The influence of biculturalism on the moral development of deaf adults

Laurie Denise Duvall

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THE INFLUENCE OF BICULTURALISM ON
THE MORAL DEVELOPMENT OF DEAF ADULTS

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
in
Psychology

by
Laurie Denise Duvall
March 1998
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Approved by:

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March 4, 1998
ABSTRACT

In this study, the linkages between deaf adults' levels of biculturalism, perspective-taking, and moral reasoning were investigated. Fifty-one male and female individuals were recruited on a voluntary basis. Participants were prelingually deaf with deafness as their primary disability. The Deaf Identity Development Scale, Interpersonal Reactivity Index, and Defining Issues Test were used to measure cultural identity classification (i.e., level of biculturalism), levels of perspective-taking, and moral reasoning, respectively. Additionally, demographic information such as age, sex, duration of attendance in various school environments, and participant-rated fluency of parental signing skill was collected. It was predicted that deaf participants who had greater levels of biculturalism would display higher levels of perspective-taking and moral reasoning. Overall, biculturalism and level of perspective-taking skill were found to be significantly positively related such that an individual with a higher level of biculturalism also tended to have a higher level of perspective-taking and that individuals with higher levels of biculturalism also tended to have higher levels of moral reasoning. Biculturalism and level of perspective-taking skill were found to be significantly related, suggesting
that the greater the participants' level of biculturalism, the greater their level of perspective-taking skill. Unexpectedly, level of moral reasoning and level of perspective-taking skill were not found to be significantly related. Exploratory analyses also were done regarding the impact that school setting may have on deaf adults' level of biculturalism, perspective-taking and moral reasoning. It was predicted that the amount of time participant's spent in the commuter residential setting during their school years would be positively related to their levels of perspective-taking and moral reasoning. As expected, the greater the time spent in the commuter residential setting during the 1st-12th grades, the greater the participants' level of biculturalism. However, unexpectedly, greater amounts of time in the commuter residential setting were not found to be related to perspective-taking and moral reasoning. The discussion of the findings focuses on possible interventions that may help to enhance deaf individuals' perspective-taking and moral reasoning skills.
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INTRODUCTION

This thesis examines the influence of level of biculturalism on moral development for deaf adults and how individuals’ level of perspective-taking may mediate the relationship between these variables. The interplay between level of biculturalism and moral development is important due to the multi-cultural nature of the world in which we live. Ethnic minority children, by virtue of their ethnicity, culture, and family of origin, develop and utilize adaptive strategies when dealing with the majority culture (Harrison, Wilson, Pine, Chan, & Buriel, 1990). However, according to Rutherford (1988), since ninety percent of deaf children have hearing parents, there is high potential for the child and parent to belong to different cultural groups. I believe this unique situation creates a negative social learning environment for the deaf child with regard to developing adaptive strategies for resolving moral issues within the majority culture.

Through the course of time, due to a history of oppression and discrimination within their culture, minority families have developed techniques such as family extendedness, role flexibility, an ancestral worldview and a bicultural outlook to help them succeed within the majority culture (Harrison et al., 1990). Unfortunately, deaf
children often do not encounter these adaptive strategies from birth, because most often, deaf children do not have a model from which to learn. Their parents are from a different culture -- the hearing culture. The deaf child must face the same challenges that occur for the first-generation immigrant during acculturation. However, the deaf individual often faces these acculturation tasks in isolation. It is this isolation for the deaf individual that may impede development of higher levels of moral reasoning.

Acculturation, generally speaking, is an individual's or group's adoption of the culture of another group. Implicit to "acculturation" is the notion of two cultures in contact (Phinney, 1990). This contact would include social patterns, behaviors, values and mores (Barker, 1991). While acculturation is similar to self-identification, in fact some studies use the terms interchangeably, self-identification is but one facet of acculturation (Phinney, 1990). This thesis specifically focuses on cultural self-identification within the Deaf community. (As is the standard within the Deaf community, the capital "D" ("Deaf") refers to individuals who identify as being culturally Deaf, while "deaf" refers only to those who have a hearing deficiency (Woodward, 1972).) Particularly of interest were
those deaf individuals who are considered bicultural (comfortable in both the Deaf and hearing cultures).

Throughout the thesis I endeavor to bring out the differences between deaf and hearing individuals with regard to cognitive development, language development, communication experiences and social experiences. The studies cited in this paper point clearly to the paucity of meaningful early interactions and expression of thought for many deaf children, which precludes the deaf child from fully learning cultural values. Kalliopuska (1983) clearly states that those individuals who make mature moral judgments tend to be well socialized into their culture. If expected cultural values are not fully integrated, it would certainly impact the deaf individual's level of moral reasoning.

To examine the relationship between degree of biculturalism and the moral development of deaf adults, a review of the cognitive development of deaf children and the linkages between cognitive development and parent-child communication issues (as they pertain to early social experiences) first are presented. This is important because it establishes the similarities and differences in cognitive development between deaf individuals and the general population. A review of cognitive development is also
important to establish the links between cognitive development and moral development, which are discussed in depth subsequently.

Additionally, I have reviewed the research on communication issues, perspective-taking issues, and moral development, and clarified the linkages between moral development and biculturalism for deaf children. In order to illustrate the pathway through which I believe level of biculturalism impacts moral development, a review of the research on the linkages between biculturalism and communication issues and moral development also is presented. In essence, the rationale for the proposition that greater levels of biculturalism lead to greater moral development is as follows: in order for the individual to have higher levels of moral reasoning, they must be able to take the perspective of others (Rest, 1986). When an individual is able to understand more clearly how another thinks (i.e., greater perspective-taking ability), he or she may then more readily incorporate a broader range of possibilities into their schema and decision-making processes. For an individual to achieve biculturalism, he or she must have contact with both cultures and have incorporated the norms of both cultures into his or her belief system. This incorporation necessitates that multiple
perspectives, as well as potentially differing cultural norms, be taken into account when making decisions of any kind, which would include moral judgments. Indeed, according to Rest (1986), it is the individual’s awareness of the world around them in general and more specifically each person’s place in the world that fosters moral development. In essence, the bicultural person approaches life decisions with the perspective of both cultures -- they have a broader awareness. As a result of this greater awareness and increased perspective-taking ability, it would seem to follow that those who are bicultural would have greater moral development as well. Since a bicultural perspective promotes the evaluation of the values of two cultures, the bicultural person is believed to use their increased perspective-taking abilities in a similar manner with respect to moral reasoning. The perspective of the other is taken into consideration when making moral decisions. This multiple perspective-taking is essential to moral reasoning. Higher levels of moral reasoning are achieved through interactions with others and defined by mutual standards (Hoffman, 1988). By gaining the ability to take another’s perspective, we are no longer seeing the situation through our own limited perspective. Through interaction with others a whole new vista is opened.
As such, deaf children's isolation from meaningful early interactions with others, especially primary care-givers, leads to inadequate communication (Peterson & Peterson, 1990). This inadequacy of communication leads to delays in development of language and expression of thought. If, in fact, the deaf individual has a more limited development of language and expression of thought, due to limited interactions with primary care-givers, the deaf person may have more limited perspective-taking skills as well, which, in turn, may result in lower levels of moral reasoning (Sam & Wright, 1988). (See Appendix F, Figure 1)

So, the question arises: Will the moral reasoning of deaf adults be at a lower than the level observed in hearing adults? And second, what role does level of biculturalism play in moral reasoning? These questions motivate this study. It is important to note that there is no judgment made to the effect that those who are uni-cultural are morally "bankrupt". However, according to Damon (1988), an individual's culture (for the purpose of this thesis, their biculturalism) is important because the moral values communicated within different cultures or societies across the world are certainly very diverse. For those who are bicultural, it is believed that there are distinct advantages. Through social communication the bicultural
individual learns of the differences in values held by two cultures, and in turn, the learning of these cultural differences is associated with using varied perspectives in making moral decisions. These differences in moral orientations are found not only cross-culturally, but within cultural subgroups as well. Specifically, increased opportunities in perspective-taking are afforded the bicultural deaf child that the uni-cultural deaf child does not experience. (Again, this deficit is being suggested due to the difference in culture between most deaf children and their hearing parents and the negative social learning environment that this establishes.)

Perhaps the very process of moving through identity stages toward biculturalism may promote greater moral development and higher levels of moral reasoning. It has been posited that higher cognitive functioning is exhibited by those who are able to effectively alternate their use of culturally appropriate behavior (LaFromboise, T., Coleman, H. L. K., & Gerton, J. (1993). In the course of moving through cultural identity stages toward biculturalism, the deaf person may gain knowledge that enables him or her to know and understand two different cultures.

A factor which may influence an individual’s level of biculturalism is their level of cognitive development.
Studies have suggested that deaf individuals are consistently behind their hearing peers in terms of cognitive development (Peterson & Peterson, 1990). As such, an understanding of the cognitive as well as the moral development of deaf children is necessary in order to better comprehend deaf adults' development in these areas.

**Cognitive and Moral Development**

Although children's development has been studied quite extensively, the psychological development of deaf children has been studied in a somewhat limited manner. When deaf children's development is studied, the domain of cognitive development generally has been the focus (Peterson & Peterson, 1990). Within the domain of cognitive development, deaf children are found to be consistently behind their hearing peers. There can be little doubt of this as numerous studies evince this fact (See Peterson & Peterson (1990) for a review).

For example, according to Furth (1964) among others (e.g., Liben, 1978; Raviv, Sharan & Strauss, 1973; and Watts, 1979), deaf children often have extreme delays in cognitive development for concrete-operational concepts such as conservation and quantitative and spatial thinking. Deaf children also are behind their hearing peers in the areas of symbolic manipulation, inferential reasoning and the
formation of abstract ideas (Sharpe, 1985). Specifically with regard to moral reasoning, it has been suggested that attainment of a specific cognitive stage is necessary but not sufficient for attainment of a corresponding moral stage (Sapp, 1986). As such, there must be further mechanisms (such as perspective-taking) that influence moral reasoning.

The causes of deaf children's cognitive delays are unknown, but perhaps they can be attributed to factors such as limited access to early childhood social experiences or to inadequate means of communication with parents (Maher, 1989). The important issues of parent-child communication and early social experiences for deaf children in cognitive, and particularly, language development, also have implications for their moral development. Therefore, parent-child communication issues and early social experiences are discussed next, and then linked to deaf children's moral development.

Communication Issues

There is little doubt that communication is an integral factor in a child's cognitive development, whether it be peer or parental communication. Too often, however, parent-child communication suffers due to the lack of parental awareness of their child's deafness and inability to communicate with their deaf child (Fromkin & Rodman, 1988).
Deaf children frequently are misdiagnosed as mentally retarded or their deafness is "unnoticed" before the age of five (Alpiner and McCarthy, 1987). Unfortunately, during this critical period for cognitive development (i.e., the first five years of life), specifically language development, deaf children often are isolated from children and adults (Maher, 1989). This isolation may come about because parents may be embarrassed by their child's handicap or are simply attempting to shelter their child. When the child's deafness is not acknowledged or known, no compensatory strategies may be introduced in these crucial early years by parents. The genesis for deaf children's limited social experience may be found in this inaccurate diagnosis, or in the total lack of a diagnosis.

Social Experience

Early social experiences are important for learning how to use language in social situations and for developing social cognition (e.g., perspective-taking skills; Stevens, 1974); therefore, early isolation from others is a grievous detriment suffered by many deaf children. Woodward, Allen and Schildroth (1988) assert that for deaf children, reduced communication with hearing parents may preclude the child from fully learning cultural values in the home environment. Deafness can isolate the child from meaningful early
interactions with others. Also, when the deaf child enters school, often there is no understanding of language or speech (Tomlinson-Keasey & Kelly, 1974). And, deficits in communication affect the development of language and expression of thought which, in turn, affect moral development.

Links Between Language and Moral Reasoning

Since higher levels of moral reasoning are achieved through interactions with others and are defined by mutual standards (Hoffman, 1988), it is important that the deaf child have a language system which is sufficient to allow the child to communicate their own standards and to understand those of society (Tomlinson-Keasey & Kelly, 1974). If language is not established there is no means for the child to communicate between their internal thought processes and the outside world. Such is the case of the deaf child born to hearing parents who are unable or unwilling to communicate with their deaf child through a language system more accessible to the child. As a result, the deaf child faces an extremely difficult pre-operational period (Tomlinson-Keasey & Kelly, 1974).

Self Feedback

Equally important as the reduced ability to communicate with the outside world is the absence of self-feedback. The
deaf child without language lacks the capacity to give self-feedback. Just as a hearing child will talk to him or herself, the deaf child who has an established manual language system will sign to him or herself (Tomlinson-Keasey & Kelly, 1974). These spoken or signed symbols of language are used as feedback to facilitate understanding. If language is not developed, understanding of others and others' moral standards can be limited. The deaf child is then less able to take others' perspectives, and in turn, progress as easily through stages of moral development. With language taking such a vital role in the facilitation of understanding, it is tragic that many deaf children are unable to communicate effectively with their parents.

*Family of Origin Experiences*

Communication problems are a crucial issue in rearing any child, whether hearing or deaf (Ginsberg, 1989). However, in a survey of signing deaf children, 21% of the children were from families where neither parent had any signing skills; 25% had one parent with "basic" signing skills; and 54% had "reasonable" to "very good" sign language skills (Peterson & Peterson, 1990). This survey indicates that 46% of the children had inadequate communication with their parent or primary care-giver.
Communication deficits can be due to differing modes of communication by parent and child and the deaf child’s decreased responses to parent-initiated interactions. Those communication deficits, which may be oral/aural in nature (baby-talk, cooing, etc.), result in frustration and "burn out" for both hearing parent and deaf child (Peterson & Peterson, 1990). While other non-verbal signals such as facial expressions, hugs and such can be important components of parent-child communication, a great wealth of information is lost to the deaf child by virtue of the use of a means of communication which is unavailable to him or her, that of spoken language. It seems apparent that social adjustment would be more difficult for deaf children due to reduced parent-child interactions (whether verbal or in sign language). Additionally, as will be discussed later in more depth, due to communication difficulties, parents also may give less feedback and more limited explanations to their deaf children when correcting them with regard to expected social behavior (Peterson & Peterson, 1990). This, in turn, will influence the development of moral reasoning and perspective-taking skills for the child. It is through internalization of repeated interactions with care-givers and continued social referencing and reinforcement, that a child is able to develop his or her moral reasoning ability
(Peterson & Peterson, 1990). Deaf children, at least those in homes where there are communication difficulties, do not have this opportunity.

**Peer Experiences**

As was stated previously, communication is an integral factor in children's cognitive development, and moreover, their moral development, whether it be peer or parental communication. Therefore, when deaf children enter school, their level of communication with peers also can play a role in their cognitive and relatedly, their moral development. Peer interactions may be especially important for conflict resolution (Peterson & Peterson, 1990) and moral reasoning. However, deaf children's moral reasoning may or not be fully developed due to different levels of exposure to conflictual experiences with peers, and depending on the type of school program they attend. Most programs for the deaf can be classified as either mainstream, residential or commuter-residential. Mainstreamed students are in a primarily hearing school with an interpreter-aide for facilitation of communication with faculty, staff and other students. Residential students remain with their deaf classmates at the school during the week but visit their homes on the weekend and school holidays. Commuter residential students attend the residential facility but commute to the school
daily and live at home with their parents or another primary care-giver.

Reduced communication during school-aged years would certainly be an issue for those students who attend mainstream programs. Mainstreamed students would not be as easily afforded the opportunity to interact socially with peer group members unless interpreters are available during non-class periods as well (Foster, 1989). Additionally, even if interpreters are made available it seems evident that the quality and type of interactions between children are changed when an adult becomes involved. During all interactions, a third party, the sign-language interpreter, would need to be present to facilitate communication. However, for those students who attended either commuter or residential programs this would not be a consideration, as the dorm parents and all others at the school inevitably know American Sign Language (ASL) (Braden, Maller & Paquin, 1993).

Regardless of school setting, the additional factor of social isolation that the child may have experienced prior to attending school must be taken into account when looking at the child’s social experiences. This point is particularly salient if parents or primary care-givers were non-signers, implying that there would be even greater
isolation for the deaf child. This isolation (Maher, 1989) would hinder the deaf child’s perspective-taking and empathic thinking by restricting the range of people and differing perspectives on issues to which the child is exposed.

Peers and Perspective-taking

In their study on sociocognitive conflict and spatial perspective-taking with deaf children, Peterson and Peterson (1990) found that deaf children benefited significantly from peer debate. This was most markedly demonstrated when partners in a dyad employed similar communication methods (American Sign Language, Signed English or the Rochester method). Collective conflict was clearly shown to stimulate cognitive growth. Collective conflict involves working with peers, who exhibit similar ability and communication styles, to resolve a conflictual situation. Because cognitive growth is stimulated through collective conflict it would seem that a residential school setting, where there is ample opportunity for interacting with peers, would be the most beneficial setting for the development of deaf children’s cognitive and moral development, through their learning of perspective-taking skills during these interactions. With regard to moral development specifically, when making a moral decision the individual must consider others. As such,
taking another's (often differing) perspective into account would also seem to be a prerequisite for higher levels of moral reasoning (Sapp, 1986). This would suggest that adults who lived as children at residential schools may have had greater opportunities for growth in the area of moral reasoning through peer interactions in general. This study (Peterson & Peterson, 1990) shows that the residential setting provided for strong peer relationships and, as such, was beneficial for the deaf child’s development. (See Appendix F, Figure 2)

However, it is my belief that a commuter-residential program would be even more conducive to deaf students’ moral development. That is to say, through contact with the hearing and Deaf cultures, the child in a commuter-residential program would be exposed to the changes in values, attitudes, behaviors and identity that individuals experience when they come into contact with a culture other than their own (Brubaker, 1994). The commuter-residential program would increase deaf students’ opportunity for psychological acculturation, or more precisely, biculturalism. It is true that while the deaf child in a residential program is afforded frequent opportunities for debate and interaction with deaf peers, there are fewer potential opportunities for bicultural experiences between
the Deaf and hearing cultures. The commuter-residential student has the same opportunity for interaction and debate with deaf peers but in a bicultural context. By the same token, the deaf child in a mainstreamed program may have greater opportunities to interact with hearing peers, but due to the physical disability of deafness they often are unable to completely fit into hearing culture, thus falling into the culturally marginal category (identifying with neither Deaf nor hearing culture). The benefit for the commuter-resident student can thus be seen clearly. The deaf child in a commuter-residential program is afforded the opportunity not only to interact with deaf peers but also with hearing peers. Additionally, the deaf child views him or herself as a member of Deaf culture but has opportunity to interact with the larger hearing culture as well. Contact with a culture other than one’s own offers greater opportunities for perspective-taking, growth and development for the deaf commuter-residential child. The study reviewed below regarding the intelligence of deaf students indicates the impact school setting, as a means of acculturation, can have on the individual.

**School Setting Influences**

In a study conducted by Braden, Maller and Paquin (1993), performance IQ tests were compared for students in
residential, commuter-residential and mainstream day programs. This particular residential program, which both the residential and commuter-residential students attended, subscribed to a total-communication philosophy in which the curriculum was delivered in sign language and voice simultaneously by faculty skilled in American Sign Language (ASL). Residential students remained at the school during the week but visited their homes on the weekend and school holidays. As with most residential schools, sign-language skills were not restricted to teaching faculty. Students were able to communicate using ASL with adults in various staff positions from janitor to superintendent as well as with children of various ages. Commuter-residential students were at the same facility, but commuted to the school daily. Mainstreamed day program students were in a primarily hearing school with an interpreter-aide for facilitation of communication with faculty, staff and other students. A comparison of Wechsler Performance Scale (WPS) scores for performance IQs was made which reflected no change in the mainstream day program students' scores during the period between entry into the program and re-evaluation three years later. However, it was found that both residential and commuter-residential student scores improved by approximately 7-10 points, with commuter-residential
students showing the most improvement (Braden, Maller & Paquin, 1993). It is not the intention of this thesis to suggest that IQ is equivalent to moral development. Nor is it the case that an individual who possesses a high level of moral reasoning or IQ will utilize either of these qualities in his or her everyday decision making. Instead, the suggestion is that, since such improvement has been shown in the area of IQ, similar improvements or differences could be expected in related areas, such as moral development.

The Deaf community has long supported the value of residential schools as a richer, more positive environment than mainstream schools for deaf children (Bahan, 1989). This seems to be true for IQ, as suggested from the aforementioned study. As such, it also may provide a richer environment for other domains. At the very least, there seems to be a feeling of a trade-off of academic or social growth depending on the setting of the deaf individual (Foster, 1989). In essence the trade-off encountered is that while the deaf child attending a mainstream school may receive a better academic education, Deaf culture and social knowledge provided by the more extensive peer interactions of the residential program are lost (Padden & Humphries, 1988). With regard to the differences of school setting for deaf children, it is interesting to note that a deaf child
may attend any combination of school programs throughout his or her academic career. It would then seem that the more varied exposure to both deaf and hearing environments provided to the commuter-residential student would be richer than the experiences afforded to students who attend school only in the residential school setting.

Moral Development and Reasoning and its Links with Perspective-taking

Cognitive development for deaf individuals has been studied extensively in terms of the type of school attended and its linkages with IQ. Unfortunately, an area that seems to have been overlooked is moral development. Emde (1993) states that it seems all systems of morality are based on the philosophy, "Do unto others as you would have them do unto you." While it is clear in the egocentric view of the pre-operational child what they would have others do involves their own desires and needs, it is not until empathy is acquired that the child begins to fully consider and understand the desires of others. Emde (1993) proposes that by the end of the second year of life, a child has acquired this basic element for positive morality, that is, empathy.

Empathy is gleaned from day-to-day interactions with primary care-givers according to Emde (1993). Through
internalization of repeated interactions with care-givers and continued social referencing and reinforcement, the child is able to develop morally. Due to an inability to communicate with their deaf children (as noted earlier) hearing parents may tend to give limited explanations or justifications to their children when taking disciplinary action with them (Peterson & Peterson, 1990). Hearing parents of deaf children also may employ conflict avoidant family patterns, such as ignoring wrongdoing, due to communication difficulties. Peterson and Peterson (1990) highlight how children subsequently gain only limited knowledge of others' perspectives and feel less confident when resolving contradictory situations if their parents utilize this conflict avoidant pattern. Through limited exposure to conflict solving opportunities it becomes more difficult for the deaf child to progress through successive stages of moral development and achieve cognitive equilibration in each stage. For the deaf child in a residential setting, the issue of parental communication becomes somewhat more complicated. Not only are there biological parents, there are also "dorm parents" who also impact the deaf child's life by taking on many of the day-to-day duties of a parent.
It is crucial that the reader realize that many deaf children live in residential schools for the deaf and in essence their “dorm parents” become surrogate parents. The dorm parents are often young deaf adults of college age (21-30). It also is important to know that the dorm parents may change throughout the deaf child’s school-aged years, thus disrupting attachment to these “surrogate parents”. This added complication of who is seen as the primary care-giver and disrupted attachment with the primary care-giver may be a contributing factor to the deaf child’s level of moral judgment (Maher, 1989). Speicher (1994) addresses the family patterns of moral judgment for adolescents, young adults and their parents and has found that adolescents’ and young adults’ moral judgment was consistently related to affectively positive family relationships, family communication, and parental understanding and support. While Speicher’s (1994) study was conducted with hearing individuals, it would seem just as likely to hold true for deaf adolescents and young adults. Deaf persons’ moral judgment would be influenced by their care-givers as well. However, as opposed to most hearing children, primary care-givers for deaf children may be younger than their biological parents and their position in the child’s life is more transitory.
Since we have seen in the data available from cognitive studies of deaf children that they experience cognitive delays, it then can be hypothesized that, in addition to delays in cognitive development for deaf children in general, there may be delays in moral development as well.

Cultural Identity

It is postulated that those adults who have been exposed to the widest variety of experiences in the deaf and hearing cultures (those with the highest bicultural scores) will show the most developed moral reasoning. Glickman and Carey (1993) have established four categories of cultural identification within the deaf population: 1) culturally hearing, 2) culturally marginal, 3) immersion, and 4) bicultural. (See Appendix F, Figure 3) The culturally hearing person views deafness as a medical pathology or disability. These deaf persons are not a part of Deaf culture. Instead, they are a part of hearing culture. They interact primarily, if not exclusively, with hearing people. Culturally hearing persons value oral means of communication such as speech, and lip-reading. The second cultural identity is culturally marginal. Deaf people who are culturally marginal do not fit in with either the hearing or Deaf world. (It is important to recall that unlike other cultural minorities, the deaf child is typically not born to
parents of the same culture. Ninety percent of deaf children are born to hearing parents). Culturally marginal deaf persons have tried to "pass" as hearing, forming an identity as neither deaf nor hearing but somewhere in-between. Immersion is the third kind of deaf cultural identity. Within this category there is a complete reversal from the first, culturally hearing identity. The immersed deaf individual sees deafness as the proper way to be. Often viewing hearing persons as oppressive, these individuals shun all vestiges of hearing culture such as use of voice, or hearing aids. Those individuals in the final category, bicultural, are comfortable in both the deaf and hearing worlds. They value their Deaf culture but also appreciate and interact with hearing people. Glickman and Carey (1993) see these categories as developmentally related stages, viewing biculturalism as the highest level. Therefore, biculturalism can also be related to the highest stages of cognitive and moral development. [For a comparison of how cognitive development (according to Piaget), perspective-taking, moral development (according to Kohlberg) and deaf biculturalism (according to Glickman and Carey) are related, see Appendix E, Table 1.]
Hypotheses
The present study investigated the interrelationship among deaf adults' level of bicultural identity, level of moral reasoning, and the individuals' level of perspective-taking. Specifically, it was hypothesized that individuals whose levels of bicultural identity were higher (i.e., those with higher scores in the "bicultural" category of Glickman and Carey's scale, 1993) would have greater levels of perspective-taking skills and as a result would exhibit higher levels of moral reasoning. In addition, in this thesis, I also have explored the relationship between the type(s) of school programs the deaf adult participants attended as children and their current level of moral reasoning, perspective-taking and biculturalism. It is believed that greater time spent in the commuter residential setting during the 1st-12th grades will be positively and significantly associated with higher levels of moral reasoning, perspective-taking and biculturalism.

METHOD

Design
A correlation-regression approach was used to investigate the interrelationship between level of bicultural identity, level of perspective-taking and level of moral reasoning. For this study, the bicultural scale was
used from Glickman and Carey's (1993) Deaf Identity Development Scale (DIDS) to determine participant's level of biculturalism. The participant's level of perspective-taking skill was assessed using the perspective-taking subscale of the Interpersonal Reactivity Index (IRI) (Davis, 1983), and the level of moral reasoning was determined by the Defining Issues Test (DIT) (Rest, 1974). Although moral reasoning provides categorical data, the DIT is continuous in nature and was used as a continuous measure. P scores, explained below, were used as indices for levels of moral reasoning. Participants

Fifty-one participants (22 male and 29 female) were recruited on a voluntary basis. Participants were required to be prelingually deaf (i.e., loss of hearing before age 5) with deafness as their primary disability. Recruitment of participants was conducted through e-mail on the internet as well as through distribution to deaf students' personal mailboxes at a large university and individual distribution to students at a small community college in Southern California. Participants were treated in accordance with the Ethical Principles of Psychologists and Code of Conduct (American Psychological Association, 1992.)
Materials

Moral Reasoning. The short form of the Defining Issues Test (DIT) established by Rest (1974) was used as the measure of moral reasoning. The short version of the test includes three moral dilemma vignettes (Heinz, Prisoner, and Newspaper). Associated with each vignette are 12 statements representing various stages of moral reasoning. After reading each vignette, the participants rated the importance of each statement using a 5-option scale (great importance, much, some, little, and no). Then participants selected the four most important items from the 12 statements that assisted them in making their decision and ranked them as most important, second most important, third most important and fourth most important. The P (Principled Morality) score is calculated from responses that reflect participants' reasoning level at stage 5A or above. Using the P score, the participant's moral development in relationship to Kohlberg's moral development theory, could be assessed. The DIT discourages separation of the total sample into different stages of moral development. According to Rest (1986), the DIT test-retest reliability for the P (sum of weighted ranks given to Stage 5 and 6 items) and D (overall index or moral judgment development) scores are generally in the high .70s or .80s, with a Cronbach's alpha for
internal consistency in the range of .75 to .79. (See Appendix A for sample items.)

**Level of Perspective-taking.** The Interpersonal Reactivity Index (IRI) (Davis, 1983) is a 28-item measure with 4 subscales that focuses on perspective-taking, fantasy, personal distress, and empathic concern. Each subscale consists of seven items which were rated by participants using a 5-point Likert scale with end points anchored at 1 = "Does not describe me well" and 5 = "Describes me very well." The possible total score range is 28 to 140. Of particular interest in this thesis is the seven-item subscale of perspective-taking. The score range for this subscale is 7 to 35. Mean scores for the IRI perspective-taking subscale have been reported by Davis as ranging from 16.78 (for males) to 17.96 (for females). Sample questions include: "I sometimes find it difficult to see things from the 'other guys' point of view." and "I try to look at everybody's side of a disagreement before I make a decision."

As reported by Davis (1980) all four subscales have satisfactory internal and test-retest reliabilities (internal reliabilities range from .71 to .77; test-retest reliabilities range from .62 to .71). In Davis' study,
Cronbach’s alpha coefficient was .56 for the perspective-taking subscale (See Appendix B for sample items).

**Cultural Identity Classification.** The Deaf Identity Development Scale (DIDS), developed by Glickman and Carey (1993), was used to assess bicultural level (See Appendix C for items). The DIDS is a 60-item self-report questionnaire. Participants were asked to respond to each of 60 statements using a 5-point Likert-type scale by indicating how much they agree (or disagree) with each statement: 1 = agree, 2 = somewhat agree, 3 = unsure, 4 = somewhat disagree, and 5 = disagree. The DIDS has four subscales: hearing, marginal, immersion, and bicultural. Each subscale has 15 items, with a score range of 15 to 75. Total score-range is 60-300. For this study, only the bicultural sub-scale was used. Higher scores on the bicultural sub-scale indicate greater levels of bicultural self-identification. The score mean reported by Glickman and Carey for the bicultural sub-scale is 3.92. The DIDS is still in development; however, according to results obtained by Glickman and Carey, the scales appear internally consistent with alpha coefficients for the scales as follows: hearing, .86; marginal, .77; immersion, .83; and bicultural, .81. In this study, Cronbach’s alpha for the bicultural subscale was .76.
Demographic Information. Additionally, demographic information including age, sex, duration of attendance in various school environments from preschool through twelfth grade, and participant-rated fluency of parental signing skill was collected.

Procedure

All prospective participants recruited through the internet were sent an e-mail request to participate in a research project. The participants also were informed of the nature of the questions that would be asked. An informed consent was sent via e-mail to those who indicated their willingness to participate. All internet data collection was done through an anonymous e-mail server to maintain confidentiality and anonymity. Once informed consent forms were returned via e-mail, the participants received the questionnaire through the anonymous server. Participant responses were collected and compiled by this method over a three-month period. Upon receipt of the survey data, the participant was sent a debriefing statement via e-mail. For those participants receiving the survey directly from the researcher, an informed consent was given along with the survey. After the surveys were collected, a debriefing statement was given to the participants. Response time for the questionnaire was approximately one hour.
Scoring and Analyses

In this study, a probability level of $p = .05$ was adopted for concluding statistical significance for each test. The following analyses were conducted: Pearson product-moment correlations were run for 1) Bicultural identification and moral reasoning; 2) Bicultural identification and perspective-taking; and 3) Perspective-taking and moral reasoning. In addition, exploratory analyses examined the impact that deaf adults’ school setting had on their levels of biculturalism, perspective-taking, and moral reasoning. The focus of the exploratory analyses was the impact of time spent in the commuter residential setting on biculturalism, perspective-taking, and moral reasoning. In order to conduct the school setting analyses, deaf participants’ first through twelfth grade school settings first were classified into one of three settings: 1) Residential or mostly residential (R), 2) commuter residential or mostly commuter residential (CR), and 3) mainstreamed or mostly mainstreamed (M). The number of years spent in the commuter residential school setting were calculated for each participant. Then, the relationship between the number of years spend in the commuter residential setting and levels of biculturalism, perspective-taking, and moral reasoning was examined.
score ranging between 0-12 was possible, with 0 indicating that the participant had spent no time in the commuter residential setting and 12 indicating that all 12 years were spent in commuter residential programs.

RESULTS

Table 2 gives the means, standard deviations, and ranges for the three variables studied (i.e., level of bicultural identification, level of moral reasoning, and level of perspective-taking) and Table 3 provides the Pearson product-moment correlation coefficients. A Pearson product-moment correlation first was run between level of biculturalism and level of moral reasoning. In general, individuals with higher levels of biculturalism tended to have higher levels of moral reasoning as well. However, the relationship was not statistically significant. (See Appendix E, Table 3.) Level of biculturalism and level of perspective-taking skill were found to be significantly related, \( r(51) = .30, p < .05 \). This suggests that the greater the participants' level of biculturalism, the greater their level of perspective-taking skill. However, unexpectedly, level of perspective-taking skill and level of moral reasoning were not found to be significantly related. Because the adults' level of perspective-taking skill and
level of moral reasoning were not found to be significantly related, a path analysis could not be conducted.

**Exploratory Analyses**

While exploring the impact that school setting made on the linkages between deaf adults' level of biculturalism and moral reasoning, some interesting results were found. As mentioned in the scoring and analysis section, participants could obtain a score ranging between 0-12 (0 indicating no years spent in the commuter residential setting and 12 indicating that the participant had been in the commuter residential setting each year for grades 1-12). Correlations were then run between the commuter residential variable and levels of biculturalism, perspective-taking, and moral reasoning. The results of the exploratory analyses in the current study indicate a significant relationship between greater number of years spent in the commuter residential setting and participants' higher levels of biculturalism, $r(51) = .35, p < .01$. That is, the greater the number of years spent in the commuter residential setting, the higher the level of participants' biculturalism. However, unexpectedly, there was no significant relationship between the number of years spent in the commuter residential setting and levels of perspective-taking and moral reasoning.
DISCUSSION

The hypothesis that there would be a significant relationship between moral reasoning and perspective-taking for Deaf adults was not confirmed in this study. In other words, the prediction that individuals with higher levels of moral reasoning would evidence higher levels of perspective-taking was not confirmed. Why would the positive correlation found throughout the general population between perspective-taking and moral reasoning not be found for the deaf population?

There may be multiple reasons why the hypothesis of this study was not fully confirmed. First, it may be that there were differences between the language of the measures used (English) and the native language of the target culture (Sign Language). Originally, it was not thought that there would be a problem with differences between the language of the measures and the native language of the target population. The assumption that there would not be any important language differences was based on the fact that the measures utilized were written at the 6th grade reading level and the majority of the participants were college students. However, results obtained in this study suggest that language used in the measures may have been too complex for the participants. For many Deaf people, American Sign
Language, not English, is their primary means of communication. This difference in language may have made the questionnaires difficult for the participants to understand, thus confounding the results obtained. Perhaps the measure of moral reasoning, the Defining Issues Test, especially presented problems for the participants due to the complex style in which it was written and its use of hypothetical dilemmas. Deaf individuals have distinct standards with regard to what characterizes "good language"—and particularly what characterizes "good English". To understand this point more fully it is important to understand that within the deaf community there are a variety of sign-systems that are used (Klima & Bellugi, 1979). Each sign system is construed by the population using it as having a specific implication associated with its use. The three general categories of sign-systems are American Sign Language (ASL), Pidgin Sign English (PSE) and Manually Coded English (MCE) which are briefly described here. ASL is a naturally occurring language that does not follow English word order, but is nonetheless a bona fide linguistic system with its own rules and structure (Klima & Bellugi, 1979). PSE is a "contact" language, i.e., an intermediate between ASL and MCE (Woodward & Markowicz, 1980). It borrows structure from both languages and uses a much more
simplified structure. MCE is a sign system that follows English word order exactly and includes specific signs for word endings, tenses, et cetera (Moore, 1978). MCE was constructed for the purpose of teaching English to deaf persons. In using these sign systems, there is a hierarchy that “many deaf individual themselves retain...that places English, the language of the hearing at the top...” (Gustason, 1973, p. 16). Gustason further states that when asked to define ASL, few deaf individuals are able to do so. Instead the deaf person identifies the user of ASL as “low verbal”, using “poor”, “bad” or “broken” English. Larry J. Berke of the Model Secondary School for the Deaf (1987) proposed that deaf individuals “think that MCE and PSE use a lot of big words and have a lot of vocabulary and that ASL has none” (p. 178).

With all this in mind, it may be that Deaf individuals equate more “pretentious” or “lofty” language with “good English” and, therefore, may choose a “lofty” statement as the best moral choice even though the language of the statement was not entirely clear to them. Therefore, they may choose the most “lofty” statements, even if these are not the best moral choices. Many of the items in the DIT contain such responses and as a result, because of language
constraints, the DIT may be non-reflective of the true level of moral reasoning skills the participants have.

As a second possibility, it may be that biculturalism influences moral reasoning through some other mechanism, such as parent-child communication, rather than (or in conjunction with) perspective-taking skills with peers. It could be the case that perspective-taking skills are honed in the college setting, but moral reasoning skills are acquired in the home setting. If this is the case, perhaps the parent-child relationship is the mechanism that most affects moral reasoning. According to Maher (1989), there must be empathetic communication for formation of the self to occur. Even though the participants ranked their parents as knowing sign language, perhaps the parents are overwhelmed by the language difference and thus are trying to simply communicate with their child about daily tasks, leaving little energy to deal with more complex issues such as morality. In the current study, participants ranked a mere 30% of their mothers as having "good" to "excellent" signing abilities. Furthermore, the percentage of fathers rated in the categories of "good" to "excellent" by participants in the current study was a very low 10%. This agrees with the literature regarding parental signing ability (Peterson & Peterson, 1990). With this profound lack
of parental communication, it can be suggested that communication within the household may have been much more directive in nature than interpretive.

In the home situation, it also may be that the deaf child is in a more authoritarian than authoritative setting, (that is, parents may more often deal preemptively or rigidly with the day to day issues due to communication problems with their deaf child) and this type of setting is not enough for the deaf child to become a morally-minded adult. Rather, they perhaps become more restricted to lower levels of moral reasoning as the “rules” of the household may be coming across, but the “whys” for the rules are left out of the equation. According to Maher (1989) authoritarian styles of communication may lead to a more “rigid concept of self and an interpretation of reality that is concrete and matter of fact” (p. 214). This would suggest that the deaf individual would be limited in terms of moral reasoning level to stages two and three. Indeed, the participants in the current study were in stage two or three in DIT measures of moral reasoning, indicating that they are not thinking about moral issues at more than a “punishment” or “duty” level.
Exploratory Analyses: The Effects of School Setting

It was hypothesized that there is a significant relationship between greater time spent in the commuter residential setting and participants' higher levels of biculturalism. However, unexpectedly, there was no significant relationship between years spent in the commuter residential setting and levels of perspective-taking and moral reasoning. As such, it may be seen that school setting seems to play an important role with regard to deaf adults level of biculturalism, albeit not for levels of perspective-taking and moral reasoning. But why? This leads back to the literature and the factors which act upon the variables of biculturalism, level of moral reasoning, and level of perspective-taking that are addressed in the current study.

While ethnic minority children develop adaptive strategies from interaction with their parents (Harrison, Wilson, Pine, Chan, & Buriel, 1990), ninety percent of deaf children have hearing parents belonging to a different cultural group, i.e., hearing culture (Rutherford, 1988). Additionally, 46% of the parents of deaf children (Peterson & Peterson, 1990) are, in essence, unable to communicate with their deaf child beyond the rudiments of daily life. The deaf child therefore is very likely to be in an
undeniably negative social learning environment. Kalliopuska (1983) stated that individuals who make mature moral judgments were well socialized into their culture. If the deaf child is isolated from meaningful early interactions and adequate communication with parents (Peterson & Peterson, 1990), then the primary means of socialization for these individuals may very well occur through the school setting in which the deaf child is placed. The commuter residential program seems to be especially important for development of biculturalism because it is in that setting that the deaf child is able to have the best of both worlds through contact with both the hearing and Deaf cultures. This setting is able to provide the opportunity for the deaf child to be exposed to values, attitudes, and behaviors which may differ from their own by coming into contact with a culture other than their own.

Furthermore, various approaches or philosophies within school settings may greatly impact deaf adults. It is important to remember that within the school setting (residential, commuter-residential and mainstreamed) there may be approaches or philosophies that differ. As an example, two students may have responded that their school setting was "mainstreamed", yet they may have had sharply differing experiences within that setting. This possibility
is strengthened by additional information on several of the questionnaires that had been penciled in, such as “mainstreamed, but in an all deaf classroom,” “mainstreamed, transferred to a hearing school with no interpreter or other services—depended only on lipreading,” “mainstreamed-only deaf student in the school”. It is suggested that these students had very different experiences from each other although each listed “mainstreamed” as their school setting. 

Study Limitations

In this study, the population was restricted and may have possessed certain limiting characteristics which influenced the data. It could be that recruitment of participants, primarily done at colleges, restricted the sample and that these participants had greater communication with peers, thus increasing perspective-taking skills (albeit lower moral reasoning levels due to home influences). In the current study forty-three per cent (22 participants) spent the entirety of their education, grades 1-12, in a mainstreamed setting, while an additional seventeen per cent (5 participants) spent eleven of twelve school years in the mainstreamed setting. Thus, the current study sample is biased toward mainstreamed experience, with fifty-two per cent of the participants listing their educational background as “mainstreamed”. It is possible
that Deaf adults who attended "mainstreamed" school programs decide more often than peers in other school settings to continue on to higher education and that in the college setting they begin to acquire greater perspective-taking skills. It is further possible that although these college attendee participants seemed to be extremely low in moral reasoning level, non-college deaf adults may have even lower moral reasoning levels. Each of these questions could be interesting areas of further study.

I continue to have faith in the original hypothesis although it was not supported by this study. If future studies which account for the potential confounds of language differences and parent-child communication support this hypothesis, several programs may be found to be extremely beneficial to the deaf community. These might include the introduction of programs that would provide opportunities to increase perspective-taking and moral reasoning abilities for deaf youngsters who may be in more sequestered environments whether they are "residential" or "mainstreamed". It also may prove beneficial to implement a more bicultural approach to the education of deaf children in a "mainstreamed" setting. Educating deaf students by means of a bicultural model would give these students the opportunity to gain a broader range of cultural experiences.
which could then afford the deaf individual the greater perspective-taking skills necessary to make higher level moral decisions. A third possible course of action may be to reduce the isolation of deaf children and their families through early interventions. Specifically, areas that would need to be addressed would be the caregiver-child relationship, the importance of parent-child communication that is accessible to the child, and parental education regarding developmental norms for deaf children. These three areas are notably interwoven and need to be approached as a whole when working with the family of the deaf child. For the parents of a deaf child, as for any child, there can be no doubt that the child relies on the relationship with the primary caregiver for the formation of his or her perspectives on what the world is like. Although this is a new area of inquiry and a departure from the actual study, it can not be denied that deaf children need to interact with their primary caregiver (and others) in such a way as to be able to form secure infant-parent relationships for future success in interpersonal relationships and socio-emotional functioning (Maher, 1989).

It is important for parents of deaf children to realize that the deaf child does not have access to the parent, and the world, as others might. The deaf child is DEAF, and as
such communication through auditory means is inaccessible to the child. Sign Language must be used with deaf children for successful communication to be achieved. Through research conducted by Evans (1975) it was found that 37% of deaf children were unable to understand experiences that their hearing parents attempted to explain. Without access to a communication medium which can facilitate discussion, explanation, and interpretation of the interactions and the perspectives of others, the deaf child is missing a fundamental component for the development of moral reasoning.

Finally, in this proposed process of early intervention, appropriate developmental norms for deaf children must be addressed with the primary care-giver. As discussed earlier, many studies have indicated that deaf children often have delays in cognitive development for concrete-operational concepts and are also behind their hearing peers in the areas of symbolic manipulation, inferential reasoning and the formation of abstract ideas (Sharpe, 1985). While deaf children’s delays may not completely disappear in families with “educated” parents, the parental reaction and approach to their deaf child as a unique person will certainly influence developmental progress. Parents educated to potential areas of cognitive
and socio-emotional delays could take action to provide enhanced environments for their deaf child. Early intervention programs that include the above areas could educate parents and other family members so the deaf child could achieve a more analogous experience to his or her hearing counterparts.

1  The linkages between biculturalism and perspective-taking are assumed to be mediated by communication with others. In this study, levels of communication were not tested. The literature review delineates how communication with parents as well as peers influences perspective-taking (i.e., if there is no communication with others, it is impossible to know or take their perspective).

2  According to Cohen's (1992) power table, for a medium effect size at power of .80, the optimum number of participants needed for this study would be 64 per cell. However, for a large effect size at a power of .80 the optimal number of participants is 30.

3  While D scores can be assessed, this option was cost prohibitive as the participants' responses would need to be sent to the University of Minnesota for scoring. As mentioned in the design section, the standard and more widely accepted P scores were used as indices for levels of moral reasoning in the current study.

4  As reported in the results section since no significant relationship was found between level of perspective-taking and moral reasoning no path analysis was conducted. If both level of biculturalism and moral reasoning were found to be significantly correlated with perspective-taking, then hierarchical multiple regression would be used to assess if perspective-taking mediates between cultural identification and moral reasoning (i.e., a path analysis test).
APPENDIX A

Sample Items Defining Issues Test (DIT)

EXAMPLE:

FRANK AND THE CAR

Frank Jones has been thinking about buying a car. He is married, has two small children and earns an average income. The car he buys will be his family’s only car. It will be used mostly to get to work and drive around town, but sometimes for vacation trips also. In trying to decide what car to buy, Frank Jones realized that there were a lot of questions to consider. For instance, should he buy a larger used car or a smaller new car for about the same amount of money? Other questions occur to him.

We note that this is not really a social problem, but is will illustrate our instructions. After you have read the story an answer section will follow. First, in the answer section for each story, you will be asked to indicate your recommendation for what a person should do. If you tend to favor one action or another (even if you are not completely sure), indicate which one. If you do not favor either action, mark the circle by “can’t decide”.

Second, read each of the items numbered 1 to 12. Think of the issue that the item is raising. If that issue is
important in making a decision, one way or the other, then mark the circle by “great”. If that issue is not important or doesn’t make sense to you, mark “no”. If the issue is relevant but not critical, mark “much”, “some”, or “little”, depending on how much importance that issue has in your opinion. You may mark several items as “great” (or any other level of importance) -- there is no fixed number of items that must be marked at any one level.

Third, after you have made your marks along the left hand side of each of the 12 items, then at the bottom you will be asked to choose the item that is the most important consideration out of all the items printed there. Pick from among the items provided even if you think that none of the items are of “great” importance. Of the items that are presented there, pick one as the most important (relative to the others), then the second most important, third, and fourth most important.
SAMPLE ITEMS and SAMPLE ANSWERS:

FRANK AND THE CAR:
0 buy new car 0 can't decide 0 buy used car
(Great Much Some Little No)

GMMSN
0 0 0 0 X 1. Whether the car dealer was in the
     same block as where Frank lives.
X 0 0 0 0 2. Would a used car be more economical
     in the long run than a new car.
0 0 X 0 0 3. Whether the color was green, Frank's
     favorite color.
0 0 0 0 X 4. Whether the cubic inch displacement
     was at least 200.
X 0 0 0 0 5. Would a large, roomy car be better
     than a compact car.
0 0 0 0 X 6. Whether the front connibiles were
     differential.

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Note that in our sample responses, the first item was considered irrelevant; the second item was considered as a critical issue in making a decision; the third item was considered of only moderate importance; the fourth item was not clear to the person responding whether 200 was good or not, so it was marked "no"; the fifth item was also of critical importance; and the sixth item didn't make any sense, so it was marked "no".

Note that the most important item comes from one of the items marked on the far left hand side. In deciding between item #2 and #5, a person should re-read these items, then put one of them as the most important, and the other item as second, etc.
APPENDIX B

Sample Items Interpersonal Reactivity Index (IRI)

<table>
<thead>
<tr>
<th>Does NOT Describe me very well</th>
<th>Describes me very well</th>
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<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

1. I daydream and fantasize, with some regularity, about things that might happen to me.  
   1 2 3 4 5

2. I often have tender, concerned feelings for people less fortunate than me.  
   1 2 3 4 5

3. I sometimes find it difficult to see things from the "other guy's" point of view.  
   1 2 3 4 5

4. Sometimes I don't feel very sorry for other people when they are having problems.  
   1 2 3 4 5

5. I really get involved with the feelings of the characters in a novel.  
   1 2 3 4 5

6. In emergency situations, I feel apprehensive and ill-at ease.  
   1 2 3 4 5
APPENDIX C

Sample Items Deaf Identity Development Scale (DIDS)

<table>
<thead>
<tr>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Unsure</th>
<th>Somewhat Disagree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</table>

1. I enjoy both deaf and hearing cultures. 1 2 3 4 5
2. I don’t know how I feel about deaf people. 1 2 3 4 5
3. Deaf people should only use ASL. 1 2 3 4 5
4. Deafness is a terrible disability. 1 2 3 4 5
5. I support deaf and I value many hearing ways 1 2 3 4 5
6. Deaf people do not need hearing aids. 1 2 3 4 5
7. I feel sorry for deaf people who depend on sign language. 1 2 3 4 5
8. It’s hard for me to make friends. 1 2 3 4 5
9. American Sign Language and English are different languages of equal value. 1 2 3 4 5
10. There is no place for hearing people in the Deaf world. 1 2 3 4 5
11. I call myself “Deaf”. 1 2 3 4 5
12. I don’t like it when deaf people use sign language. 1 2 3 4 5
13. I don’t know whether I accept or reject the Deaf community. 1 2 3 4 5
14. I want to help hearing people understand
and respect Deaf culture.

15. I don't know whether to call myself "hearing-impaired" or deaf.

16. Only deaf people should teach deaf children.

17. Sometimes I love being deaf, and other times I hate it.

18. Deaf people should marry hearing people.

19. Hearing people don't help deaf people.

20. When I see deaf people use sign language, I walk away.

21. I can change between ASL and Sign English easily.

22. Neither deaf nor hearing people accept me.

23. I am satisfied with what the deaf world has to offer.

24. I am always alone.

25. I don't understand why Deaf people have their own culture.

26. I have both deaf and hearing friends.

27. Hearing people do not understand nor support Deaf ways.

28. When I am with hearing people, I remember that I am proud to be Deaf.
29. The focus of deaf education should be teaching deaf children to speak and lipread.  

30. I feel angry with hearing people.  

31. Deaf people need hearing aids to help them communicate normally.  

32. If one signs, it is best to speak while signing.  

33. I don’t know whether I’d rather fall in love with a deaf person or a hearing person.  

34. I seek out hearing friends who respect and value the Deaf community.  

35. I feel at home in the Deaf community.  

36. I don’t know whether to think of my deafness as something good or something bad.  

37. I feel comfortable with my child being either deaf or hearing.  

38. It is best for deaf people to communicate with speech and lipreading.  

39. Hearing people communicate better than deaf people.  

40. Teaching deaf children to speak is a
waste of time.

41. Sometimes I wish the Deaf community accepted me more, but other times I’m glad I’m not a full member.

42. I only socialize with hearing people.

43. It is wrong to speak while signing.

44. I have thought a lot about what it means to be a proud, strong, Deaf person.

45. I want to socialize with other deaf people, but often they embarrass me.

46. I would like to have an operation that would give me full hearing.

47. Although I have many hearing friends, I sometimes still feel angry with hearing people and hearing society.

48. Hearing counselors, teachers, and doctors who specialize in treating deaf people can give me the best advice.

49. I feel comfortable with both deaf and hearing people.

50. Only deaf people should run deaf schools.

51. I feel good about being deaf, but I involve myself with hearing people also.

52. I can’t trust hearing people.
53. Sign language should be based on English.
54. I call myself "hearing-impaired".
55. Learning to lipread is a waste of time.
56. I don't know what the best way to communicate is.
57. Deaf people should only socialize with other deaf people.
58. I do not feel comfortable with either hearing or deaf people.
59. It is important to find a cure for deafness.
60. My hearing friends will fight for deaf rights.
APPENDIX D

Demographic Information

Please indicate your answers by changing the 'X' to your answer.

1. I became auditorily deaf at age: X

   (Please remember all participants in this study must have become deaf prior to age 5.)

2. I have these additional disabilities (learning disabilities, physical handicaps, etc.):

3. My current age is: XX

4. My sex is (Male (M) or Female (F)): X

5. I would say my family members (or primary care-providers) sign

   Not at all-1  Poorly-2  OK-3  Good-4  Excellent-5

   Mother: X
   Father: X
   Sister(s): X,X,X
   Brother(s): X,X,X

4. My family members are deaf (D) OR hearing (H)?

   Mother: X
   Father: X
Sister(s):  X,X,X
Brother(s): X,X,X

5. Please give a brief history of you schooling focusing on the type of program you attended.

Please use the letters R, CR or M to indicate the type of school program you were in for each grade.

(R -- residential - deaf schools where you lived in the dorms, CR -- commuter-residential - deaf schools where you lived at home or off campus and M -- mainstream - hearing schools where you lived at home or off campus). If none of the above apply, please mark that year with an asterisk (*) and explain below.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preschool:</td>
<td>none</td>
</tr>
<tr>
<td>1st grade:</td>
<td>M</td>
</tr>
<tr>
<td>2nd grade:</td>
<td>M</td>
</tr>
<tr>
<td>3rd grade:</td>
<td>M</td>
</tr>
<tr>
<td>4th grade:</td>
<td>*</td>
</tr>
<tr>
<td>5th grade:</td>
<td>CR</td>
</tr>
<tr>
<td>6th grade:</td>
<td>CR</td>
</tr>
<tr>
<td>7th grade:</td>
<td>CR</td>
</tr>
<tr>
<td>8th grade:</td>
<td>CR</td>
</tr>
<tr>
<td>9th grade:</td>
<td>CR</td>
</tr>
<tr>
<td>10th grade:</td>
<td>CR</td>
</tr>
<tr>
<td>11th grade:</td>
<td>R</td>
</tr>
<tr>
<td>12th grade:</td>
<td>R</td>
</tr>
<tr>
<td>College:</td>
<td>3YRS M; 2YRS R</td>
</tr>
</tbody>
</table>

* tested so highly on academic tests, that I skipped the 4th grade. Sent directly to 5th grade at new school.
(This example would show: grades 1-3 mainstreamed; skipped 4th grade; grades 5-10 commuter-residential; grades 10-12 residential; college: prep-sophomore mainstreamed; college: junior-senior residential)

Please change the above answers to reflect your school history.
APPENDIX E

Tables
Table 1
Parallel Stages of Cognitive, Perspective-taking, Moral Development, and Acculturation

<table>
<thead>
<tr>
<th>Cognitive Stage</th>
<th>Perspective-taking Stage</th>
<th>Moral Stage</th>
<th>Cultural Identification Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preoperational</td>
<td>Stage 1 (subjectivity)</td>
<td>Stage 1 (heteronomy)</td>
<td>Culturally Hearing</td>
</tr>
<tr>
<td>Preoperational</td>
<td>There is an understanding of the subjectivity of persons but no realization that persons can consider each other as subject.</td>
<td>The physical consequences of an action and the dictates of authorities define right and wrong.</td>
<td>Defines deafness as medical pathology.</td>
</tr>
<tr>
<td>Concrete operations</td>
<td>Stage 2 (reciprocal)</td>
<td>Stage 2 (exchange)</td>
<td>Interacts primarily with hearing people.</td>
</tr>
<tr>
<td>Concrete operations</td>
<td>There is a sequential understanding that the other can view the self as a subject just as the self can view the other as subject.</td>
<td>Right is defined as serving one's own interests and desires, and cooperative interaction is based on terms of simple exchange.</td>
<td>Advocate speech and lip-reading.</td>
</tr>
<tr>
<td>Concrete operations</td>
<td></td>
<td></td>
<td>Marginal</td>
</tr>
<tr>
<td>Concrete operations</td>
<td></td>
<td></td>
<td>Identify with neither the Deaf nor Hearing cultures.</td>
</tr>
<tr>
<td>Concrete operations</td>
<td></td>
<td></td>
<td>Having no real cultural association, these individuals fall somewhere in-between.</td>
</tr>
</tbody>
</table>
### Beginning formal operations
There is development of the coordination of reciprocity with inversion; and propositional logic can be handled.

### Stage 3 (mutual perspectives)
It is realized that the self and the other can view each other as perspective-taking subjects (a generalized perspective).

### Stage 3 (expectations)
Emphasis is on good-person stereotypes and concern for approval.

### Immersion
Deafness is viewed as the proper way to be. Hearing people are seen as oppressive. Advocate use of ASL as the only means of communication.
Early basic formal operations

The hypothetico-deductive approach emerges, involving the abilities to develop possible relations among variables and to organize experimental analyses.

Consolidated basic formal operations

Operations are now completely exhaustive and systematic.

Stage 4 (social and conventional system)

There is a realization that each self can consider the shared point of view of the generalized other (the social system).

Stage 4 (social system and conscience)

Focus is on the maintenance of the social order by obeying the law and doing one's duty.

Stage 5 (symbolic interaction)

A social system perspective can be understood from a beyond-society point of view.

Stage 5 (prior rights and social contract)

Right is defined by mutual standards that have been agreed upon by the whole society.

Bicultural

Comfortable in both the Deaf and Hearing worlds. Value Deaf culture, but also appreciate and interact with members of Hearing culture.
Table 2

Means, Standard Deviations, and Ranges for the Three Variables Studied (i.e., Levels of Biculturalism, Moral Reasoning, and Perspective-taking)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Biculturalism</td>
<td>59.77</td>
<td>8.79</td>
<td>35-73</td>
<td>51</td>
</tr>
<tr>
<td>2. Perspective-taking</td>
<td>25.60</td>
<td>5.10</td>
<td>15-46</td>
<td>51</td>
</tr>
<tr>
<td>3. Moral Reasoning</td>
<td>8.9</td>
<td>5.43</td>
<td>0-22</td>
<td>51</td>
</tr>
</tbody>
</table>
Table 3
Correlations Between Biculturalism, Perspective-taking, Moral Reasoning, and Number of Years Spent in the Commuter Residential School Setting

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants (n=51)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Bi-culturalism</td>
<td>--</td>
<td>.30*</td>
<td>.23</td>
<td>.35*</td>
</tr>
<tr>
<td>2. Perspective-taking</td>
<td>--</td>
<td>.10</td>
<td>-.17</td>
<td></td>
</tr>
<tr>
<td>3. Moral Reasoning</td>
<td>--</td>
<td></td>
<td>-.01</td>
<td></td>
</tr>
<tr>
<td>4. # of Yrs. in CR School Setting</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .05
Model of Rationale:

Greater Level Of Biculturalism May Lead To Greater Levels Of Moral Reasoning

- Cultural Identification
  - Culturally Hearing
  - Culturally Marginal
  - Immersion
  - Bi-cultural

- Communication
  - Late identification/Misdiagnosis of deafness
  - Limited knowledge of language use
  - Isolation from meaningful interactions
  - Insufficient language ability to communicate thought processes with others

- Perspective-Taking
  - May be related to moral reasoning

- Moral Reasoning
  - Gained through interaction with others
Figure 2

School Setting Placement

Deaf Child

Residential
- Strong sense of Deaf culture
- Interaction with deaf peers
- Interaction with Deaf role models
- Very limited interaction with hearing culture
- Limited interaction with hearing peers
- Time with parents during school breaks

Commuter-Residential
- Strong sense of Deaf culture
- Interactions with deaf peers
- Interaction with hearing peers
- Interaction with Deaf role models
- Interaction with hearing culture
- Time with parents after school and during school breaks

Mainstream
- Strong sense of hearing culture
- Interactions with hearing peers
- May have interactions with deaf peers
- Interaction with hearing culture
- Time with parents after school and during school breaks
**Cultural Categorization**

### HEARING

<table>
<thead>
<tr>
<th>Culture A</th>
<th>Culture B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEAF</strong></td>
<td><strong>HEARING</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Culture B</strong></td>
</tr>
<tr>
<td><strong>Culturally Marginal</strong>— Identify with neither the Deaf nor Hearing cultures</td>
<td><strong>Culturally Hearing</strong>— View deafness as medical pathology — a disability to be cured</td>
</tr>
<tr>
<td>Having no real cultural association, these individuals fall somewhere in-between</td>
<td>Interact primarily with hearing people</td>
</tr>
<tr>
<td>Advocate use of ASL as the only means of communication</td>
<td>Advocate speech and lip-reading</td>
</tr>
<tr>
<td><strong>Culturally Deaf</strong>— Immersion</td>
<td><strong>Bi-Cultural</strong>— Comfortable in both the Deaf and Hearing worlds</td>
</tr>
<tr>
<td>Deafness as the proper way to be</td>
<td>Value Deaf culture, but also appreciate and interact with members of hearing culture</td>
</tr>
<tr>
<td>Hearing peoples are seen as oppressive</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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REFERENCES


