn. 1984. *Hard-Earned Lives: Accounts of Health and Illness in East London*. New York: Tavistock.
- Downes, David. 1966. *The Delinquent Solution*. London: Routledge & Kegan Paul.
- Duggan, Maeve, Nicole Ellison, Cliff Lampe, Amanda Lenhart, and Mary Madden. 2015. "Demographics of Key Social Networking Platforms." *Pew Research Center*. Retrieved April 5, 2015 (<http://www.pewinternet.org/2015/01/09/demographics-of-key-social-networking-platforms-2/>)
- Edwards, R. A. R. 2005. "Sound and Fury; or, Much Ado about Nothing? Cochlear Implants in Historical Perspective" *The Journal of American History* 92(3):892-920.

- Fadiman, Anne. 1997. *The Spirit Catches You and You Fall Down: A Hmong Child, Her American Doctors, and the Collusion of Two Cultures*. New York: Farrar, Straus, and Giroux.
- Gale, Elaine. 2010. "Exploring Perspectives on Cochlear Implants and Language Acquisition Within the Deaf Community" *Journal of Deaf Studies and Deaf Education* 16(1):121-139.
- Gallaudet Research Institute. 2003. "2003-2004 Regional and National Summary." District of Columbia: Gallaudet Research Institute. Retrieved April 10, 2015 (http://research.gallaudet.edu/Demographics/2004_National_Summary.pdf)
- Gannon, Jack. 1981. *Deaf Heritage: A Narrative History of Deaf America*. District of Columbia: Gallaudet University Press.
- Goering, Sara. 2010. "Revisiting the Relevance of the Social Model of Disability." *The American Journal of Bioethics* 10(1):54-55.
- Gordon, Mitlon. 1947. "The Concept of the Sub-Culture and its Application" Pp. 40-43 in *The Subcultures Reader*, edited by K. Gelder and S. Thornton. New York: Routledge.
- Haefler, Ross. 2014. *Subcultures: The Basic*. New York: Routledge.
- Holcomb, Thomas. 2013. *Introduction to American Deaf Culture*. New York: Oxford University Press.
- Jenks, Chris. 1993. *Culture*. London: Routledge.
- Lane, Harlan. 1992. *The Mask of Benevolence: Disabling the Deaf Community*. New York: Vintage Books.

- Lane, Harlan. 2005. "Ethnicity, Ethics, and the Deaf-World." *Journal of Deaf Studies and Deaf Education* 10(3):291-310.
- Lareau, Alyssa Connell. 2003. "Who Decides? Genital-Normalizing Surgery on Intersexed Infants." *Georgetown Law Journal* 92(1):129-151.
- Levy, Neil. 2002. "Reconsidering Cochlear Implants: The Lessons of Martha's Vineyard" *Bioethics* 16(2):134-154.
- Lipson, Juliene and Judith Rodgers. 2000. "Cultural Aspects of Disability." *Journal of Transcultural Nursing* 11(3):212-219.
- Listening and Spoken Language Knowledge Center. N.d. "Who We Are." Retrieved April 12, 2015 (http://www.listeningandspokenlanguage.org/Who_We_Are/).
- Mann, Denise. 2010. *Cochlear Implant for Kids: Earlier Surgery Works Best*. WebMD Health News. Retrieved March 15, 2015 (<http://www.webmd.com/children/news/20100420cochlear-implants-for-kids-earlier-surgery-works-best>).
- Mitchell, Ross. 2005. "How Many Deaf People Are There In the United States? Estimates From the Survey of Income and Program Participation." *Journal of Deaf Studies and Deaf Education* 11(1):112-119.
- Mitchell, Ross and Michael Karchmer. 2005. "Parental Hearing Status and Signing Among Deaf and Hard of Hearing Students." *Sign Language Studies* 5(2):231-244.
- Mulvany, Julie. 2000. "Disability, Impairment, or Illness? The Relevance of the Social Model of Disability to the Study of Mental Disorder." *Sociology of Health and Illness* 22(5):582-600.

- National Institute on Deafness and Other Communication Disorders. 2013. "Age Related Hearing Loss." Retrieved March 15, 2015
(<http://www.who.int/mediacentre/factsheets/fs300/en/>).
- National Institutes of Health. 1995. "Consensus Development Conference Statement: Cochlear Implants in Adults and Children." Retrieved March 15, 2015
(<http://consensus.nih.gov/1995/1995CochlearImplants100html.htm>).
- Niparko, John. 1999. "Ear Implants Are Found to Aid Profound Deafness." *The Boston Globe*, March 4, p. A9.
- Oliver. Mike. 1996 *Understanding Disability: From Theory to Practice*. Basingstoke, UK: Macmillan.
- Oliver. Mike. 2013. "The Social Model of Disability: Thirty Years On." *Disability and Society* 28(7):1024-1026.
- Padden, Carol and Tom Humphries. 2005. *Inside Deaf Culture*. Cambridge, MA: Harvard University Press.
- Pray, Janet and I. King Jordan. 2010. "The Deaf Community and Culture at a Crossroads: Issues and Challenges" *Journal of Social Work in Disability and Rehabilitation* 9(2):168-193.
- Salkind, Neil. 2014. *Statistics for People Who (Think They) Hate Statistics*. Thousand Oaks, California: SAGE Publications.
- Scope. N.d. "The Social Model of Disability." Retrieved March 27, 2015
(<https://www.scope.org.uk/about-us/our-brand/social-model-of-disability>).
- Shapiro, Joseph. 1994. *No Pity: People with Disabilities Forging a New Civil Rights Movement*. NY: Three Rivers Press.

- Solomon, Andrew. 2012. *Far From The Tree*. New York: Scribner.
- Sparrow, Robert. 2005. "Defending Deaf Culture: The Case of Cochlear Implants" *The Journal of Political Philosophy* 13(2):135-152.
- Sparrow, Robert. 2010. "Implants and Ethnocide: Learning from the Cochlear Implant Controversy" *Disability and Society* 25(4):455-466.
- Swanson, Lynne. 1997. "Cochlear Implants: The Head-On Collusion Between Medical Technology and The Right To Be Deaf" *Canadian Medical Association Journal* 157(7):929-32.
- Thornton, Sarah. 2005. "General Introduction." Pp. 1-7 in *The Subcultures Reader*, edited by K. Gelder and S. Thornton. New York: Routledge.
- Tucker, Bonnie Poitras. 1998. "Deaf Culture, Cochlear Implants, and Elective Disability" *The Hastings Center Report* 28(4):6-14.
- Turner, Graham. 2006. "Why Protect Heritage Sign Languages?" *International Journal of Applied Linguistics* 16(3):409-413.
- United States Food and Drug Administration. 2014. "Cochlear Implants" Retrieved December 8, 2014 (<http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/ImplantsandProsthetics/CochlearImplants>).
- Van Cleve, John and Barry Crouch. 1989. *A Place of Their Own: Creating the Deaf Community in America*. District of Columbia: Gallaudet University Press.
- Union of the Physically Impaired Against Segregation. 1976. *Fundamental Principles Of Disability*. London: Union of the Physically Impaired Against Segregation.
- Williams, J. Patrick. 2011. *Subcultural Theory: Traditions and Concepts*. Malden, MA:

Polity Press.

World Federation of the Deaf. N.d. "Sign Language." Retrieved March 13, 2015

(<http://wfdeaf.org/human-rights/crpd/sign-language>).

World Health Organization. 2015. "Deafness and Hearing Loss." Retrieved March 13,

2015 (<http://www.who.int/mediacentre/factsheets/fs300/en/>).

Appendix A: Informed Consent Letter

In this appendix, you will find a copy of the informed consent letter participants were required to complete before participating in the research project. I wrote two different informed consent letters: one for participants taking the survey on Qualtrics and one for participants taking the paper-copy version. I decided to omit including the paper-copy version of the letter for two reasons. The first reason is that no respondents completed and submitted a paper-copy of the survey to me. The second is that the letters use the same language with the exception of where it indicates the format of the survey.

Whitman College Informed Consent Statement
Sociology Department
(971) 400-4738

My name is Nate Higby. I am a senior Sociology major at Whitman College in Walla Walla, Washington. I am doing a research project on the attitudes on Cochlear Implants held by the culturally Deaf. I am hoping to see how characteristics such as gender, language, and education influence attitudes about Cochlear Implants.

If you agree to participate in the study, you will be asked to:

- Provide me with information like your age, gender, race, education, income, primary language, degree of hearing loss, and your relationship with Deaf culture.
- Share your opinion on several statements about deafness and Cochlear Implants.

Individuals who are 18 or older and who have a hearing loss are being asked to take an online survey by using the software package Qualtrics. The survey will take less than 10 minutes to answer. Your participation in this research is completely voluntary. You maintain the right to skip any questions that you do not wish to answer or stop taking the survey at any point during the this time. You will not be asked to participate in any other way once you have taken the survey.

This survey is an important part of my thesis. Your responses will provide me with the opportunity to gain important insights about the nature of Deaf culture.

There are no foreseeable risks in taking this survey. No names, addresses, phone numbers, or email addresses will be asked for. All survey responses will be confidential and coded by ID numbers instead of by name. All survey data will be kept on a password-protected computer. Only I will have access to the data.

The survey will close during the second week in March. Please try to have completed the survey by this time (and sooner if at all possible). If you have any questions or concerns about the survey or on the research project more generally, please feel free to contact me at higbynb@whitman.edu or at (971) 400-4738. Alternatively, if you wish to contact my faculty supervisor, Professor Keith Farrington, you may contact him at farrinmk@whitman.edu.

By clicking yes below, you give consent and agree to have your survey responses included in the study described above. You also understand that you may skip questions and that you may stop taking the survey at any time. You also confirm that you are at least 18 years of age.

Thank you for your participation in this study. Your responses will be valuable to my research and are greatly appreciated.

Appendix B: Culturally Deaf Attitudes Survey

In this appendix, you will find a copy of the survey that participants completed. The copy of the survey in this appendix is the paper version of the survey. The survey is identical to the online survey.

**The following questions require you to share some information about yourself.
Please answer to the best of your ability.**

1) What is your current age?

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65 or over

2) What is your gender?

- Male
- Female
- Other

3) What race do you identify yourself as?

- White/Caucasian
- African American
- Hispanic
- Asian
- Native American
- Pacific Islander
- Mixed Race
- Other

4) What is the highest level of education you have achieved?

- Less than High School
- High School / GED
- Some College
- 2-year College Degree
- 4-year College Degree
- Masters Degree
- Doctoral Degree
- Professional Degree (JD, MD)

5) What is your annual income?

- Below \$20,000
- \$20,000 - \$29,999
- \$30,000 - \$39,999
- \$40,000 - \$49,999
- \$50,000 - \$59,999
- \$60,000 - \$69,999
- \$70,000 - \$79,999
- \$80,000 - \$89,999
- \$90,000 or more

6) What language do you use most often?

- American Sign Language
- Spoken Language
- I use both American Sign Language and Spoken Language
- Other
Please specify _____

7) What is your degree of hearing loss?

- Profound Hearing Loss
- Severe Hearing Loss
- Moderately Severe Hearing Loss
- Moderate Hearing Loss
- Mild Hearing Loss
- Slight Hearing Loss
- Normal Hearing Loss

8) At what stage did your hearing loss occur?

- Before Birth
- After Birth

9) Do you currently use any hearing devices? (ex: Cochlear Implant, Hearing Aid)

- Yes
- No

10) Have you ever used any hearing devices in the past? (ex: Cochlear Implant, Hearing Aid)

- Yes
- No

- 11) **Have you ever been told to communicate using a spoken language?**
- Yes
 - No
- 12) **Have you ever attended a school for the Deaf?**
- Yes
 - No
- 13) **Is one or both of your parents deaf or hard of hearing?**
- Yes
 - No
- 14) **Do you have any relatives other than your parents that are deaf or hard of hearing?**
- Yes
 - No
 - Do Not Know
- 15) **Do you identify yourself as culturally Deaf?**
- Yes, I identify as culturally Deaf
 - I identify in some ways as culturally Deaf
 - No, I do not identify as culturally Deaf
- 16) **How many culturally Deaf friends do you have?**
- 0-3
 - 4-10
 - 11-20
 - 21 or More
- 17) **How often do you get in touch with your culturally Deaf friends?**
- Never
 - 1-2 Times a Month
 - 1-2 Times a Week
 - 3-6 Times a Week
 - Daily
- 18) **How many hearing friends do you have?**
- 0-3
 - 4-10
 - 11-20
 - 21 or More

19) **How often do you get in touch with your hearing friends?**

- Never
- 1-2 Times a Month
- 1-2 Times a Week
- 3-6 Times a Week
- Daily

20) **Select all the culturally Deaf activities that you have done in the past.**

- Deaf Community Clubs
- School Alumni Events
- Theater for the Deaf
- Conferences
- Sporting Matches
- Religious Organizations
- Schools for the Deaf
- Exchanging Poems and Stories in ASL
- Other (please list) _____

The next questions will ask you to share your opinion about the statement. Please answer to the best of your ability.

	Strongly Don't Agree	Don't Agree	Neutral	Agree	Strongly Agree
Deafness is a medical problem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Deafness is a disability that needs to be fixed by medicine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cochlear Implants is a threat to Deaf culture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cochlear Implants is a threat to the use American Sign Language.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The government should give money so that more research can be done to repair hearing loss.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
People who can hear do not appreciate deafness as a culture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If I could, I would get a Cochlear Implant.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not respect individuals who chose to get a Cochlear Implant.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parents should be able to decide whether their deaf child receives a Cochlear Implant or not.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Children who get a Cochlear Implant should be taught ASL and Spoken English at the same time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am concerned about the future of Deaf culture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>