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**The Linguistic Repertoire of Deaf Cuers:
An Ethnographic Query on Practice**

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The Linguistic Repertoire of Deaf Cuers: An Ethnographic Query on Practice

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Taking an anthropological perspective, this dissertation focuses on a small segment of the American deaf community that uses Cued Speech by examining the nature of the cuers' linguistic repertoire.

Multimodality is at issue for this dissertation. It can affect the ways of speaking or more appropriately, ways of communicating (specifically, signing or cueing). Speech and Cued Speech rely on different modalities by using different sets of articulators. Hearing adults do not learn Cued Speech the same way deaf children do. English-speaking, hearing adult learners can base their articulation of Cued Speech on existing knowledge of their spoken language. However, because deaf children do not have natural access to spoken language phonology aurally, they tend to learn Cued Speech communicatively through day-to-day interactions with family members and deaf cueing peers. I am interested in examining the construct of cuers' linguistic repertoire. Which parts of their linguistic repertoire model after signed languages? Which parts of their linguistic repertoire model after spoken languages? Cuers' phonological, syntactical and lexical

repertoire largely depends on several factors including social class, geography, and the repertoire of hearing cuers whom they interacted with on a daily basis. For most deaf cuers, hearing cuers including parents, transliterators and educators serve as a model for the English language. Hearing cuers play a role as unwitting gatekeepers for the maintenance of ‘proper’ cueing among deaf users.

For this dissertation, I seek to study the effects of modality on how cuers manage their linguistic repertoire. The statement of the problem is this: Cued Speech is visual and made with the hands like ASL but is ultimately a code for the English language. The research questions to be examined in this dissertation include how cuers adapt an invented system for their purposes, what adjustments they make to Cued Speech, how Cued Speech interacts with gesture, and what language play in Cued Speech looks like.

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Chapter 1: Introduction

Taking an anthropological perspective, this dissertation focuses on a small segment of the American deaf community that uses Cued Speech. In this chapter, I briefly define what Cued Speech is, explain my first exposure to it, and discuss previous studies on Cued Speech. This chapter also examines how the deaf community at-large regards Cued Speech. Herein I provide ethnographic context surrounding cuers based on my fieldwork at cueing summer camps. I also outline the research methodology that I have adopted. The last part of this chapter explains the organization of the dissertation.

1.1 Cued Speech Defined

Developed in 1966 by Orin Cornett, Cued Speech is a system of articulation incorporating the use of various handshapes to represent consonants and using specific locations around the lower face to represent vowels. Handshape and location combine to form a visual representation of spoken language phonology. The term *cued language* refers to any language expressed via this system. As of 2006, Cued Speech has been adapted for 60 languages and dialects around the world (e.g., cued French, cued Spanish, cued Hebrew, etc.). For English, Cued Speech employs 8 handshapes and 4 locations.

Each handshape represents a certain number of consonants. In spoken languages, many words are formed using similar, if not identical, mouth shapes and patterns. For example, ‘mom’ and ‘pop’ look similar on the mouth. Also, words like *met*, *bet*, *pet*, *mitt*,

bit, pit, mutt, but, put, meet, meant, mint, pit, mean, and bin are all visually the same (Cornett 1992). In the same vein, the three phrases, 1) *I Love You*; 2) *All Of You* and 3) *Elephant Shoe* all look alike from the perspective of a deaf lip-reader. ‘French’ cannot be visually distinguished from ‘Fresh’. Thus for a deaf individual attempting to interact or follow a spoken conversation, lipreading often leads to misunderstanding. For this reason, Cornett systematically assigned similar looking consonants to different handshape groups to help distinguish visually ambiguous phonemes. For example, the phonemes /m/, /b/, and /p/ are assigned to different handshapes. He followed the same process for assigning specific vowels (e.g., /ε/ as in *bet* and /I/ as in *bit*). Therefore, each handshape represents groups of consonants that are visually different on the mouth. This system, in other words, disambiguates spoken words that are otherwise indistinguishable visually.

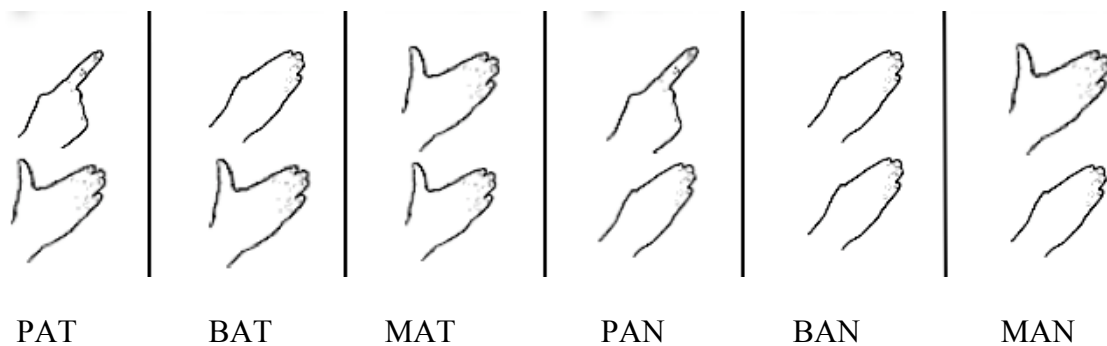


Figure 1. Handshapes for initial and final consonant in various cued forms.

The top handshape on each column above represents the initial consonant sound for each word whereas the lower handshape on each column represents the final consonant for each word. *Pat, bat, mat, pan, ban* and *man* are all hard to distinguish from

the perspective of a lipreader. However the handshapes as illustrated above distinguish the different words.

CUED SPEECH FOR AMERICAN ENGLISH

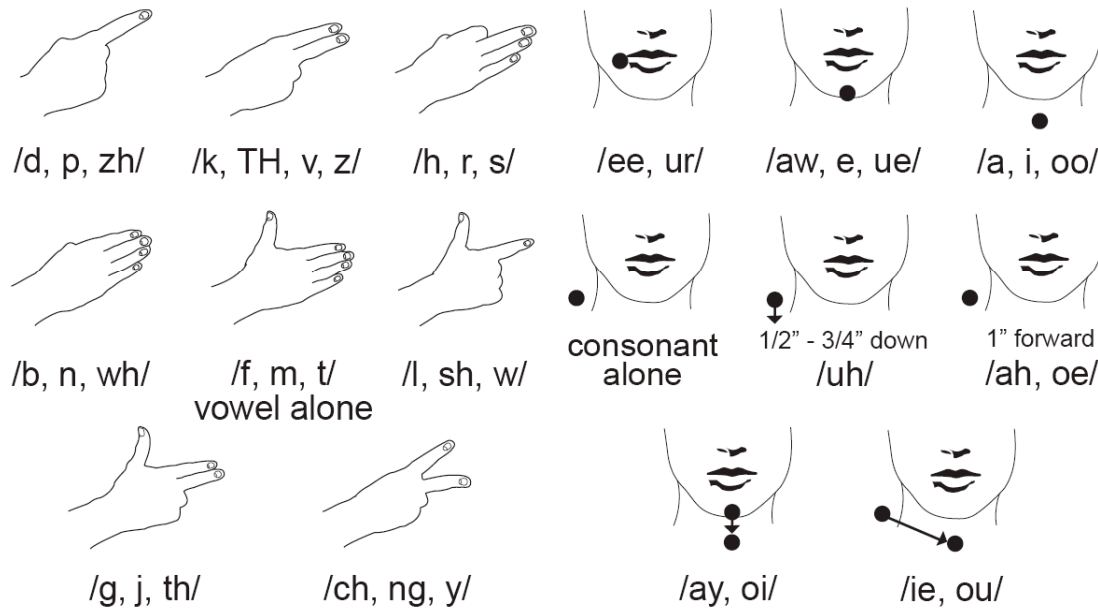


Figure 2. Chart of handshapes and locations in Cued Speech. (Printed with permission from the National Cued Speech Association, NCSA.)

Cues follow the phonemic representation of words, not their written spelling.

Hear, here, cheer, and *tier* all have the same vowel and and the same final consonant /r/.

While the onsets of those words have different handshapes, the final segments follow the same movement pattern. Also, similarly spelled words with different vowel phonemes, such as *tough, though, cough, through,* and *bough,* have different locations and handshapes. Cued Speech handshapes work in conjunction with four locations around the

face: throat, chin, side of the face, and a non-contact area approximately three inches away from the side of the mouth. Each location represents certain vowels. On the cheek are the vowel sounds *ee* (i.e., *meet*) and *ur* (i.e., *fur*), while the throat has the three vowel sounds *a* (i.e., *bat*), *oo* (i.e., *foot*) and *i* (e.g., *pit*). The chin represents *ue* (i.e., *flu* and *blue*), short *e* (i.e., *led*), or *aw* (i.e., *saw*), and the non-contact area has *ah* (i.e., *father*), *uh* (i.e., *but*) or *oe* (i.e., *note*).

1.1.1 Previous Studies of Cued Speech

Research on Cued Speech is minimal, largely focused on the effects of Cued Speech on speech-reading and speech production in deaf children (Nicholls and Ling 1982; Neef and Iwata 1985; Wilson-Favors 1987; Stewart and Lee 1987; Ling 1986). Another set of studies looked at the effects of Cued Speech on literacy in deaf children (Wandel 1989; Laybaert 2000; Laybaert and Lechat, 2001). These studies indicate that native deaf cuers typically develop reading skills comparable to those of hearing peers because they have developed internal phonemic awareness and language-processing skills. They are able to identify and spontaneously generate rhyming pairs—an indicator of spoken language awareness and ability (Wendal 1989; Peterson 1991).

However, many who see the term “Cued Speech” still believe either that speech is a required component of Cued Speech or that the purpose of the system is to improve speech skills. This belief stems in part from historical factors that make this linking of Cued Speech to “speech skills” a negative association. Historically deaf people were denied access to ASL and were educated orally. Many deaf children who were raised

with this method failed to acquire language. Cued Speech, which makes visual feedback possible, can be used in speech therapy situations. However, Cued Speech is primarily used as a tool for communication with the idea that it provides access to the language foundation needed for attaining literacy (Cornett 2001).

There is little research providing a scientific study of cuers' social interactions and their use of language, including language play. Only recently has the first linguistic analysis of Cued Speech been published (Fleetwood and Metzger 1998) but nothing in their work is sociolinguistic in nature. One masters thesis examined how bilingualism is practiced at a school that incorporates ASL and cued speech in the curriculum (Dukes 2006). Another paper looks at ASL and cued English codeswitching (Hauser 2000). It is my aim here to describe some of the ways Cued Speech is used in interaction and examine how it compares and contrasts with ASL and spoken English.

1.2 History of Linguistic Oppression in the Deaf Community

To place the issues surrounding people who use Cued Speech in further context, I would like to focus for a moment on the historical dimensions behind this project. Minority language communities often struggle to maintain and protect their language while contending with language policies created and enforced by a dominant language group (Fishman 1977). Depending on the social climate of a dominant group, language policies can either threaten or support a minority language community. Through time, language ideologies (Kroskrity 2000) are negotiated at different levels and are constructed and re-constructed (Blackledge 2000). The examination of power and

identity among both minority and dominant language groups is a prerequisite to understanding their respective language ideologies (Woolard 1998; Gumperz & Cook-Gumperz 1982).

Beginning in the late 19th century, deaf people have been systematically denied access to visually accessible, natural language due to policies in educational institutions. These policies stemmed from ideological attachments to speech as being the only natural modality for language (e.g., Bell 1883). This, in turn, has led many ASL users in the deaf community at-large to feel that deaf people who grow up with only speech (and Cued Speech) are people who are socially and linguistically disenfranchised, hence ASL users' resistance to being linguistically colonized by hearing speakers.

Throughout most of the nineteenth century in America, deaf education was what today's deaf community would consider the educational ideal. For example, Yale divinity scholars of the time held positive views of sign language (Baynton 1996). The reason was simple: they saw sign language as pure and believed it was close to a divine or original language. In fact, these scholars observed that the syntactic structure of ASL was comparable to Latin and Greek (Baynton 1996). Academia at the time held Latin and Greek in high regard, seeing the two languages as pure, unlike the 'fragmented' Romance languages. Since Christian doctrines posit that humans began as flawless beings (e.g., Adam and Eve) and worsened overtime, the divinity scholars' theory held that a purer language made for a closer relationship between man and God (Baynton 1996).

During the early nineteenth century, sign language was prevalent among the deaf population. At residential schools for the deaf across the country, over 40 percent of the

teachers were deaf (Baynton 1996). Despite what could be perceived as a golden age in deaf education, a hindrance was imposed by two of the most revered minds of the time: Charles Darwin and Alexander Graham Bell (Baynton 1996). Darwin proposed that mankind started as primates and was actually evolving, thus contradicting Christian doctrine that mankind was created by God in its present form. Darwin's theory of evolution was largely misinterpreted by the public. For example, people began to see sign language as a gestural language used by beasts; it was viewed as animalistic and backward (Baynton 1996).

From Darwin's theories emerged a politics of sexuality adopted by the medical establishment and concerned with "the art of determining good marriages, of inducing the desired fertilities, and of insuring health and longevity of children" (Foucault 1978). During the late 19th century, medical practices emphasized normality rather than health (Foucault, 1970). Professionals experimented with "curing" deaf people by pouring liquids in the ear and administered other physically painful and harmful "treatments" including fracturing the skull and inserting needles into the ear (Lane, et al. 1996).

Also during that time Alexander Graham Bell headed the Eugenics section of the American Breeders Association, later called the American Genetics Association (Lane 1993b; 1995). Despite the fact that Bell himself used signed language with his deaf mother and deaf wife, the Association promoted a world-wide movement against signed languages (Baynton 1996). Bell claimed that signed languages were responsible for the congregation of deaf people, causing them to marry each other and ultimately create a new variety of the human race (Lane, et al. 1996). He endorsed the idea of having each

deaf child raised and taught with hearing children to prevent further deaf congregation (Baynton 1996). This assimilationist approach was purposefully aimed toward cultural and linguistic genocide, but signed languages and the deaf community managed to survive.

During this period, however, many fell victim to the hearing-imposed, non-signing, speech-only approach in the hope of purifying the human race. Such imposition accords with Foucault's notions of anatomo-politics and bio-politics as well as politics of sexuality (Foucault 1978). Anatomo-politics involves fixing deafness by precluding deaf individuals from using sign language and imposing rigorous speech therapy. Examples of bio-politics and politics of sexuality include sterilization of 17,000 deaf individuals under Hitler's Nazi Germany (Lane, et al. 1996; Biesold, 1995), and the purposeful segregation of deaf children to prevent deaf marriages.

Since the late 19th century in the United States, Deaf people have fought a long ideological battle with people wishing to pathologize them and eliminate their signed language. Some of these people directly or indirectly supported the eugenics movement. For example, non-signers in positions of power have, for a very long time, developed policies that determine how deaf children are forced to communicate. These policies often deny deaf children the use of ASL. One example is the implementation of oralism--a philosophy whose premise was to make deaf children and adults function as hearing individuals. 'Passing' as hearing dampened the lives of many deaf individuals. This philosophy, which turned into a movement, became widespread worldwide during the late 19th century, in the aftermath of the Second International Congress on Education

of the Deaf in Milan, Italy in 1880. It was at this conference that educators convened and voted on a 'language' policy which ordained that the education of deaf children should be centered around speech only. The speech-only approach proved to be daunting for many deaf people. Deaf people who learned ASL later in life often state that they feel emancipated from the speech-only approach used in their daily lives.

After World War II, the Deaf working class developed strong social cohesiveness across the nation by creating physical spaces that were Deaf-owned and -managed: that is, Deaf clubs. Today, access to technology, among other things, has resulted in an increased use of shared ephemeral spaces. As rhetoric in the U.S. encourages acceptance of other aspects of human diversity, Deaf people continue to struggle to defend their culture and identity (Padden and Humphries 2005).

1.2.1 The American Deaf Community

The past 30 years show that policy on the training and education of American deaf children has never been truly static: residential school enrollments continue to dwindle, deaf children are being assimilated into public schools and parents of deaf children are being encouraged to provide their children with cochlear implants, surgically inserted electronic devices that enable hearing to varying degrees (Thoutenhoofd 2000; Ramsey 1997). Policies, both language and social, developed and enforced by hearing educators have often been at odds with the agenda and expectations of the American deaf community (Lane, et al.1996).

Residential schools for deaf children across the country helped to shape Deaf identity by bringing deaf people together, allowing collective cultural and linguistic definition as well as united resistance and struggle (Padden and Humphries 2005). Deaf children have historically been clustered together by design. The formation of the American Deaf community is attributed in great part to schools for the deaf. Children were placed together; consequently they shared a common language and experiences. When they left high school, they became members of the larger deaf community outside the school.

The advent of mainstreaming deaf children in public schools in the United States was a result of a 1977 federal law mandating that deaf children have the right to the ‘least restrictive environment’ (Ramsey 1997). The educational environment of residential schools was considered ‘restrictive’ under that law because students were ‘devoid’ of access to the hearing world. Thus parents placed their deaf child in the public school closest to home, with interpreting services provided (Ramsey 1997). This law and the philosophy of oralism were both, in part, reactions to the belief that the deaf community isolated themselves from the larger society (Fjord 1996). This viewpoint resulted in the diaspora of deaf children across the country. In this type of educational situation, deaf mainstreamed school children lacked access to a sign language model and thus communicative interactions with their hearing peers often resulted in failure (Keating and Mirus 2003). Furthermore, some schools disallowed social contact among deaf children during lunch, breaks, and class time (pc. Coco 2001). The intention was to ‘encourage’ each deaf child to learn from and assimilate into the community of hearing children, thus

ultimately disrupting the formation and maintenance of the deaf community. Because this practice continues today, deaf children who are mainstreamed in public schools do not lack access to the hearing world. Instead, they lack access to the deaf world (Keating and Mirus 2003).

Current advances in technology and medicine allow cochlear implants to be implanted in many deaf children. Ninety percent of deaf children are born to hearing parents who seek advice not from the deaf community but from medical professionals who endorse the medicalization of deaf children (Lane, et al. 1996). This has led to a dramatic increase of these implants since their inception in the 1980's. Stigmas often develop against those who have received cochlear implants because they are not taught signed language and are likely to be isolated from other deaf children (see Goffman 1963 for a general discussion of stigma within a community). While perceived as a medical advancement, this relatively new technology has resulted in endangerment of signed language. It can be assumed that the number of signed language users is likely to decline in the next generation. In addition, recent mappings of deaf genes discovered through genetic research (see Mitchem, et al. 2002) have increased chances of sign language endangerment in the deaf community.

Language contact and language policies created by hearing professionals teaching literacy skills in educational institutions have, in some countries, resulted in a sign system that orders signs according to the syntactic rules of a spoken language. Examples of this kind of system include Signing Exact English (SEE) or Signed Swedish. Such systems have been described as difficult for deaf children to understand because they fail to take

advantage of spatial resources available to languages in the visual-manual modality (Supalla, 1990).

1.2.2 Rhetoric and Resistance

According to Jankowski (1997), some deaf people used the rhetoric of “crucifixion” (in the sense of Foucault 1977) to represent linguistic oppression imposed by hearing people who support the eradication of sign languages. Jankowski referred to Foucault’s idea that the “political field” is the body and that “(p)ower relations have an immediate hold on the body; they invest it, mark it, train it, torture it, force it to carry out tasks, to perform ceremonies, to emit signs.” Again this is an example of what Foucault would call ‘anatomy-politics’: Hearing people, particularly medical professionals and speech pathologists, who impose their glotti-centric views, endorsing an ideology which supports the idea of ‘crucifying’ signers to stop language articulated from the arms and hands. This act is regarded as communication abuse (Mather in Jankowski 1997). It is comparable to teaching a hearing English speaker spoken Japanese through a sound-proof window---a process where one is not able to hear or visually distinguish the foundation and most critical part of spoken language -- phonemes. The dominant social ideology holds that the deaf community is malleable (Lane et al. 1996). This malleability leads to continued subjugation from the dominant party – constantly requiring from deaf individuals speech production and lip-reading, despite their inability to hear, and preventing them access to signed language despite its being the defining component of the deaf social identity.

Deaf people, especially children, have been and continue to be forcibly shaped into the image of a hearing person by promoting the acquisition of English speech-based ideology (Lane et al. 1996; Jankowski 1997). This imposition on deaf people can be regarded as the ‘normalizing’ process where the bodies are socially regulated (Foucault 1980). In short, the struggle between perceived normalcy by the dominant ideology and the actual normalcy promoted within the deaf community has resulted in a perpetual ideological war between the two establishments (Lane 1992).

Davis (1995) argues that Stalin’s definition of nationality closely fits the deaf community. Nationality as defined by Joseph Stalin includes: 1) common language, 2) a stable community, 3) a territory, 4) economic cohesion, and 5) a collective psychology and character (in Davis 1995). “Stalin stresses that nationality should not be thought of as something tribal or racial in nature, as something essentialist, but as constructed through history” (in Davis 1995). The deaf community has a common language, a stable community, and a collective psychology and character. To the larger English-speaking/hearing society, deaf people’s construction of their own nationality does not correspond with preconceived notions or assumptions on nationality as a general rule. As a result, the American Deaf community is constantly pressured by the dominant speaking society (Lane 1992; Ladd 2003).

As previously asserted, the social identity of deaf people exists primarily through signed languages (see Gumperz and Cook-Gumperz 1982). According to Gumperz and Cook-Gumperz, an ethnic group that has a common communicative history will have preconceived negotiation strategies that will be shared and transmitted. Considering the

survival of ASL in the past 100 years under the oralist regime, the language preservation mechanism used by deaf communities aligns well with Gumperz and Cook-Gumperz (1982) . For example, in efforts to document and preserve ASL, The National Association of the Deaf beginning in 1913, recorded signers on film.

With ASL as the third most used language in the United States (Padden, in Van Cleve 1987), one could question whether or not ASL is presently an endangered language. Minority languages in the world are in a rapid decline; 90 percent of the languages worldwide are in an endangered state (Hale, et al. 1992). The primary factor threatening most languages is the fact that speakers are replacing their native language with a language that is linguistically dominant (Grenoble and Whaley 1998). Due to the modality differences in signed and spoken languages, deaf people are not likely to abandon ASL for a spoken language. What then would give ASL and other signed languages an endangered status? One possibility is the employing of subliminal genocide (or 'ethnicide' (see Lane et al. 1996)) through use of a non-Deaf language ideology, i.e. disrupting the intergenerational cultural continuity (in the sense of Fishman 1988) by integrating deaf children into the mainstream, (via oralism and cochlear implantation) and away from ASL.

Like other language communities (e.g., Basque), the Deaf community has politicized ASL. Research about ASL is used as a driving force to maintain its status and respect. And, the deaf community downplays the encroachment of invented communication systems with tactics like creating parodies. For example, one might mimic Signing Exact English by appearing victimized and unintelligent and signing non-

grammatical questions like, “HOW IS YOU?” One might respond, “I IS THE FINE.” Because the response is grammatically incorrect in ASL and English, the response is often perceived as funny. Many hearing parents and professionals have the mistaken assumption that SEE provides structured access to English and this parody, though exaggerated at times, highlights the misassumption.

1.2.3 Linguistic Oppression Within the Deaf Community

Returning to the issues surrounding users of Cued Speech, there seems to be linguistic oppression even within the deaf community. Research with regard to the deaf community's history and use of ASL is abundant and primarily white-oriented (e.g., Lane, Hoffmeister and Bahan 1996; Padden and Humpheries 1988). Given the diversity within the deaf community, it is surprising how little research has been done on groups marginalized within the community. The relative lack of scholarly inquiry into, for example, deaf-blind people (Collins and Petronio 1998; Quinto-Pozos 2002), and oral deaf people, and, may stem, in part from the fact that the Deaf Studies field is quite new and that ASL was recognized as a language just fifty years ago, but may also be because of politically motivated discursive choices that have put the deaf community in opposition to "disabled" people. This distinction has had considerable benefit in terms of increased recognition and understanding of deaf people as a cultural entity. For deaf people who use ASL, this has helped reduce the perceived stigma by outsiders to the community, e.g., people who are not deaf. This collective construct of deaf identity has been and, in some cases continues to be, incompatible with different communication

systems, and has led to the marginalization of certain groups. For example, segregation of deaf Black children in the U.S resulted in the creation of Black American Sign Language (Maxwell and Smith-Todd 1986; Aramburo 1989; McCaskill 1993). Cuers are another example: their communication system is so different that it has led to their marginalization within the American deaf community. Those who used Black ASL at segregated schools in the past or those who currently Cued Speech don't share common experiences with those who use standard ASL, thus making it harder to talk with one another.

Most people have never seen Cued Speech. They typically expect Cued Speech to be mechanical and assume that every movement would have to be carefully coordinated and thought out. Cued Speech has not been accepted by the Deaf ASL community or the non-signing, speech-only advocates. Based on my own experience as a native ethnographer, I observe that many ASL users generally classify Cued Speech as oral because English is visually articulated at the mouth whereas the oral-only advocates view Cued Speech as a “crutch” similar to ASL that inhibits the learning of speech. Cued Speech has been and continues to this day to be marginalized by both groups. This helps to explain why Cued Speech has been slow in gaining wide acceptance in the past 40 years.



Figure 3. Political cartoon by McGregor (1999) (printed with permission)

Figure 3, a political cartoon by Tony McGregor, (1999), a nationally known Deaf artist, depicts a dog-and-pony show with Dr. Cornett as the evil ringmaster who invented Cued Speech and imposed his invention on deaf children. McGregor, following the ideology dominant among users of ASL, downplays the encroachment of invented communication systems.

Another example was a campus-wide televised show similar in concept to Saturday Night Live, produced by students at Gallaudet University. It showed a cueing character acting as a news anchorman (Deaf Moonlight Show, 1995). Subtitles scroll from right to left as the anchorman sits behind a platform. A sign next to him reads “Cued Speech News.” He begins gibberish Cued Speech that is grossly erroneous in terms of

handshape and movement. Using slap-stick humor to mock Cued Speech, the anchorman feigns pain as he clumsily pokes himself on the face while cueing. The anchorman presents himself as socially inept; his presence and costume resembles that of a geek and his mouth movements are exaggerated.

1.2.4 Diverging Perspectives by Cuers

In addition, there has been friction between deaf cuers who see Cued Speech as a tool for communication, and parents and teachers who see Cued Speech as a tool for acquiring a spoken language or for improving speech. At issue is whether Cued Speech is language-centered or speech-centered. The National Cued Speech Association (NCSA) takes the speech-centered focus and does not consider ‘Cued Speech’ a misnomer. From interviews I have conducted with a number of adult cuers who have cued since age three, I’ve determined that deaf Cued Speech users show a tendency to congregate with other cuers and use Cued Speech and after high school. These cuers believe that Cued Speech is a tool used for expressing language, or at least a comfortable mode of communication, rather than merely a tool to improve speechreading and speech production. It appears that structural changes in Cued Speech (i.e., “nativization”) have been accompanied by changes in the attitude of the children raised with this method.

Some deaf cuers, in interviews, say that the NCSA is dominated by hearing people who generally see Cued Speech as a tool to enhance lip-reading and speech skills and to help with aural training which they claim ultimately increases literacy rates among deaf children. The association resists claims made by Fleetwood and Metzger (see

below), yet the NCSA endorses ASL and believes that Cued Speech should co-exist with ASL.

In 1998, the Deaf Leadership Council of the NCSA, made up of Deaf native cuers of English who were also fluent signers of ASL, made a political statement and left the NCSA Board of Directors, claiming that it was time for that organization and the world at large to understand and recognize cued languages as visual languages rather than focusing on Cued Speech as it relates to speech and hearing. Since that time, the emergence of the Cued Language Network of America (CLNA) and the Cued Language International Center (CLIC) take the position that deaf and hard of hearing children have the right to visually accessible languages, including cueing the language of the home for those with hearing parents (Metzger 2002).

I recall one cuer's initial response to Fleetwood and Metzger's 1998 book. Upon its release, he read the book thoroughly and he immediately endorsed the book. He showed great enthusiasm for the new terms: 'cued language' and 'cued English.' "It makes perfect sense," the cuer said. To this day, he refers to Cued Speech as cued English.

It is not clear at this point how the ASL community regards the term *cued English* but it is interesting to see how cuers sometimes work toward demystifying Cued Speech as one way to reduce the stigma of using it.

1.3 Cuers and the Construct of Self

Now I will return to cuers and begin to explore some themes concerning them: identity, spaces and enculturation. How does Cued Speech as a medium for communication in English affect cuers' identity as deaf individuals both in relation to signers who use ASL and in relation to hearing people who use speech for English? Kroskrity (2000) defines "identity" as follows:

Identity is defined as the linguistic construction of membership in one or more social groups or categories. Though other, non-linguistic criteria may also be significant, language and communication often provide important and sometimes crucial criteria by which members both define their group and are defined by others. Identities may be linguistically constructed both through the use of particular languages and linguistic forms (e.g., Standard English, Arizona Tewa) associated with specific national, ethnic or other identities and through the use of communicative practices (e.g., greeting formulae, maintenance of mutual gaze, regulation of participation) that are indexed, through members' normative use, to their group. Language and communication are critical aspects of production of a wide variety of identities expressed at many levels of social organization.

While identity formation among cuers is not the central focus of this dissertation, it is hard to avoid issues surrounding cuers' identity and for this reason, I will briefly relate observations I have collected during fieldwork. In looking at how cuers' experiences with Cued Speech have shaped their worldviews, one observation comes from a comment I received from an ASL researcher, paraphrased below.

I met a group of children who use Cued Speech. I asked them if they were deaf or hearing. Interestingly, they have identified themselves as being both deaf and hearing---I was baffled (Mather p.c. 2004).

These children were mainstreamed in an all-hearing public school that had a Cued Speech program. In the classrooms, spoken English/Cued Speech transliterators were present to relay speech to Cued Speech and vice versa--word for word, verbatim. These children, when they responded that they were both deaf and hearing, obviously understood that they were physically deaf. Their identification of themselves as "hearing" was unusual because it implied that their access to English via Cued Speech had afforded them an identity like that of hearing persons.

The remark by Mather is not unique. Another example of this pattern in identity formation is in the case of hearing children of deaf parents. A short documentary film titled, 'Calvin's World,' takes up this theme. The film follows an 8 year-old hearing child who comes from an all-deaf family. His maternal and paternal grandparents are deaf, as well as his aunts, uncles, and cousins. His younger brother is also deaf. The filmmaker,

while the camera is recording, speaks to him and asks Calvin, “Are you hearing or deaf?” His response was that he was both deaf and hearing. This raises the question of whether or not a child who can hear can attain a cultural and linguistic identity that deaf people possess.

With regard to young deaf cuers, their description of themselves may well be accurate. They are physiologically deaf; however, in terms of identity, because of their daily access to English, they see themselves as hearing. Enculturation among cuers might be seen through their social development and interaction; how their reality is constructed and how realities and relationships are built through narrative, as well as how their belief system is negotiated (Goffman 1974). Do cuers conform to hearing ways of socialization in the sense of Schieffelin and Ochs (1986) given that both cuers and hearing people use English in spite of the different modalities? As Kroskrity points out above, “Identities may be linguistically constructed both through the use of particular languages and linguistic forms...and through use of communicative practices...” So with respect to this definition, it is clear that the examination of cuers’ linguistic repertoire is a prerequisite to the study of their identity formation.

Cued Speech, used by a small number of deaf individuals within the larger deaf community of the United States, is used in some school programs in various U.S. states including Texas, Louisiana, North Carolina, Virginia and Maryland. From the introduction of Cued Speech to a small population of American deaf children 41 years ago, there is now a first generation of Cued Speech users who are in their mid-twenties and early thirties. Over the years, cuers have apparently become quite adept with their

native “tongue” and reached a level of communicative competence that includes language play. To date however, Cued Speech used in social interactions and how it contributes to the construct of their realities (Goffman 1974) has not been studied to any great extent.

There is no permanent social space for cuers. By no permanent space, I mean no centralized and self-governed place where local cuers gather on a frequent basis. However, ephemeral spaces for cuers are organized for 5 or 6 days a year. These ephemeral spaces appear in the form of summer camps and they are organized and held at different places across the country including Virginia, Maryland, Maine, Utah and North Carolina (see Breivik, J., Hualand, H. and Solvang P. 2002 re: transnational deaf social spaces). In that five to six day time frame, deaf and hearing adults and children, parents, professionals including teachers and transliterators, come together.

I have personally observed that Cued Speech camps are multifaceted in ways that offer various opportunities for deaf adult cuers, professionals who work with deaf children using Cued Speech, parents of deaf children, and signing friends of deaf cuers. The camps function primarily as a reunion opportunity thereby allowing professionals, parents, and deaf cuers to network among themselves. The Cued Speech camps are, for the most part, family oriented---it is a space for new faces and old faces alike to greet and learn from one another.

Classes that I observed at Cued Speech camps were primarily for hearing adults—parents, teachers, and those who wish to be Cued Speech transliterators. Cueing classes ranged from beginner to intermediate and advanced levels. One advanced class, for example, focused on improving Cued Speech comprehension. Teachers in the classes I

observed were all hearing. At some camps, there were classes for deaf individuals wishing to learn how to cue. At those classes, the teachers were always deaf.

Guest speakers are often invited to Cued Speech camps. These speakers are usually scholars who do research on Cued Speech. Parents and deaf adult cuers attend these talks to gain greater working knowledge about the intricate functions of Cued Speech; transliterators may attend for their professional development (and to gain their required Continuing Education Unit (CEU) points). Transliterators are usually present, as presenters voice for themselves. At times, at some camps, ASL interpreters are provided for some deaf signers.

Cued Speech books, games, t-shirts, videotapes/DVDs and other related materials are sold at Cued Speech camps. Cued Speech books include Cornett's (2001) book also affectionately known as the "Cued Speech Bible." There are videos available that are primarily Cued Speech instructional videos. There are posters with charts showing the various Cued Speech vowel placements and handshapes.

Cued Speech camps are not only for reuniting and networking. The camps also serve as a space for enculturation---especially among younger cuers from 6-18 years. For various reasons including the advent of new technologies (e.g., cochlear implants) and parents' expectations, an increasing number of deaf children at Cued Speech camps cannot cue proficiently. However, they depend on receptive cueing. These children have cochlear implants and speak for themselves while interacting with hearing parents and siblings. At camps, their inability to cue expressively complicates their communicative situation, especially among themselves and with deaf adult cuers. At one camp, a deaf

adult cuer had a role as a facilitator working with a group of seven cueing deaf children on a daily basis throughout the week. Two out of the seven could not cue expressively and one could cue but with much reluctance. The adult cuer consistently encouraged the group and especially those three children to cue.

1.3.1 Cued Speech in Practice

One important focus of this dissertation is the nature of cuers' linguistic repertoire. Which parts of their linguistic repertoire are modeled strongly after signed languages? Which parts of their linguistic repertoire are modeled after spoken languages? Cuers' phonological, syntactic and lexical repertoire largely depends on several factors, including social class, geography, and the repertoire of hearing cuers with whom they interact on a daily basis. In other words, the day-to-day social interaction for most deaf cuers is often with hearing cuers including parents, transliterators and educators who serve as models of English language usage.

One major reason for addressing these issues is that "the assumption that form exists simply to code meaning" or the "Saussurean dogma" (Nichols 1998:557) is increasingly subject to scrutiny. Most formal analysis of language has focused on the relationships between elements within a given linguistic system, with little attention to the world in which linguistic signs are produced (Duranti 1997:162). How people create meaning is now understood to include many properties of language, for example, gesture, intonation, and paralinguistic elements, as discussed earlier. The arbitrariness of the sign is not necessarily assumed (Greenberg 1961; Haiman 1983; Hopper and Thompson 1980;

Haspelmath 1998). Linguists have long argued that the form and meaning relationship was arbitrary. For example, the English word ‘why’ is ‘pourquoi’ in French and ‘porque’ in Spanish. Similarly, the ASL sign for *WHY* is made on the forehead whereas in British Sign Language (BSL), the sign for *WHY* is made with contact on the chest and in German Sign Language (Deutsche Gebärdensprache or DGS), the sign for *WHY* (or *WARUM*) is made in neutral space.

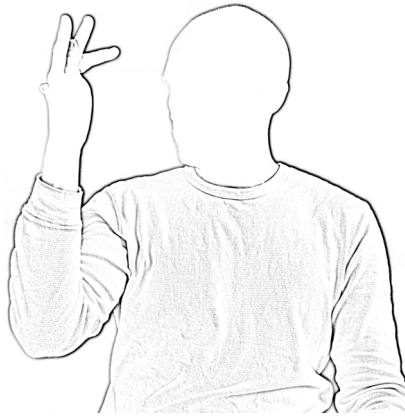


Figure 4. ASL sign for *WHY* (open 8 handshape, outward movement)

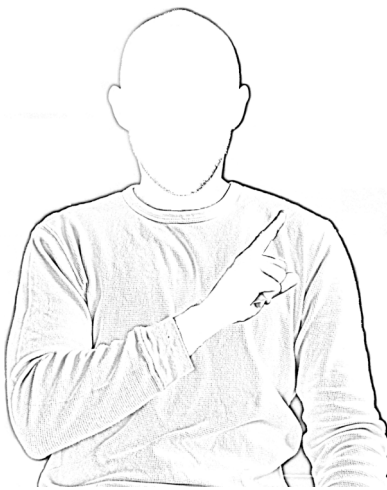


Figure 5. BSL sign for *WHY* (index handshape, to/fro trill movement)

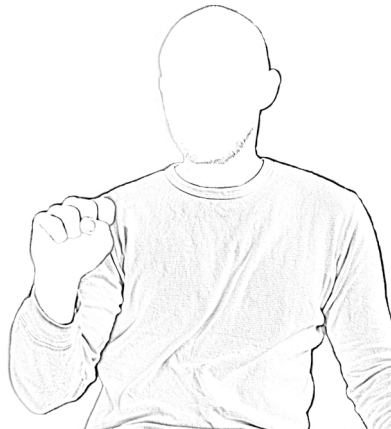


Figure 5. DGS sign for *WHY (WARUM)* (S handshape, side/side trill movement)

The relationship between the form of linguistic signs and the meaning they signify is taken to be a valuable locus of analysis in locating those properties that are universal in the world's languages. Signed languages have been important in this, given that they have, being visuo-gestural languages, challenged some fundamental assumptions about the arbitrariness of language. For example, the expression of verb agreement appears to be universal across signed languages in the sense that they all use signing space to convey person agreement (Aronoff, Meir, Padden and Sandler 2004; Rathmann and Mathur 2002).

Multimodality is also an important issue in this discussion. It can affect the ways of speaking or more appropriately, ways of communicating (or specifically signing or cueing). Speech and Cued Speech rely on different modalities by using two different sets of articulators. Hearing adults do not learn Cued Speech the same way deaf children do. English-speaking, hearing adult learners can base their Cued Speech articulation on existing knowledge of their spoken language. However, because deaf children do not

have natural access to spoken language phonology aurally, they tend to learn Cued Speech communicatively through day-to-day interactions with family members and deaf cueing peers. I am interested in examining the construct of cuers' linguistic repertoire. Which parts of their linguistic repertoire models after signed languages? Which parts of their linguistic repertoire models after spoken languages? Cuers' phonological, syntactical and lexical repertoire largely depends on several factors including social class, geography, and the repertoire of hearing cuers whom they interacted with on a daily basis. For most deaf cuers, hearing cuers including parents, transliterators and educators serve as a model to the English language. Hearing cuers play the role of unwitting gatekeepers for the maintenance of 'proper' cueing among deaf users.

1.3.2 Cued Speech in Relation to Nascent Signed Languages

The influence hearing cuers have over deaf cuers achieved by cross-modal linguistic modeling became an important entry point for my research, not only into issues of language politics, but also the social and political constraints on change in various forms, giving rise to particular possibilities and not others.

This theme has been explored with respect to nascent sign languages such as Nicaraguan Sign Language (Kegl, J. 1994), and Bedouin Sign Language (Sandler, et al. 2005), as well as Groce's well known study of Martha's Vineyard variety (Groce 1985). In earlier analyses, it seemed that heightened levels of stigma were correlated with the emergence of new signed languages among deaf people (Groce 1985).

In evaluating various arguments vis-à-vis stigma and language politics in relation to the emergence of a new linguistic code, I will give a brief overview of several studies mentioned above. These overviews can help look for possible correlation to people who use Cued Speech.

In the town of Chilmark on Martha's Vineyard, an island along the coast in Massachusetts, there is a high incidence deafness: 1 out of every 155 people in Chilmark were deaf. Researching local ethnohistory, Groce excavated memories of living people, and plumbed public documents including birth, death, marriage records, private letters, and old newspapers to build a picture of what life was like among deaf and hearing people on Martha's Vineyard (1985). Data driven solely from ethnohistory often does not do complete justice to its subject. Groce's portrayal of the people on the island seems exaggerated, especially when she emphasizes that there were utopian relationships between deaf and hearing people.

Interestingly, the Bedouin linguistic situation may well shed light on language use among the Vineyarders. Like Martha's Vineyard, the Bedouin, in Israel, has a high incidence of deafness. People on Martha's Vineyard and the Bedouin people are also similar in that there's less stigma among deaf people---this likely results from hearing people's familiarity with deaf people and not from the fact that hearing people sign well. It is my belief that the significant population of deaf people at both places led to a decreased sense of stigma since hearing people had become accustomed to the presence of deaf people. It is important to note - Bedouin Sign Language, it has been claimed, does not have phonology or verb agreement because of the relative youth of the language

(Aronoff et.al. 2004). There could be another factor. Who uses Bedouin Sign Language? If a large number of signers are hearing and already use a spoken language (Arabic), that could explain why Bedouin SL hasn't evolved as much as other signed languages.

In contrast, Nicaraguan SL which is even younger, has managed to develop both phonology and morphology comparable to that of older signed languages. The study of the emergence of a new community and language in post-revolutionary Nicaragua (circa 1979) (R.J. Senghas and Kegl 1994; Kegl and WcWhorter 1997; R.J. Senghas 1997, 2003; A. Senghas and Coppola 2001) showed that, once deaf children met each other, they began using gestures among themselves at school in spite of the oral-only communication policy enforced in the classrooms. Over time, their gestures became sophisticated and the second generation of deaf children grammaticized the high level use of gestures (Kegl 1994). The Nicaraguan deaf children's minimal or complete lack of access to the dominant spoken language—Spanish, resulted in their adjustment (Sacks 1990) to communicating visually among themselves. Visual resources emerge and expand when a community shares only that modality.

1.3.3 Specific Questions

For this dissertation, I seek to study the effects of modality on how cuers manage their linguistic repertoire. The problem is this: Cued Speech is visual and employs the hands like ASL but is ultimately a code for the English language. The research questions I will address in this dissertation are:

- 1) How do cuers adapt to an invented system? What adjustments, if any, do they make to Cued Speech?
- 2) How does Cued Speech interact with gesture?
- 3) What does language play in Cued Speech look like?

The study will contribute to a better understanding of what we know about creativity beyond language structure (Gumperz 1997; Goodwin 1981), gestures (McNeill 2000; Kendon 1982), and language play (Sherzer 1987, 2002; Bauman 1986).

Drawing on psycholinguistic research, I ask what types of articulatory adjustments cuers make in relation to the invented form as described in various texts. There is research on the ways in which signers may shift in the use of the joints as they become more fluent (Mirus, et. al. 2001) as well as research on the ways in which ASL has changed over time (Frishberg 1975). Essentially, this study asks if cuers diverge on different levels of articulation and whether the processes of Cued Speech divergence resemble the processes of well-formedness as seen in signed languages (e.g., Singleton, Morford and Goldin-Meadow 1993).

Interest in the study of gesture and how it interacts with language is growing (McNeil 2000; Kendon 2004; Kita 1993). There is a sizable body of research on how and when gestures co-occur with speech. And recently there has been an increased understanding of how gestures appear in signed languages. Liddell (2003), for one, challenged the long held belief that the use of gesture has no bearing on the linguistics of signed languages. One of his main arguments is that directional verbs incorporate a kind of iconic use of space that mimics functional aspects of gesture. An example he uses is

the ASL verb GIVE: when signed toward the addressee, it "points" toward the chest of the addressee, so that the sign is adjusted according to the height of the addressee. If the addressee is taller, the sign points higher; if the addressee is shorter, e.g. a child, the sign points lower. Liddell, among others, argues that the adjustment of the sign according to the height of the addressee is a deictic, gestural act that has been embedded in the sign.

The creative play of articulatory elements in signed languages, speech and Cued Speech allows for further examination of the role of modality in general. The methodology that I will use to analyze cuers' articulatory play is based on Sherzer's (1987) Discourse Centered Approach, where the emphasis is on the inter-relation between culture and language. For example, language play in ASL and other signed languages in the world includes a play on fingerspelling, known as the ABC Story, where stories are developed using the manual alphabet from A to Z.

Speech play includes rhymes, e.g., 'most'/'host.' When spoken, for instance, quoting Dorothy Parker, "I'd like to have a martini, two at the very most. After three, I am under the table and after four, I am under the host." Homophones (two words pronounced the same way but spelled differently and with different meanings)---e.g., 'son'/'sun' are another example of play on the level of articulation.

I will discuss in chapter 5 the implications these questions have for visual modalities. Ultimately, this research will contribute to Deaf Studies through a better understanding of the language situation of the American Deaf community which has relevance for other communities as well. In particular, questions on language maintenance will be addressed, e.g. what factors influence whether individuals continue

using Cued Speech after leaving school. The study will also address empirical questions regarding the role of culture and community. My research will suggest that deaf identity is constructed in ways similar to the construction of community, ethnic, and national identities and yet raises new questions, e.g., can one be deaf and hearing in a new type of community?

1.4 Linguistic Anthropological Framework

From an ethnographic standpoint, my experiences growing up, for the most part, are incongruent with those of many cuers. Studying the ‘other’ has positioned me as an anthropologist to be reflexive by examining the “me vs. them” dichotomy. In an attempt to show how my experiences compare and contrast with those of cuers, I will briefly describe my own experiences growing up, describe the experiences of the first cuer I met, and discuss my liminal outsider/insider position as an anthropologist doing fieldwork.

Growing up “mainstreamed” among hearing children in public schools and in “self-contained” classrooms where deaf children had a classroom to themselves with a signing teacher, I was exposed to Signed English along with other deaf children. At home, with family and friends, ASL was used. As young as 8 years old, I made many attempts to correct my parents’ grammar believing that they were using broken Signed English. They often reacted to my criticism by adapting to my way of signing. They did not know at the time that ASL was a language. Signed English as used by hearing teachers was the proper form and teachers knew best, I thought at the time. Later, I realized that was not true. I realized that ASL had aesthetics and nuances that Signed

English lacked. An activist at age 10, I wrote letters to the Texas Education Agency opposing the promotion of Signed English. I recall opposing initialized signs. One example I used was the sign for RED. In ASL, RED is produced with the index finger on the chin whereas in Signed English, the sign is initialized with the handshape ‘R’ with contact on the chin.

While I was growing up, deaf friends of my deaf parents and deaf brother acted as “extended” family members. My family and I were regulars at a deaf club on weekends. On an occasional weeknight, as many as 10 people would come to our house to socialize. Signing and being in the deaf community was a way of life---for me, there was not a sense of “other” about my experiences growing up.

Now I fast-forward to the fall semester of my first year in graduate school in Anthropology. At a coffeehouse, I met a young deaf man who used Cued Speech and ASL regularly. Prior to meeting him, I had never seen Cued Speech used by anyone nor did I have full understanding of how Cued Speech works. Throughout the evening, I learned about his history and experiences with Cued Speech. He told me that

My hearing mother found out I was deaf when I was 6 months old. I was taught orally and at age 8, I had a vocabulary of only 25 words. I was the classic example of oral failure. My mother, alarmed with my not picking up language, searched for other methods to best educate me. She first learned about Cued Speech from a friend who was using it with her daughter. Almost immediately my mother learned Cued Speech and

started using it with me. Eventually, I was placed at a school with a Cued Speech program and in short time, I picked up English language through Cued Speech. Six months into using Cued Speech on a regular basis, I started cueing ‘supercalifragilisticexpialidocious’---I’d cue this word incessantly.

This was his ‘first exposure to Cued Speech’ story. He related it to me with enthusiasm not only because I was very curious but because he also wanted me to realize that Cued Speech has a lot to offer. For example, he talked about how regional or foreign accents can be demonstrated via Cued Speech, how his relationship with his mother improved dramatically through Cued Speech. This was his attempt to clear up public misconceptions about Cued Speech. These revelations speak to the social situation of cuers vis-à-vis the “centered” signing deaf community.

When I first watched a multi-party conversation via Cued Speech, I did not understand them. Watching their subtle mouth movements and the constant reconfiguration of handshapes as the hand moved quickly near the mouth, I became an immediate outsider. They were foreign. They were unlike me. They were unlike deaf people who I grew up with. My perceived illusion: They are hearing. I am deaf. As I watched them interact, they appeared ‘hearing’ aside from the fact that they were cueing. The communicative dynamics of Cued Speech didn’t seem to parallel those in American Sign Language (ASL) nor did it resonate with my experience of non-signing oral deaf people. Then I was forced to realize that the cuers are deaf as well---I have had many

instances of this same moment of cognitive dissonance. Through time, this experience dissipated after getting used to seeing Cued Speech in action. One striking difference between cuers and non-signing oral deaf people is that non-signing oral deaf people tend to exaggerate their speech (or mouthing if not voiced) through slower, more deliberate movements. For example, it is common for deaf individuals with training in oral methods of communicating to slightly protrude the tongue when mouthing a word that has the consonant /L/ for purposes of disambiguation, whereas cuers' use of mouthing looks similar to hearing people's use of speech.

As I delved further into the world of cuers for this dissertation project, I realized that "native," or rather insider, ethnography (Tedlock 1991:178) is troubled in contexts like this. By taking up this project, I have put myself in a position where I negotiate my place among cuers while doing fieldwork at summer camps. Given my limited abilities in Cued Speech, communication between me and individual cuers with whom I have had contact included the use of gestures, my simple Cued Speech, mouthing simple words, and the use of ASL. A few adult cuers whom I've met do not use ASL whereas most others have relative fluency in ASL. As for deaf middle school and high school youths, most do not know ASL. Those who do know signs have not yet fully mastered the use of ASL. Cuers who do not know ASL or are not fluent in ASL are marginal to the American deaf community at large, so in this context, an individual cuer may attempt to negotiate his/her place in the signing deaf community while with me.

Subtle differences in the style of interaction among cuers led me to wonder more about the cuers' communicative dynamics and the linguistic repertoire that they have at

hand and how the particulars of this repertoire constrain processes of identity formation vis-à-vis interaction with English speakers on the one hand, and ASL signers on the other. Here I am not looking at actual differences in language use, but more at the style of interaction that entails particular dimensions of communication and how it compares and contrasts with my sense of belonging---not to mention my place as a linguistic anthropologist, that is, my liminal position as both insider and outsider anthropologist.

Central to linguistic anthropology is understanding the various ways in which people use language, not in the abstract, but under particular psychological, social, and historical conditions. I am interested here, in what those conditions are, for Cued Speech users, and how they inhibit or promote the possibilities for Cued Speech to undergo processes of structural change that resemble those of natural languages.

Hymes (1962) is known for building a new framework within linguistic anthropology deemed ‘the ethnography of speaking.’ Over the years, this field has become known as the ethnography of communication. It is “.... concerned with the situations and uses, the patterns and functions, of speaking as an activity in its own right” (Hymes 1962). Ethnography of communication focuses on the speech community and analyzes communicative events by observing their organizational structure (Saville-Troike 1989). For example, Schegloff’s (1968) successful study on the initiation of telephone conversations is a result of pattern analysis and analysis of conversational form. Patterns of conversations can be analyzed at different levels---societal, group, and individual, although most conversation analysts focus on structure (Saville-Troike 1989). Gender, for example, at the societal level, can be explored for differences in categories of

talk, communication styles, and attitudes (Saville-Troike 1989). However, it must be stressed that data from conversational patterns isn't enough; one must look at the 'larger socio-political context' (Gumperz in Saville-Troike 1989). Hymes (1972) created an acronym for various components in communication:

S –Situation: setting, scene: social event

P –Participants: addressor/addressee

E –Ends: goals: purpose of participants, outcomes: (event purpose)

A -Act sequence: how communicative acts are ordered

K –Key: mood/tone, i.e., happy, excited

I -Instrumentalities: discourse channel: writing, speaking, signing, typing

Type of speech: style

N -Norms of interaction (apologies/greetings) and interpretation of the communication of one another

G –Genre: referring to poetry, proverbs, myths, lecture

With regards to the methodology of the ethnography of communication, Hymes' acronym 'SPEAKING' is intended to help ethnographers consider inclusion of all possible parameters within the communication structure while doing fieldwork (Hymes 1972). Hymes is useful to me and I take this opportunity to extend his notion of "ways of speaking" into a multimodal terrain.

Although the investigation of the arbitrariness of form-meaning relationships are

important in studies of language, I am also interested here in the ways these relationships are manifest over broader patterns. There is also more to language use and in this vein, I will draw on Sherzer's (1987) Discourse Centered Approach (DCA) to examine Cued Speech by looking at its phonological or morphological aspects in a playful or artful manner. This is similar to the way Sherzer (1987) and Sherzer and Urban (1988) have used it.

Sherzer (1987) reconceptualized a language-centered approach by working from a discourse basis. His revision is now regarded as the Discourse-Centered Approach and is defined as follows:

“It is discourse that creates, recreates, focuses, modifies, and transmits both culture and language and their intersection, and it is especially in verbally artistic and playful discourse, such as poetry, magic, verbal dueling, and political rhetoric, that the resources provided by grammar, as well as cultural meanings and symbols, are activated to their fullest potential and the essence of language-culture relationships becomes salient” (Sherzer 1987).

Furthermore, “...speech play and verbal art should be seen as a central and most significant and revealing aspect of the language-culture-society nexus” (Sherzer 2002). Central to the methodology of the discourse-centered approach is the analysis of “grammatical and semantic relations and relations between language and culture”

(Sherzer 1987). In other words, DCA is a theoretical position and also a methodology which goes from the analysis of social meaning beyond sentences to the microscopic examination of the use of language including pitch, rhythm, etc. With this approach, all dimensions of language are taken into account in linguistic analysis including extra-linguistic form, the visual aspects, etc. What hasn't been studied is an examination of the visual ways of representing English at the phonemic level in face-to-face interaction.

From a linguistic anthropological perspective, I am interested in form insofar as it can provide insight into and a better descriptive account of the variation in linguistic resources available in human communication. While Cued Speech is not a natural language *per se*, but an invented articulatory system for encoding a natural language, I am interested in describing the ways in which cuers draw on the articulatory elements available to them as part of their linguistic repertoire, meaning, “the totality of linguistic forms regularly employed in the course of socially significant interaction” (Gumperz 1964:137). “Speech style is meant a recognizable type of language use, distinguishable from other types by its formal features” (Sherzer & Urban 1988:285). Using Cued Speech, cuers directly mimic spoken English speech styles. For example, Hamlet by Shakespeare can be cued or spoken; the only difference here is modality. Other speech styles used among cuers are distinctive styles one would only see during Cued Speech production and cannot be comparable to speech.

Conversation analysis (CA), as defined by Ten Have (1991) “is a disciplined way of studying the local organization of interactional episodes. Its unique methodological practice has enabled its practitioners to produce a mass of insights into the detailed

procedural foundations of everyday life.” Besides looking at the beginning and/or ending sequence of a conversation, conversation analysts look for turn-taking cues which can include intonation, pauses, fillers, direct quotations and tag questions. CA may be defined, then, as the enterprise of analyzing interpretations in interaction” (Ten Have 1991). For chapters 2 and 4, I will use a "modified" form of CA adapted from Schegloff and Sachs’ (1973) formalist CA approach. This adaptation allows me to closely examine paralinguistic utterances which occur naturally in conversations. In other words, I use CA to describe using conversational interactions as data---just as linguistic anthropologists typically do.

1.5 Sources of Data

For most of my dissertation, data is drawn from interviews, videotaped interactions and ethnographic observations of day-to-day interactions at summer camps. The bulk of the data comes from two main sources. First, I attended several week-long camps. The camps offered Cued Speech classes, guest speakers, and it was also a place for camp organizers to sell books, games, and t-shirts related to Cued Speech. These camps have both institutional contexts and everyday conversation contexts which results in practices which play a role in shaping what Cued Speech is. This made for an ideal place to meet cuers and observe interactions. For this reason, I took advantage of those resources while attending the camps and became a student of Cued Speech. At one camp, for 5 days, one hour a week, I was the lone pupil learning Cued Speech taught by a deaf cuer who had cued since age two. My experience with learning Cued Speech was about

code breaking---deciphering and combining codes of various handshapes with locations. One and two syllable words were easier to produce and therefore easier to remember. As an ASL user, I tended to remember cued locations and handshapes as if they were a sign. These words, for example, included ‘coffee’, ‘hello’, ‘ha-ha’, ‘so’, ‘what?’, ‘oh!’, ‘no’, etc. At these camps, I attempted to cue with parents, professionals, children and deaf adults.

Most of the time at the camps, I was seen with a video-camera recording communicative interactions among cuers. The videocamera was an especially useful tool during fieldwork. It allowed for careful examination of how Cued Speech is used among deaf users. Not being a fluent user of Cued Speech, I rely on videotapes and transcription done by a fluent deaf cuer to ensure careful description and analysis of the linguistic repertoire of the cuers. Five hours of video recordings come primarily from one summer camp held in 2005. I chose this camp based on my prior acquaintance with several deaf cuers who had participated at another Cued Speech camp a few years earlier. Videotapes were edited into smaller subsets for analysis; edited clips were transcribed for further analysis using methods conventional in linguistic anthropology, namely modified conversation analysis.

The second source of data was a recorded dyadic videophone conversation between two cuers; one cuer was in Texas while the other was in Washington, DC. The conversation lasted for 30 minutes.

For each chapter, I adopted a particular methodology. The methodology used is described in detail for each respective chapter. Data for chapters 2 and 3, however, comes

from one deaf adult cuer's re-telling of a story. The re-tellings are elicited narratives using black and white non-verbal, narrative based drawings known as The Frog Story (1967).

Videotaping Cued Speech interactions during fieldwork has limitations. It is difficult, if not impossible, to consistently and completely capture multi-party or dyadic conversations without compromising the complete documentation of turn-taking, overlaps, and other important conversational features critical to the analysis of conversations. From my experiences, videorecording cuers in a conversation is unlike videorecording signers. One reason is that ASL can be easily and readily understood from a good distance whereas with Cued Speech, recording a cuer using medium shot is best and most reliable for effective transcription. When two or more cuers are being videorecorded with a single videocamera, some of the data is likely to be compromised. A fish-eye lens for a broader peripheral view won't do complete justice either but, despite the problems, I did have some success with videorecording interactions at the camps. And interestingly, my difficulties in capturing Cued Speech interactions allowed me to look at Cued Speech from a different perspective and identify a significant practical difference. As I panned the camera side-to-side to capture a Cued Speech conversation, I sometimes missed beginning and ending syllables for cued words. In contrast, in an ASL conversation, each lexical item involves the simultaneous expression of a certain handshape, location, movement and palm orientation. There is often co-articulation between one lexical item and the next. For example, the first lexical item may involve just one hand, which may be held in place while the second lexical item is signed with the

other hand. Another example is when the first lexical item uses one hand but the second item uses both hands. Before the articulation of the first lexical item is complete, the articulation of the second item already starts, for example, by raising the non-dominant hand in anticipation of that sign. There is often co-articulation not only between two lexical items within a sentence but also between two lexical items across two sentences.

As mentioned above, besides videorecording Cued Speech interactions at summer camps, I have also videorecorded a dyadic Cued Speech interaction between two cuers who used a videophone. One cuer was in Texas while the other was in Washington, DC. They knew one another and were in a conversation for 30 minutes. This is modeled after a previous study involving signers using videophones (Keating and Mirus 2003). The previous study examined how signers negotiated with the new videophone technology and how they creatively made themselves understood through a computer-mediated environment (Keating and Mirus 2003). The two cuers in the current study, however, had extensive experience with videophones using ASL (not Cued Speech) prior to being videotaped and were attuned to the technology. One cuer has never used Cued Speech with anyone via videophone while the other cuer has had some experience cueing via videophone.

1.6 Organization of Dissertation

Chapter 2 focuses on the ways cuers make articulatory adjustments. Chapter 3 focuses on the ways gestures are incorporated during Cued Speech production. Essentially, it looks at the relationship between modality, gesture, and language. Chapter 4 explores how cuers can creatively juxtapose Cued Speech production by transcending boundaries of everyday talk, in other words, language play. Chapter 5 closes the dissertation by summarizing the previous three chapters and by re-visiting the broader questions raised at the outset regarding Cued Speech and the people who use it.

Chapter 2: Cued Speech: An Inquiry Into Adjustments

Based on the premise that change in language use is inevitable, this chapter examines various adjustments in the way cuers use Cued Speech. While doing fieldwork, I have noticed a rather striking difference between deaf adult cuers who have used Cued Speech all their lives and hearing cuers who learned to use Cued Speech as adults. What exactly is the reason for those striking differences? How are late learners of Cued Speech (e.g., hearing cuers) different from deaf cuers who were exposed to Cued Speech from early childhood? As noted in Chapter 1, hearing adults likely do not learn Cued Speech the same way deaf children do. English speaking, hearing adults learn Cued Speech articulation based on their existing knowledge of spoken language whereas deaf children who don't have natural access to a spoken language tend to learn Cued Speech communicatively through day-to-day interactions with family members and deaf cueing peers.

With regard to the shift from the expected way of cueing to a more fluent form of cueing, there is evidence that cuers diverge on different levels of articulation (Koo 2003). This chapter first examines the literature regarding various motric changes in the use of signed languages; then I present my findings and I conclude this chapter discussing the implications my findings have for the questions raised.

2.1 Efficiency and Production

Cued systems and signed languages occur in the same modality and, for this reason, I will briefly review changes that have occurred in signed languages. In looking at the literature about historical change in spoken languages (e.g., Sapir 1921:186-89) and in ASL (e.g., Frishberg 1975), change often happens in response to the need for efficiency of production. For example, historically, the ASL sign *GOLD* was a compound of the signs *EAR* and *YELLOW* but now that compound has reduced to a single sign in response to pressures for smoother and quicker movement (Frishberg 1975:707).

Unlike historical change as mentioned above, a difference between fluent signers and novices can also be reflected through motoric change in signed languages, e.g., in the use of joints of the arm and hand (Mirus, Rathmann and Meier 2001). This is not a historical change, but is a difference between fluent signers and novices. Fluent signers show a tendency to use joints distal from the torso whereas novice signers show a tendency to use joints that are proximal to the torso. Proximalizing the use of joints is typical when one has to learn a new motor skill for a particular task, e.g., learning to ski or to write with the non-dominant hand. In the Mirus, Rathmann and Meier study, hearing and deaf second language (or L2) learners of ASL and German Sign Language (DGS) were asked to imitate signs from a signed language they did not know. The results showed that hearing participants tended to proximalize sign movement (they showed a tendency to use an arm joint closer to the torso than in the modeled form), while deaf participants proximalized movements much less often, owing to the highly developed motor skills necessary for the production of their own sign language. For example, the

sign *GALLAUDET* has a closing movement at the first knuckle (the metacarpophalangeal joint) that is articulated simultaneously with the extension of the wrist. However, hearing participants who did not know ASL, for example, omitted the extension of the wrist and instead used the elbow (flexion movement) and metacarpophalangeal joint to produce the sign *GALLAUDET*. Here, we see that the hearing signer proximalized the sign by using the elbow instead. Signs that are proximalized tend to have more gross and slower movements.

Like adults in the Mirus et al. study, deaf toddlers also show a tendency to proximalize their use of joints while acquiring ASL (Meier, Mauk, Mirus, & Conlin 1998; Meier, Mauk, Cheek & Moreland 2008). In their early sign production, deaf infants are more likely to omit distal articulators and are more likely to use a proximal articulator. For the sign *BLACK*, one child, for example, used an outward movement of the full arm at the shoulder rather than the rotation of the forearm at the radioulnar joint the way adults produce it. Again, the proximalization of the joints in L1 and L2 signers is attributed to the problem of acquiring a new motor skill.

The forearm and wrist determine the palm orientation of a given sign. The pronation and supination at the radioulnar joint determine three possible palm orientation in signed languages: up (e.g., *MORNING*), down (e.g., *NEED*), and mid (e.g., *STOP*),



Figure 6. ASL signs made with different joints of the arm

The orientation of the palm executed by the pronation and supination at the radioulnar joint is one of 4 parameters in signed languages. The palm orientation meets the minimal pair condition, where the meaning of two signs can be distinguished just by the orientation of the palm, e.g., *CHAIR* and *NAME* both share the same location, movement and handshape but *CHAIR* is produced with the palm orientation facing downward while *NAME* is produced with mid palm orientation.

At the wrist, there is the regular position (Figure 7a) and the ulnar flexion (Figure 7b).

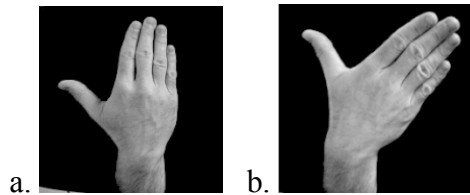


Figure 7. Positions of the wrist

These positions seem to be allophones, since there are no minimal pairs, they alternate depending on the phonetic condition, and co-occur as a contour. For example, the sign *GRANDMOTHER* begins with figure 8a below and ends with figure 8b below.

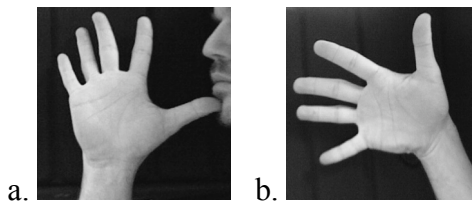


Figure 8. ASL sign for GRANDMOTHER

The signed production for *GRANDMOTHER* involves the ulnar flexion at the wrist long with slight extension at the elbow. L2 adults who learn ASL later in life sometimes show a tendency to not use the ulnar flexion at the wrist but rather put more emphasis on the extension at the elbow. To that effect, doing away with using the ulnar flexion at the wrist results in a more gross motor movement.

The old ASL signs *FEEL*, *PLEASE* and *LIKE* were once made on the heart and through time, these signs made contact on the midline of the torso (Frishberg 1975). This process is defined as body displacement. There is also head displacement, according to Frishberg. Examples include two-handed signs that become one-handed, and old signs on the center of the face moves away from the face.

The question is whether changes similar to those described above occur in cued production, and if so, what are they and why do they occur? One study showed that Cued Speech articulation generates 4 syllables per second whereas speech articulation generates 6 syllables per second (Duchnowski, et al. 1998). A similar study has been done with the rate of signs per second between SEE and ASL (Klima & Bellugi 1979: 193). This study revealed that the production of SEE required 1.7 signs per second whereas the production of ASL required 1.2 signs per second. Results differed drastically when SEE and ASL were measured in terms of proposition per second. For SEE, it was 2.8 seconds per proposition whereas in ASL, it's 1.5 seconds per proposition. With regards to sign language and speech, the propositional message in ASL and English is the same despite the fact that it generally takes more time to articulate a sign than a spoken

word (see Klima & Bellugi 1979: 189). Grammatical features in ASL have, in fact, been adjusted to allow for quicker conveyance of propositions. For example, *TWO-OF-THEM* is produced with one sign. Also, ASL agreeing verbs like *LOOK-AT-ME* are made with one sign. Is cued production slower than speech because it uses the visual-gestural modality? Or are there other subtler factors behind the difference in the rate of articulation?

2. 2 Methodology

The data collection and analysis for this chapter combines an ethnographic with a psycholinguistic perspective. My data draws on videorecorded observations from camps that I have attended, recorded videophone conversations between two cuers, and an elicited story from one cuer about a boy and a frog (see chapter 1 for details on methodology). As mentioned in chapter 1, I draw on ethnography of communication and I use modified conversation analysis to present my findings.

2.3 Data

This section looks at various adjustments in the articulation of Cued Speech including the distalization of the joints, movement deletion, neutralization, and de-phonation.

2.3.1 Distalization

In looking at the distalization of the joints, I examine fluent cuers' use of joints to better understand how adjustments have occurred during Cued Speech production.

The question I ask is whether or not they distalize their use of joints and if yes, which ones?

One excerpt describes proper forms of cueing—not with the handshapes per se but rather the position of the arm in relation to the face as follows:

“...the forearm angle, and the positioning of the elbow, should be chosen so as to place the tips of the longest fingers at a horizontal distance of about four inches from the vertical plane bisecting the chin.”

Professionals and parents who learn Cued Speech as adults are taught to use the bigger articulators, e.g., the shoulder and elbow joints. Unlike hearing adults who show a tendency to proximalize when learning a signed language, hearing cuers are not able to proximalize the use of their joints because Cued Speech was designed with proximalized forms already in mind (e.g., shoulders and elbow joints). The shoulder joints help with movements that go from, for example: 1) chin to throat and vice versa, 2) side placement to throat, chin, and cheek and vice versa. And the elbow joints (through repeated extension and flexion) are used, for example, when cuers make movements to or from the chin or throat.

The phenomena of importance here are that fluent cuers show a tendency to use more distalized forms. This is incongruent with forms that adult cuers learn. While attending a meeting hosted by the National Cued Speech Association, I noticed a young girl, about seven years old, cuing in a way that seemed unusual compared to hearing cuers and some of the adult cuers I had met. Her wrist was loose, and her motions subtle. She seemed to be moving quickly, with little effort, thus appearing sloppy. I asked one informant who was a deaf adult cuer if she was considered competent, and he said her cueing is smooth, the use of mouthing is not stressed. Because of her native-like fluency, it is not easy for novice cuers (including those who had just been introduced to Cued Speech like myself) to parse. From the observations of one informant, she allowed the middle finger of the /ch/ handshape (the index and middle fingers, both spread) to make contact on the chin.

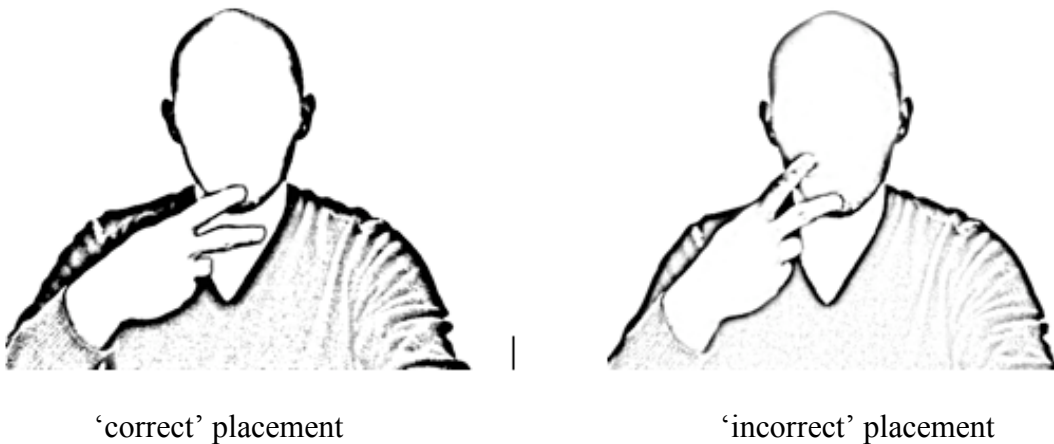


Figure 9. Placement of the hand for /ch/ in Cued Speech

According to Cued Speech conventions, the index finger of that handshape has to make contact on the chin. What is the impetus for this ‘mistake’ or maybe more appropriately, ‘change’?

From my dataset, I show on videotape a cuer who sits on a chair leaning forward while the elbow of the dominant arm rests on his leg. Rather than placing the “tips of the longest fingers at the horizontal distance of about four inches from the vertical plane bisecting the chin,” his hand is positioned approximately an inch and a half “from the vertical plane bisecting the chin. While he cues, “*struggle*” /s,t,ruh,g,l/ one inch from the vertical plane bisecting the chin, he flips his wrist forward to make contact on the chin for the production of ‘to’. Here, he ‘violated’ two expected Cued Speech conventions: 1) using the wrist in lieu of the elbow and 2) positioning for side placement is much closer to the chin than prescribed. The entire phrase was cued in very close proximity to the face with no or at least very little movement executed at the shoulder.

01 Cuer: [cueing closely in front of the mouth]
 So he is continuing the struggle
 [bending of wrist, making contact on chin] to
 pull him away from the turtle.

This process of change can be regarded as ‘hand’ displacement which is similar in vein to Frishberg’s (1975) study that showed signers making changes for efficient production in ASL. Frishberg calls the change body displacement and head displacement. In the case of Cued Speech, the placement of the hand (being in neutral space) is shifted to an area

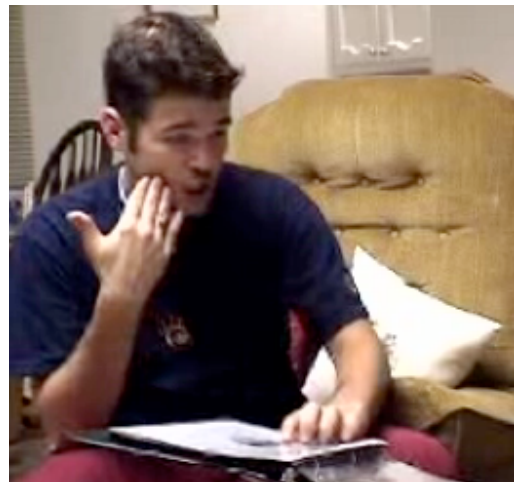
much closer to the mouth, hence the term I described as ‘hand’ displacement. The cuer’s displacement of the hand has allowed for the distalization of the joints.



Figure 10. Bent wrist in Cued Speech for ‘Paw’ (/p/ handshape makes contact on the chin (/aw/vowel placement). Note that the wrist is bent.



shallow



water

Figure 11. Cued Speech for ‘shallow water’

Above an adult cuer cued, “That proves it’s shallow water.” Notice here that the wrist is bent when producing /sh/ with vowel contact on the throat. The cued *water* is articulated at the elbow with the wrist slightly bent.



Figure 12. Flexing the wrist helps reduce movements of the elbow

While the cuer cues *Sue*, the ulnar flexion of the wrist is made (wrist tilted sideways) while the cuer executes subtle flexion movement at the elbow so the tips of the fingers can make contact on the chin (a vowel placement for /ue/).

Even among the most fluent deaf cuers, joints are not always distalized but the movement has reduced significantly. For example, the cued word *pop* can easily and ‘improperly’ be executed at the wrist but even in its ‘proper’ form, which is the to/fro extension of the elbow, the cueing tends to be more gross or more “formal” among hearing adults. But in the case with deaf cuers and even among proficient hearing cuers,

the cued word *pop*, for example, executed at the elbow, there is a significant reduction in the movement.

2.3.2 Movement Deletion

In continuing with the subtlety of cued production, I also look at movement deletion to see if certain cued movements are deleted in a similar way signs are deleted for the purposes of compounding. I have one example where a cuer deleted movement during the production of a cued word. A fluent cuer cued ‘*stop*’ without to/fro movement at either the wrist or the elbow. The cuer made three different consonant handshapes /s/, /t/ and /p/ in neutral space, which represents the /ah/ vowel placement. As the rule goes, *stop* would be cued as follows: dominant hand in neutral space, /s/, /t/, to/fro executed at the elbow, then /p/. Here we see a cuer who went beyond distalization of the joints simply by not using them. This reduction can be comparable to movement deletion in ASL compounds, e.g., *LOOK-SAME*. Before, it was two distinct signs and with time the two signs compounded into one sign, one movement. Also in the case of the fingerspelled word D-O-G, the transition from O to G results in a change to the palm orientation (O being down and G being in mid position). As the fingerspelled D-O-G became borrowed and lexicalized into a sign, the sign for *DOG* made with mid palm orientation; there are no movements in the joints except internal movements of the hand.

In English, an example of deletion: chocolate → chak-lit. It is interesting that Cued Speech follows these contractions while, at the same time, it has its own unique contractions.

2.3.3 Neutralization

With regard to neutralization, one well-known example appears in Slavic languages like Russian. They make a phonemic distinction between voiceless consonants like /p/ and voiced consonants like /b/, but this distinction is lost at the end of the word, when all voiced consonants become (or are neutralized) as voiceless.

While doing fieldwork at one of the Cued Speech camps, I received a one-on-one Cued Speech lessons for one hour a day over 5 days. My instructor was a deaf cuer who had used Cued Speech since age 2. That week, I managed to learn and memorize all of the vowel placements and attempted to memorize the 8 handshapes. On my 4th day while going over a list of words with my instructor, I was quite good at matching cued placements with their corresponding handshape for many of the simple 1 or 2 syllable words. Learning to cue, for me, has been about breaking codes. Sometimes I made errors with vowel placement. I might cue, for example, *saw* when I meant *see*. At other times, I would use the wrong handshape, e.g., I might cue *peek* when I meant *weak*. During my lessons, I am reminded of the intricacies of spoken English, e.g., the final /s/ being silent in the word Illinois. Making distinctions between /s/ with /z/ and /θ/ with /ð/ was the most troublesome experience I had during my Cued Speech lessons that week.

This was when I realized that a parallel universe between Cued Speech and speech has been attempted but the question is whether or not there has been complete success. Cued Speech is phonologically oriented so that deaf cuers are expected to make a distinction between /z/ and /s/ endings. In English, [s] and [z] are allophones (=

variants) of the plural morpheme /-z/, but cuers drop this phonemic distinction. The /s/ and /z/ are not confusing in words, for example, like 'sit' and 'zit'. Deaf cuers are expected to make a distinction between voiced /th/ and non-voiced /t/. As the rule goes, if the final consonant is voiced, then one should use /z/ whereas non-voiced final consonants require /s/ endings. Deaf cuers do make the mistake of not distinguishing /z/ and /s/ and their mistakes can be attributed to hearing parents who make these mistakes (pc. Franklin 2008). For hearing novice cuers, they would have to be conscious about their own speech before making appropriate placements and handshapes. “Sometimes a beginner is tempted to cue *his* with an “s” at the end” (Cornett and Daisey 1992:58).

01 Cuer: C-S-S (fingerspelled) is more of a scripting language. Yeah, I’m familiar with it.

Here, the cuer cued ‘*is*’ as /is/ rather than /iz/. This cuer, however, began to use Cued Speech at age 8 and despite the fact that ‘*is*’ is a verb that is frequently used, his being a late learner could be a factor for this mistake. Other cuers I’ve seen in my transcription cued /iz/ and these cuers were exposed to Cued Speech as infants.

2.3.4 De-phonation

The last subsection looks at de-phonation. Phonation is a term used to mean the production of speech sounds and I use the term de-phonate to mean no speech sounds (or no vocalization). Cuers, hearing and deaf, at times opt to simultaneously cue while speaking and at other times, cuers de-phonate. I explore here the various situations in which cuers decide to phonate and de-phonate while cueing.

Speaking and signing at once is regarded as simultaneous communication (or sim-com, for short). Because this mode of communication draws on two languages with distinct grammars, it does not accurately convey either language. Studies have shown that simultaneous communication often resulted in sign deletions. This mode of communication is prevalent among educators of deaf children (Lucas & Valli 1992; Maxwell and Bernstein 1985; Akamastu and Bonkowski 1990). However, the situation with Cued Speech and spoken language is different, because both code the same language. The question is whether both are used simultaneously, and if so, how well is this done? For example, is the rate of articulation the same?

The use of two modalities is not typical in deaf to deaf Cued Speech interactions. However, the simultaneous use of cueing and speech is more frequent in hearing/hearing interactions and deaf/hearing interactions. Hearing cuers often have weak Cued Speech comprehension skills and at times, when a deaf cuer meets a hearing cuer, (as Auer 1995 puts it) there's a change in participant constellation whereby the deaf cuer would use his/her voice to accommodate the hearing cuer. Not only is it an issue of accommodation, often parents and teachers would encourage deaf cueing children to speak as they cue for purposes of 'maintaining' speech skills.

At a Cued Speech camp that I attended, a hearing camp organizer cued and spoke simultaneously to an audience of campers. Next to the camp organizer stood an interpreter who translated between ASL and English. Another observation: while eliciting and videorecording frog story narratives, one cuer, out of concern about providing access to non-signing/non-cueing researchers, asked whether or not she should use her voice during the videotaping. Not expecting this question, I encouraged the cuer to do what was most comfortable. The cuer decided to cue and speak simultaneously.

What happens to the phonological organization when a cuer cues and speaks simultaneously? Apparently, it is not a problem to cue and speak simultaneously, but further study is needed to look at whether or not production is slower than speaking alone and whether or not simultaneous cueing and speaking can affect intonation.

2.4 Discussion

We now go back to the question raised in the beginning: Have changes occurred in the way Cued Speech is articulated? In this chapter I identified and described some of the ways in which cuers make adjustments to the production of Cued Speech. This chapter looked specifically at how cuers make adjustments to the articulation of Cued Speech, e.g., distalization, movement deletion, neutralization, and de-phonation. From this chapter, we have learned that cuers made several types of articulatory adjustments. Increased Cued Speech fluency results in the reduction of the cueing space and in some cases, the distalization of the joint (e.g., using the wrist instead of the elbow). In contrast, those who learn to use Cued Speech as adults show slower, more gross movements.

Gross movements are a result of learning a new motor skill. Transitioning from one cued handshape to another requires skill, hence the slowness. This parallels with a study which looks at L2 adults learning a signed language as L2 and how they show a tendency to joints more proximal to the shoulders (Mirus, et al. 2001). Cuers using more distalized joints apparently do this to make the articulation more efficient. This raises the question of whether results found by Duchnowski, et al. (1998) in looking at syllables per second between speech and Cued Speech would be different if they took into account these changes, and if they took into account cuers' rate of proposition.

Woll (2001) uses the term 'echo phonology' to describe syllabic reduction in the use of mouthing for the sake of corresponding with the timing and rhythm of a given sign. For example, the sign *WONDERFUL* can be simultaneously mouthed as 'won-ful.' The second syllable 'der' is omitted. Another example: the sign *LESBIAN* can be simultaneously mouthed as 'lebbie.' Had every syllable been mouthed according to the proper English pronunciation, a longer sign, possibly with more repetitions, would have been necessary. *LESBIAN* is made with an 'L' handshape; the tip of the index finger makes contact on the chin two times. Mouthing all three syllables would be incongruent with the expected signed production. Interestingly, there is no evidence of syllabic reduction in Cued Speech—had there been, we would see a whole new English dialect with either vowel reductions (omitting placements within a word) or consonant reduction (omitting the use of a handshape within multi-syllabic word) and this would mean that Duchnowski, et al.'s (1998) study in looking at syllables per second between speech and Cued Speech would have to be re-evaluated.

This study is especially important to the understanding of cross-modal second language acquisition. Hearing adults who have a spoken L1 must learn to use a new set of articulators for linguistic communication thus requiring them to learn to use a new motor skill to use the arms and hands as a way to represent meaning. With regards to hearing cuers learning Cued Speech, it cannot be seen as a cross-modal second language acquisition but rather learning to use a different set of articulators for the same language--in this case, English. Since the invention and implementation of Cued Speech, there has been emphasis on the proper form of cueing (e.g., Cornett and Daisey 1992:58). However, cuers who have used Cued Speech on a daily basis since early childhood seem to distalize their use of joints over time for the sake of more efficient articulation. For example regarding the emphasis on proper form of cueing:

“Beginning cuers should try to keep the forearm-wrist-hand combination straight, avoiding any bending of the wrist. As they become fluent and cue more and more rapidly, they will need to increase their effort to avoid excessive bending of the wrist. If beginners form the habit of bending the wrist at will, the tendency to increase the bending as they become fluent is likely to make them “floppy” cuers, which is undesirable...”

The central focus here is the wrist. The passage above acknowledges that cuers, when they become more fluent, tend to change the way they cue. It advises that fluency will increase the likelihood of using the wrist which has been deemed as undesirable. I take

this to mean the use of the wrist in lieu of or in conjunction with the elbow. Cuers' distalization of the joints seem to often go hand-in-hand with what I described as hand displacement (in parallel with Frishberg's 1975 body and head displacement in ASL). Smaller and subtler movements allow for increased efficiency in cuers' articulation of the hand.

For future research, a study that looks at how ASL signers learn and use Cued Speech as adults could reveal the kinds of phonological mistakes deaf signing adults make while cueing. Phonological mistakes might include handshape errors, e.g, the ASL handshape F is similar to its cued counterpart except that the fingers are all in contact with one another and not spread like ASL handshape F. While there are a good number of deaf cuers who later learned ASL as adults, I have yet to meet an ASL signer who learned to use Cued Speech fluently as an adult. There are, however, deaf signers who have married deaf cuers and some signing spouses attempted to learn Cued Speech but none that I know of thus far can cue fluently--just certain words and phrases.

Koo talks about movement path reduction (2003:55) but doesn't explain how it's reduced. Analysis of joint usage via video won't do the topic complete justice because distal movements are smaller thereby leading to the chance of overlooking or misinterpreting joint usage. Future studies on distalization of joint usage among cuers can rely on electromyographic data (EMG) to identify accurately the various joints used during Cued Speech production.

Chapter 3: Cued Speech and Gesture

In the past few decades, researchers in a variety of fields have shown new interest in the relationship between gesture and language. The widespread use of video technologies has led to new opportunities to examine the visual aspects of everyday communication in both spoken and signed languages. This development, along with growing academic interest in the world's signed languages, has raised a number of questions about modality. Modality is the way in which language is expressed and perceived by people. There are two ways that language may be expressed and perceived: auditory-vocal and visual-manual. Past research in linguistics has focused almost exclusively on spoken languages. Past study of signed languages has contributed to the understanding of the relationship between modality and language, the biological foundations of language (Klima and Bellugi 1979), language acquisition (Meier 1982), and the understanding of cross-modal interactions among deaf and hearing school children (Keating & Mirus 2003).

This chapter fills in the gap in research (with the exception of Koo 2003) on Cued Speech and its relationship to modality and language. Specifically, there has been no known study on the use of space and gestures by those who use Cued Speech. Addressing those areas here will allow for better understanding of the interaction between gesture and language.

I will examine the relationship between modality, gesture, and language among users of Cued Speech. How does Cued Speech affect gesture production and vice versa? What factors influence gesture production? Although I will not attempt an exhaustive comparative analysis here, I will also explore how a shared articulatory channel imposes constraints on the use of gesture and its coordination with cued utterances. Cued Speech produces English manually at the phonological level. I believe Cued Speech shares features of spoken English at other levels of linguistic organization as well. However, given that it is produced manually, Cued Speech may take advantage of some of the resources used in signed languages, such as the linguistic use of three-dimensional space and sharing the articulatory parameters of signed languages.

This chapter first examines current literature on vocal and manual gestures. For vocal gestures, co-speech gestures are examined as well as mouthing and mouth gestures. The visual-manual oriented gestures, specifically co-speech and co-sign, are examined. Modeled on the organization of my literature review, my analysis will first look at simple mouthing gestures and whether or not they occur simultaneously and/or sequentially with Cued Speech production. I will also look at various types of manual gestures (emblem, deictic, and iconic) and determine if they occur sequentially and/or simultaneously during Cued Speech production. The last part of my data analysis looks at complex use of gestures, meaning the use of mouthing, manual gestures and cue. Presentation of the data analysis will be followed by discussion.

3.1 Gesture and Space

3.1.1 Gestures in the Auditory-Vocal Modality

The use of gestures is not specific to the visual-manual modality. Gestures can also occur in the auditory-vocal modality (Okrent 2002). For example, the varying use of pitch in speech is considered ‘spoken gesture’ (Okrent 2002), as in “the bird flew **up** [high pitch] and **down** [low pitch]” (Okrent). Another example is the use of vowel lengthening for emphasis, as in ‘looong time.’

The term ‘mouthing’ in signed language literature refers to the voiceless oral movements that co-occur with many signed languages world-wide (Boyes-Braem 2001; Schermer 1990; Ebbinghaus & Hessman 1996; Berent 2003). In other words, mouthings are based on spoken words and are produced without the voice. A distinction needs to be made between mouthing and mouth gestures. Mouth gestures are unique to signed languages. For example, the voiceless ‘CHA’ is made while the signer describes a large object with the hands. Another example includes the voiceless ‘PAH’ and is used in conjunction with the sign ‘FINALLY.’ I’ve put mouthing, mouth gestures, and spoken gestures together with vocal gestures because they share the same modality.

3.1.2 Gestures in the Visual-Manual Modality

It has been argued that "gesture is not a language, but is part of a system of speech and language. Gesture has little syntax and no standards of well-formedness, and is not socially-regulated" (McNeill 1995:63). I will examine my data using McNeill’s (2000)

continua. McNeill expands Kendon's (1982) continuum for the typology of manual gestures, e.g., gesticulation, emblems, pantomime, and sign language. A gesticulation is a non-conventionalized speech-accompanying gesture that lacks "language-like properties of its own whereas emblems, being more conventionalized, are somewhere in between gesticulations and signs, for example, the gesture for 'crazy' or various numbers including 'one,' 'two,' etc (McNeill 2000:6). McNeill further divides Kendon's continuum into four continua to more accurately distinguish different types of gestures for specific types of analysis. McNeill's first continuum examines gesticulation, emblems, pantomime and sign language in relationship to speech; the second continuum examines these gestures with respect to their linguistic properties; his third continuum looks at gestures in terms of conventionalization; and the fourth continuum groups gestures according to their semiotics.

Gesture and speech are a co-expressive system, and are synchronized using both auditory-vocal and visual-manual modalities (Kita 1993; Butcher and Goldin-Meadow 2000). Among adults, gestures without the use of speech are rather infrequent except for emblems which are sequential (Butcher and Goldin-Meadow 2000). In other words, co-speech gestures are most often simultaneous with speech.

Emblems (Ekman and Friesen 1969) are also gestures, conventionalized gestures that include the American thumbs-up (to represent approval or good) and 'OK' (produced with the index finger in contact with the thumb). Within this study, only the emblem 'stop,' a gesture where the cuer's palm faces the addressee is examined. Affect display, another type of gesture, adds affect to what is being communicated. For the most part,

facial expression expresses emotion; however, the hands are also used for displaying affect. For example, as with my data for this chapter, the adult cuer produced a circular movement at the wrist to denote frustration.

Deictic gestures almost always occur concurrently with speech. Pointing can function to establish a referential pronoun or tense, and to make an indexical reference to objects. Pointing identifies an object or a location. Sometimes pointing is used to denote movement paths or directions (Kendon 2004). Pointing is most often produced with the index finger and occasionally with the thumb if the referent is behind the speaker (Kendon 2004). Head movements, eye movements, and the puckering of the lips can also function as pointing gestures (Sherzer 1972; Enfield 2001).

There is much research on the use of space in signed languages and gestures. The use of space is a unique resource for the visual and manual languages as well as visual aspects of spoken language communication. In signed languages, the space around the signer can be used to contrast events, for example, to time preceding the utterance, or to express hypotheticals and counterfactuals. Space is also used for other purposes (see Klima and Bellugi 1979; Emmorey 2002; Liddell 2003). Gaze direction, head and body orientation, and posture are all relevant at the discourse level to indicate shifts in reference, marking of addressee, and shifts in locus (Engberg-Pedersen 1993:42). A variety of researchers document the features of ASL which depend on the grammatical use of space (Klima and Bellugi 1979).

Before discussing gestures, let me briefly describe examples of invented signed systems such as Signing Exact English (SEE II) that do not use spatial resources.

Instead, while following the English grammar, SEE II heavily relies on morphological endings. For example, to make a distinction between ASL and SEE II, the object for the sign YELL in figure 13 below has been established on the right side. For example, in the ASL sentence “Pat yells at Chris,” Chris is the object and is established on the right, while Pat is the subject and is established on the left. This figure shows the ASL sign, which is correctly directed to the right to agree with Chris. The illustration of the SEE version (figure 2) has two parts. The first part shows YELL (incorrectly) directed to Pat the left and second part shows the –S morpheme as in ‘he yell-s’.

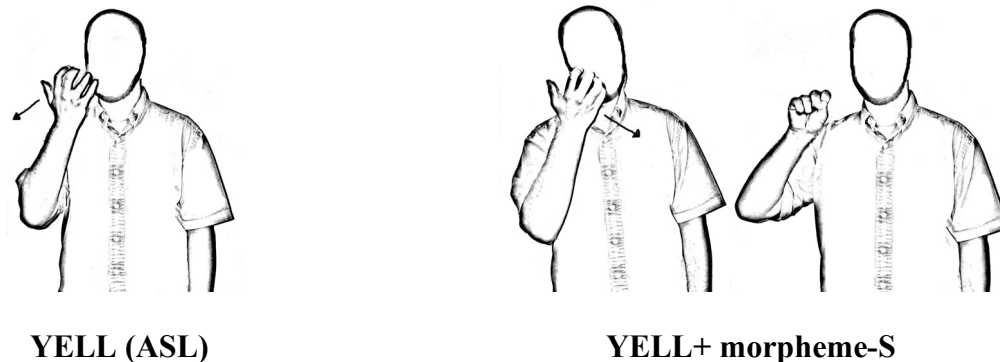


Figure 13. ASL vs. SEE (The figures are due to C. Rathmann and G. Mathur and are reprinted with their permission)

Signing Exact English (SEE II), and Cued Speech are both morphologically segmented in sequential order and both are produced manually. Like SEE I and II, Cued Speech did not emerge independently in the same way as spoken languages, signed languages or gestures. Unlike SEE II, Cued Speech does not mix features of natural signed languages with attempts to represent English morphology. Instead, articulatory

functions of the mouth and air stream are transferred to the hands, face and body, thus maintaining an internally consistent system. If visuo-gestural modalities lend themselves to use of grammatical space and grammaticalization of gesture, then we would expect to see Cued Speech following the same patterns as those found among SEE I and II users. Therefore, given the visuo-manual nature of Cued Speech, this raises the question of whether or not cuers add complexity to the use of gestures. Supalla and others suggest that children are predisposed to use space with signed languages and gestures and that SEE II violates this predisposition. Supalla (1991) analyzes spatial use among deaf school-aged children who use and are exposed to only SEE II. In other words, in the attempt to invent a code capable of expressing spoken English morphology manually, additional articulatory constraints were not consistent, thus resulting in fairly predictable problems at the level of interpretation. Spoken English morphology is sequentially segmented whereas the morphology of natural signed languages is both sequential and simultaneous. Signing Essential English (SEE I) and SEE II, both invented systems, do not use simultaneous morphology. Instead, they are based on sequential morphology derived from spoken English.

Supalla's data comes from observations and videotaped elicitations. He showed MCE-exposed children 45 videotaped scenes in which two people sit next to each other and interact and perform various tasks together. Examples include: one person giving the other a box, one yelling at the other, etc. His findings produced the following results:

- 1) SEE II children used spatial-based pronouns comparable to ASL.

- 2) SEE II children produced verb agreement comparable to ASL.
- 3) SEE II children most often produced signs using simultaneously-organized (spatial) morphology, despite the fact that their teachers and parents only used SEE II.

The children's SEE II input morphed into an output which more resembles natural visual-gestural language like ASL. The children's signs are more polysynthetic when compared to their SEE II models, e.g., hearing parents and teachers.

In another study, psycholinguists Goldin-Meadow and Mylander (1990) summarize their 15 years of research work related to 'the development of language-like behavior in children who lack normal linguistic input during their early stages of acquisition.' Essentially, Goldin-Meadow and Mylander are interested not in the parents' contribution to the child's language acquisition process, but in the child's own contribution. With data from deaf children with non-signing hearing parents, they analyze how gestures are structured by deaf children and compare their use of gestures with the parents. Their research shows that children with impoverished language input devise ways to best organize their input which, in turn, optimizes their linguistic output.

Goldin-Meadow and McNeill (1999) propose that gestures and speech are not independent from one another. They question whether signers incorporate gesture and suggest that if signers do not incorporate gesture, then the mimetic function may be produced at the mouth along with vocalizations.

Supalla (1990), Goldin-Meadow and Mylander (1990), and Kendon (1997:120) emphasize that deaf children with limited exposure to language input have unique

capabilities to produce complexity in language output. Supalla's paper is relevant to this study in one specific way: do cuers creatively innovate and use spatial based gestures?

3.2 Introduction to Data

Answering the previous question will provide an important and unique opportunity to look at how the use of a shared manual/visual channel affects gesture production in a case other than signed languages. As seen earlier, gesture is produced manually or with vocal cords ('ummm') or with the speed and/or manner of the movement of the hands (tensed muscles) (Okrent 2000). Since gesture can appear in different forms, it is interesting to ask what types of gesture are manifested with Cued Speech. Because cuers articulate with the dominant hand, how are expressive strategies among people who use speech as the articulator different from or similar to expressive strategies among cuers?

3.2.1 Background/Data Collection

As noted earlier, the study of gestures and their relationship to languages and communication merits further examination within the system of Cued Speech. In the data I present here, there is evidence of conventionalized pairing of gestures with particular cues. These co-occurrences seem to be motivated by articulatory possibilities opened up by particular 'phonological' environments paired with more or less conventionalized gestures. For example, the cued handshake using the open palm was switched as a gesture to mean 'stop'. The notion of conventionalization of gestures

among cuers challenges the assumption that gesture is not “socially regulated” since conventionalization presupposes some degree of wide adoption.

In the following examination of how Cued Speech affects gesture production and vice versa, I am specifically interested in and focus primarily on 1) determining whether or not the dominant-hand articulation of Cued Speech co-occurs with gestures and 2) whether Cued Speech and gestures occur sequentially, simultaneously, or both. For the purposes of this study, I categorize gesture into four types: iconic, deictic, mouthing, and emblems. These observations will reveal varying strategies cuers use to employ gesture. The strategies cuers use to employ gesture are the key to understanding the relationship between gesture, modality, and language.

Data for this chapter was collected from one site. I elicited narratives from an adult using 29 pages of black and white non-verbal, narrative based drawings known as The Frog Story (1967) titled *A Boy, A Dog and A Frog*. The adult male who also knows ASL was asked to narrate the story using Cued Speech to a fellow cuer. He was selected on the following basis: He is a fluent cuer, has used Cued Speech since he was 2 years old; his mother and father use Cued Speech on a day-to-day basis in his presence and he has used Cued Speech with his peers at school while growing up.

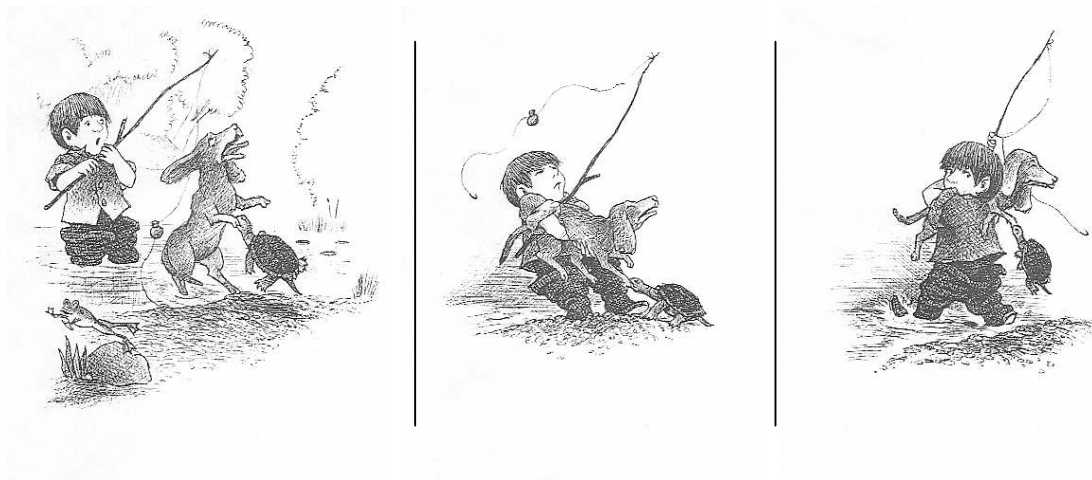


Figure 14. Selected pages from the Frog Story (reproduced from Meyer 1967)

3.2.2 Transcription and coding

I coded the gesture data using McNeill's (1992) conventions. Transcribed Cued Speech utterances are underscored. Square brackets denote that a gesture is used concurrently with Cued Speech. Dots denote static gestures and the gestures, when described, are italicized. Each gesture movement (or "the stroke") is numbered. I departed from his conventions in one notable way: words that were mouthed without cueing are in bold.

3.3 Data

Here I show data from the one cuer using gestures. Below, I will describe the cuer's use of the four types of gestures (mouthing gestures, emblems, deictic gestures, and iconic gestures).

3.3.1 Mouthing Gesture

Example 1. Allen, A, (deaf adult cuer) starts a conversation with Bob, B, (deaf adult cuer).

01 A: I remember that. I was there. I was there.

02 B: You were there? [pointing]

03 A: I remember I stayed at the hotel.

04 B: I remember I was so surprised to see so many deaf oralists because I

grew up with cueing so long that I didn't think oral would ... Oralism would not work for the deaf.

(mouthing: "you know?") I saw some deaf oralists that do well but I told them about cueing *(mouthing "you know")* so much easier to cue *(mouthing "you know")* to understand.

Here we see repetitive use of mouthing of the words, 'you know' concurrent with cueing.

3.3.2 Emblem

I show below an example of an emblem, or conventionalized gesture, used by a cuer. He said, 'I have five spoons.' The words 'I,' 'have,' and 'spoons' were cued

whereas the ‘four’ was gestured by using the 4 handshape. The cueing and the use of the emblem occurred sequentially.



Figure 15. Example of an emblem occurring with Cued Speech

3.3.3 Deictic gestures

Pointing gestures almost always occur concurrently with speech. Pointing can be used to establish a referential pronoun or tense, and to make an indexical reference to objects. Pointing identifies an object or a location. Sometimes pointing is used to denote movement paths or directions (Kendon 2004). Pointing is most often produced with the index finger and occasionally with the thumb if the referent is behind the speaker (Kendon 2004). Head movements, eye movements, and the puckering of the lips can also function as pointing gestures (Sherzer 1972; Enfield 2001 in Kendon 2004).

As stated earlier, pointing gestures almost always occur concurrently with speech. Below we see the same true for Cued Speech. At a meeting among cuers, parents, and professionals, for example, a proficient hearing transliterator cued 'Ha-Ha-Ha' with her dominant hand while she panned her non-dominant index finger across the room to note that everyone was laughing. Notice that her head and eye gaze followed the movement of her point. Deictic gestures such as this can occur simultaneously during Cued Speech production.



Figure 16. Deictic gesture co-occurring with Cued Speech

The dominant hand makes a cueing handshape (index finger and thumb makes contact while the other three fingers are open) in neutral space with palm facing the transliterator. Each cued 'Ha' makes an outward movement initiated at the elbow.

The cued production of 'ha-ha-ha' does not require changes in the handshape. The only movement executed was at the elbow which produced to-and-fro movements, thus allowing the non-dominant arm to pan. Another example below shows the transliterator

pointing at the speaker (not pictured) as she transliterates from spoken English to Cued Speech.



Figure 17. Static deictic gesture co-occurring with Cued Speech

Unlike the ‘ha-ha-ha’ pan pointing, the point is static and it informs the deaf addressees of who is currently speaking.

This is parallel to ASL. In ASL, deictic gestures serve more than one function. One function is as a “buoy” (Liddell 2003) that identifies the person speaking. This happens while interpreting from a spoken language to sign/cued and vice versa. This doesn’t happen while interpreting between two spoken languages, because individuals can already identify the speaker based on hearing, and they can also use their hearing to determine the location of the speaker

3.3.4 Iconic gestures

Iconic gestures represent objects or actions. For example, gesturing the act of starting a car with an imaginary key in the hand is an iconic gesture. In Figure 18, the

two-handed affect display gesture denotes impatience and being rushed. As the cuer resumed completing his sentence, he produced an iconic gesture using reported speech construction. This iconic gesture occurred simultaneously with the cueing of the words, ‘away from the turtle’ in the following utterance:

But the turtle has such a strong grip on his paw [pause...] so he’s continuing the struggle to [paused cueing---gesture: come-on! Or hurry] pull him

(1)

[away from the turtle.]

(2)



Figure 18. (1) Two-handed affect display gesture denoting impatience occurred sequentially after ‘struggle to....’



Figure 19. (2) Iconic gesture: Non-dominant hand clenches and pulls back. Cued simultaneously with the production of non-dominant gesture.

Using a form of reported speech, the cuer becomes the boy in the story. Immediately after cueing ‘struggle-to,’ he produces an affect display gesture denoting ‘hurry-up.’ ‘Struggle-to’ and the affect display gesture ‘hurry-up’ are synonymous; the cuer is reiterating the point. Following the ‘hurry-up’ display gesture, the cuer makes an iconic gesture denoting “pull-away’ using the non-dominant clenched fist.

In the next phrase, the cuer cues ‘away’ more slowly and larger, and unlike the previous ‘pull-away’ gesture, the iconic gesture is static yet it was produced simultaneously with an utterance in Cued Speech:

.... something [grabbed on his tail and Sue is like “ah, what is that”]

(1)

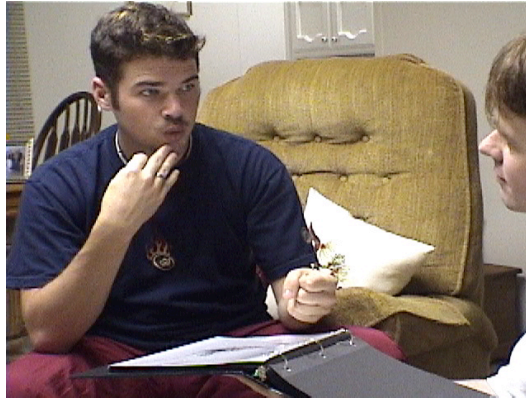


Figure 20. (1) Iconic gesture: A fist handshape denotes ‘grabbing the tail’ Non-dominant hand: static.

In the following phrase, the cuer uses the non-dominant hand to produce an iconic gesture to depict the turtle floating in the water.

Then Jim feels guilty because the turtle looks unhappy [floating on his back so

(1)

he] sees Sue the frog has sad face also and so does Bob. I think the frog has...

I mean the turtle has died....because [when you die, you float.]

(2)

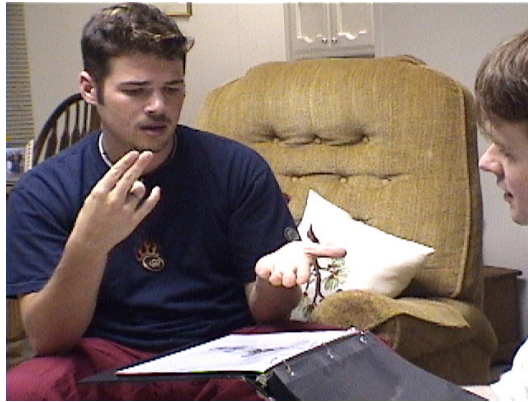


Figure 21. (1) Iconic gesture: The non-dominant palm faces upwards
 (2) Iconic gesture: The non-dominant palm faces upwards with up/down floating movement.

The non-dominant hand shows constrained motor function. For this phrase, the cuer slightly moves the non-dominant hand to resemble a turtle floating in the water.

The deictic gesture used below is an example of reiteration, a form of code-switching where one code is repeated into a different code (Gumperz 1982:78), The cuer cues the word ‘across’ while making an arc movement in mid-air with the non-dominant hand.

[he walks across...the pond][with Bob] [on his shoulders and the turtle] is on

(1)

(2)

(3)

the [dog’s paw.]

[4]



Figure 22. (1) Iconic gesture: After ‘across’ is cued, the handshape of ‘across’ becomes static (F-handshape which denotes the consonant ‘S’) while the index finger of the non-dominant hand creates an arc movement in mid-air. Just as the arc is completed, he resumes cueing “the pond.” (non-dominant index hand moves toward the book)



Figure 23. (2) Iconic gesture: The non-dominant hand moves to shoulder



Figure 24. (3) Iconic gesture: The non-dominant hand at the shoulder becomes lax/static while he cues ‘and the turtle’



Figure 25. (4) Deictic gesture: The non-dominant hand points at the book. Cues ‘is on the dog’s paw.’

As noted above, the cueing of ‘across’ and the gesture representing ‘across’ did not occur simultaneously. According to Gumperz (1982:78), “In some cases such repetitions may serve to clarify what is said, but often they simply emphasize a message.” Gumperz offers the example of English-Spanish reiteration among Chicano professionals (Gumperz 1982: 78):

A: *The three old ones spoke nothing but Spanish.* No hablaban ingles.

‘The three old ones spoke nothing but Spanish. They did not speak English.’

Though Gumperz did not consider reiteration in terms of visual/manual modality, namely signed languages, Cued Speech or gestures, his concept of reiteration is helpful in analyzing my dataset.

In the next phrase...

A: (cueing) [he walks across (gesture: across)...the pond]

First, the cuer cues “He walks across.” Then, without mouthing or cueing, he makes a pointing gesture and an arc movement for emphasis.

3.3.5 Complex gestures

The five screen captures below show further examples of the cuer narrating the Frog Story. Each photograph shows how the gesture representing ‘STOP’ is executed. The cuer cues, “So Jim is like ok---Stop! Stop! Stop!” He mouths ‘ok’ without cueing as he faces both palms outward. Almost immediately, he turns his dominant hand so the palm faces inward and cues the word ‘stop’ three times. The mouthing of the last ‘stop’ continues when the cue for ‘stop’ had already ended. This facilitates the second ‘stop’

gesture using both hands. Not cueing the word ‘ok’ allowed for the use of the two-handed ‘stop’ gesture. Had the cuer cued every word, vowel and consonant, he would have been unable to gesture in this manner.

So Jim is like [ok] [Stop! Stop! St][op!]

(1) (2) (3)



Figure 26. (1) (Emblem) Both hands palm outward as he mouths ‘ok.’



Figure 27. (2.1) (Emblem) The dominant hand flips back to cue ‘stop’ which requires the production of three different handshapes without contact on the face (this is the first

handshape of 'stop'. Handshape: index makes contact with thumb, remaining fingers are open. The non-dominant gesture hand remains static.



Figure 28. (2.2) (Emblem) The production of the second handshape 5 of 'stop' requires a slight forward movement initiated at the elbow.



Figure 29. (2.3) (Emblem) The third and last handshape for 'stop' is the index handshape to represent the consonant 'P.' It moves slightly back. He cues 'stop' by repeating the three handshapes two more times.



Figure 30. (3) (Emblem) The cues for ‘stop’ are done emphatically (bigger and slower movements). The third cue for ‘stop’ is not in synch with the mouthing---the cue for ‘stop’ ends as mouthing ‘ooopppp!!’ continues as his palm moves and shakes outward.

The gesture below was produced using reported speech—taking up the role of another person or character while talking (Volosinov 1973). As noted previously, there are four locations used in cueing; three make contact with the face, neck, and chin while the fourth location is a non-contact area approximately three inches away from the side of the mouth. The phrase, “not again!” is cued in the non-contact area. In this example, the cuer exploits this position further by extending the non-contact area away from the body. The non-dominant hand simultaneously produces a gesture that denotes frustration and emphasis. The two hands are coordinated. The place of articulation is extended and the gesture is produced in synch.

he’s like “Oh [not again!]”

(1)

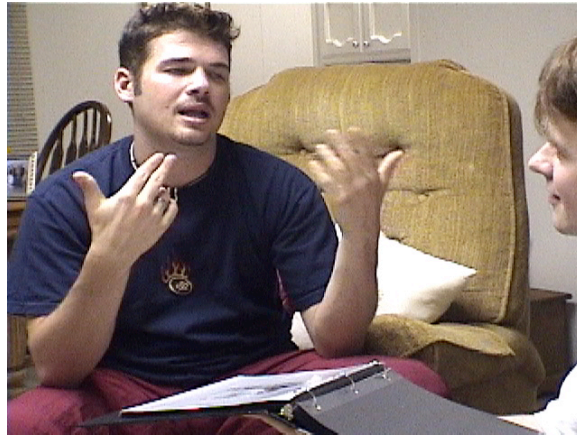


Figure 31. (Gesture: beat): Simultaneous to/fro wrist movement occurs with both hands. (The non-dominant handshape 5 (lax) moves while the dominant hand cues ‘not again!’)

Synthesis between Cued Speech and Gesture

So Jim is like, “OK...stop...stop...stop...but the turtle wouldn’t let go of his...

[finger]....Paw....Paw

(1)

In this phrase, there is a direct overlap between an iconic gesture and Cued Speech production. The cuer produces an iconic gesture with both hands to describe the turtle that is biting the dog’s paw. The iconic gesture of the non-dominant hand represents the dog’s paw while the iconic gesture of the dominant hand represents the turtle biting the paw. Quickly, the consonant F cued handshape of the dominant hand is formed at the non-dominant hand as he mouths FIN and as the hand moves toward the cheek for the vowel ‘ER’ placement, it is morphed into a handshape to represent the

consonant ‘G.’ Rather than cueing the ‘I’ vowel placement on the throat, the ‘I’ vowel placement is articulated in neutral space. The cuer also bypasses the consonant ‘N’ handshape to make the consonant ‘G’ handshape.

3.4 Discussion

Out of 8 collected from 8 cuers, I use only one cuer’s narration of the Frog Story to illustrate my analysis below. He is an adult cuer who grew up using Cued Speech from the age of two. Not once during the Frog Story elicitation did the cuer use ASL and there is no evidence of spatial based pronouns comparable to ASL, like the children in Supalla’s study. Furthermore, there was no use of spatial verb agreements among cuers.

I believe gesture is incorporated in three ways during Cued Speech production:

- 1) Mouthing without cueing to make a gesture. Example, mouthing ‘Oh.’
- 2) Gesture and Cued Speech occurring sequentially (cue → gesture → cue).
- 3) Cueing with the dominant hand while gestures of the non-dominant hand show motor constraints.

Cuers use only mouthing for some of the words possibly do so for the sake of processing continuity. This agrees with the literature regarding co-occurrence of speech and gestures as stated earlier in this paper.

When gestures and Cued Speech occur sequentially (cue → gesture → cue), the cuer did not take advantage of the linguistic resources available from signed languages. Apparently the use of three-dimensional space would disrupt the communicative continuity when cued. When gestures co-occur with the articulation of Cued Speech

using the dominant hand, the gestures of the non-dominant hand show constrained, or rather, attenuated motor functions. This is consistent with Battison's (1978) Dominance Condition—a phonological study examining the constraints of handedness in ASL and signed languages in general. This condition notes that if the two hands in a two-handed sign have different handshapes, the non-dominant hand is passive and restricted to one of the following handshapes:



Figure 32. Handshapes for non-dominant hand

Again, there is no evidence showing cuers making gestures that resemble natural visuo-gestural language like ASL.

As stated earlier, Supalla (1990), Goldin-Meadow and Mylander (1990), and Kendon (1997:120) emphasize that deaf children with limited exposure to language input have unique capability to produce complexity in language output. If visuo-gestural modalities lend themselves to use of grammatical space and grammaticalization of gesture, then we would expect to see Cued Speech following the same patterns as those found among SEE I and II users. There is nothing in my dataset that would suggest that cuers have the propensity to create and depend on the use of space in the same way as the

children in Supalla's study. Perhaps the reason is that the English that is being cued already fulfills that function.

'Stop' and 'not again' are cued in proximity to the gestures. This raises the question of whether or not cuers build a gestural repertoire to make specific gestures for specific cued utterances. Are there patterns linking the location of the cued utterance to the location of gestures, therefore explaining possible underlying processes of conventionalization? Jeannerod (1997) categorizes this as "motor schema" where "movements are grouped by a pre-determined set of commands, rather than single independent impulses.

My dataset suggests that cuers occasionally use mouthing without Cued Speech to produce what I am calling gestures. For example, in the phrase, [he's like "Oh [not again!]"], the cuer did not make the cue for the word 'oh.' I argue that it is a gesture at the mouth. Not cueing 'Oh' allowed for a two-handed gesture. While cueing 'not again!' with the dominant hand, the non-dominant hand remained in place in neutral space. The addressee can easily infer the choice of words made--e.g., Oh!.

3.5 Suggestions for further research

My examination of gesture in Cued Speech is the first of its kind since the invention and implementation of Cued Speech 40 years ago. The innovative strategies that cuers adopt to incorporate gestures while cueing may indicate specific socialization and nativization processes that are taking place---all in an effort to make Cued Speech production more "natural" and fluid. Greater understanding of the nature of

paralinguistics (including gestures) and how paralinguistics is constructed and incorporated into everyday conversations is important to the field of Linguistic Anthropology. There is still much to be learned about modality and language in general.

A more comprehensive study on the relationship between Cued Speech and gesture especially in terms of modality will deepen our understanding of the various constraints cuers have, as well as innovations cuers make during gesture production. Further research on how a shared articulatory channel imposes constraints on the use of gesture and its coordination with cued utterances should provide further insight into the role of gestures in general.

Chapter 4: Articulatory Play in Cued Speech

Cuers are a socially significant category in terms of language play ---they are interesting from a linguistic anthropological perspective in that respect because their performance, expressed using manual English at the phonemic level rather than the traditional spoken model, has never been documented before. For this reason, a study of language play in cueing addresses various questions about modality in general. In this chapter I am interested in seeing how cuers take advantage of the linguistic resources offered by both modalities.

This chapter begins with a discussion on spoken and signed language play, followed by a description and analysis of various types of Cued Speech play.

4.1 Articulatory elements of speech in relation to play

“Speech is shaped breath” (Grigely 1996). The artistry of shaped breath, or rather, speech play comes in many forms. These forms include puns, jokes, proverbs, riddles, and verbal dueling (Sherzer 2002). Sherzer’s use of the word ‘speech’ is all-encompassing to include both visual and manual modalities. However, the use of the term ‘speech play’ can be misleading as it can imply the exclusion of visual/manual modalities including signed languages and Cued Speech. The term ‘speech’ refers strictly to the articulatory elements of spoken languages. I am interested in the play aspects of formational components of language---holistically and otherwise. The term ‘articulatory’

play is more inclusive and clearer than the term ‘speech’ play as it suggests specifically the play of formational components of language.

I will not make a foray here into details about articulatory phonetics of speech. However, I will describe the various types of sound play: rhymes, homophones, pig Latin, spoonerisms, glossolalia, language crossing and play with pitch and tempo, e.g., singing.

Rhymes are words with final stressed vowel sounds that are identical. For example, ‘may’/‘say.’ and ‘house’/‘mouse.’ Homophones are words that are pronounced the same way but have different spelling and meaning, e.g., ‘no’ and ‘know.’ Also, ‘to,’ ‘too,’ and ‘two.’ Spoonerism is a play on words involving the switching of morphemes, consonants, or vowels of any given word. An example is the switching of consonants: ‘fucking nuts’ to ‘nucking futs.’ Finally, portmanteaus are fusions of two words---for example, cybernetic organism is fused into a new word: cyborg.

These are well known examples of speech play. Play can involve larger stretches of talk. Play language is the “movement of sounds and syllables with words and the insertion of sounds and sound sequences, phonological structures, patterns, and strategies...” (Sherzer 2002). Play languages are also known as disguised speech, secret codes or secret languages. One specific example is pig Latin where the initial consonant letter of any word is moved to the end of the word and the vowel sound ‘ay’ is added. For example the word ‘Pig’ in pig Latin would be ‘Igpay.’

Glossolalia is often referred to as ‘speaking in tongues’ and it occurs, for example, during worship in some Pentecostal churches in the US. When spoken, it is unintelligible.

It is regarded as a play language because glossolalia, although it cannot be understood, uses specific speech patterns.

Language crossing (or simply ‘crossing’) is the appropriation of a language variety---whether it is phonetically, lexically or even semantically different. It allows for the re-construction of one’s own identity (Rampton 2000). In other words crossing is the *intentional* borrowing of identity where “secondary representations of people, groups and languages” (Rampton 1996) are concerned. Language crossing can either be positive or negative (Rampton 1996). Negative language crossing is the intended misuse of language as an expression of bigotry---a classic example of negative language crossing is mock Spanish (see Hill 1995).

Language crossing is an example of language play; language crossings have a corollary in spoken English and ASL. For ASL, a case in point from my observations in the past: a group of American signers went to Germany on vacation. The Americans met with Deaf Germans and learned DGS. When back in the states, these Deaf Americans would at times sign certain phrases or words in DGS among themselves---as one example, they would sign, VERSTEHEN (UNDERSTAND) quite often.

Imitating the voice of a cartoon character would be an extreme example. One hearing person I know took pleasure in mimicking Elmo, the puppet on Sesame Street. According to this person’s description: “Elmo’s voice is high, and he speaks like a child, but there was also a ‘monster’ quality to the voice, sort of scratchy, like Cookie Monster.” Here, he manipulated the pitch and tempo of his voice to mimic Elmo. Mimicking a foreign accent would also be regarded as a play language.

4.2 Articulatory elements of ASL in relation to play

Glotticentrism is pervasive to the extent that “signing poetry challenges some of our cherished preconceptions about poetry and its relation to human speech” (Rothenberg, www.ubu.com). Aural speech, like the hands, is a tool of language production. ASL, like other signed languages, has the capacity to express complex, abstract thoughts and can be created in many different capacities. Many of these styles have not been fully explored or documented. Signed and spoken poetics have very different properties, which I will discuss.

In ASL (and in other signed languages), there are four key phonological parameters: movement, place of articulation, handshape, and palm orientation. It is the creative manipulation of these parameters that constitutes ASL articulation play. Rutherford and Klima & Bellugi have identified the integral role the phonological parameters play in ASL poetics (Rutherford 1993; Klima and Bellugi 1979). Within handshape, creative manipulation takes many forms. ASL has 19 classes of handshape primes; most of them contain sub-primes (Klima and Bellugi 1979). Frequently used handshapes in ASL include A, B, 5, G, C, and O. Additionally, categories of classifier handshapes refer to objects, dimensions and shape.

There are also three categories of places of articulation in ASL. They are “...signs made in the neutral space in front of the body (37 percent), signs made with one hand acting on the other (25 percent), and signs made on the rest of the body (37

percent)” (Klima and Bellugi 1979). These 3 places of articulation are generally not manipulated for poetic effect.

Movement in signed languages varies greatly. As mentioned earlier, movements are executed at various joints of the arms and hands (see Mirus, et al. 2001) and include circular movements, hand internal movement, and directional movements (Klima and Bellugi 1979). Role shifting, where the signer adopts the roles of two or more persons via slight changes in the upper body orientation is a grammatical feature especially important for storytelling and art. Facial expressions are another critical movement; they can mean the difference between a yes/no question (i.e., raised eyebrows) and WH-questions (i.e., downward tilt of the eyebrows (Liddell 1980)). As mentioned previously, ASL is a spatially dependent language where the pronouns are established in space and can be referred to with a point.

Poetic arts in ASL can be expressed in various ways. One way is to choose one of the many handshapes in ASL and create a story using that one handshape. For example, one classic story below uses the index finger of both hands consistently (in Rutherford, 1993).

#1 TWO-PEOPLE-WALKING

#2 BUMP

#3 SCOLDS

#4 INSULTS

#5 ARGUES

- #6 LEAVE IN A HUFF
- #7 HEY, YOU
- #8 COME HERE
- #9 WHO ME?
- #10 YES, YOU
- #11 COME TOGETHER
- #12 TALK
- #13 RECONSIDER
- #14 AGREE
- #15 TO BE FRIENDS
- #16 WALK-AWAY TOGETHER

Above, the meaning for every handshape corresponds with form consistently. Another example of ASL handshape play is the use of only the fist handshape while producing random narratives. The performer replaces the handshape of any given sign with the fist handshape while doing a random narrative----this is analogous to signing with a pair of boxing gloves on. The challenge is directed at the addressee---even with an unchanging handshape, the signs can be readily understood. The context, the use of non-manual markers (the grammatical use of facial expressions), the movement, place of articulation, and palm orientation all help with interpreting the meaning of each sign. A parallel to this type of handshape play is Pig Latin in Cantonese where the play is to replace the initial consonant of every syllable by /s/.

Portmanteau used in spoken languages can also occur in ASL. For example, ‘SEE-YOU SOON’ which is made with two signs is collapsed into one sign --- the location comes from SEE-YOU and the handshape and movement come from SOON.

ASL also has many examples of spoonerisms, which are different from the above portmanteaus - spoonerisms require two signs which switch something (portmanteaus are the opposite - they squeeze two words into one). One chapter in Klima and Bellugi (1979) has several examples. While Klima and Bellugi (1979) classify them as "slips of the hand," they can also be deliberate as part of language play.

4.3 ASL and English Synthesized Play

One type of ASL handshape story is the creative manipulation of fingerspelling of any given word. A classic example is the word ‘golf.’ Using the non-dominant hand, the fingerspelling letter G is turned upside down to represent a tee. As soon as the O of the dominant hand (being a representation of a ball) goes on top of the tee, the non-dominant tee turns into manual alphabet L (or a club) and swings back to hit the ball (or the dominant hand). As the ‘ball’ flies off, the handshape ‘O’ turns into the handshape ‘F’. Similar to the ‘golf’ example is a so-called ABC Story where each letter of the manual alphabet from A-Z is creatively morphed into a sign or gesture.

Name signs can also be seen as a form of play. An example comes from the recent development of a name sign for Alexander Graham Bell. As the president of the American Eugenics Association, he worked toward the prohibition of signed languages in most parts of the world (Bell 1883). Fearing that deaf people were creating their own race

(Bell 1883), he discouraged them from marrying each other. Recently, in response to his ambition to ‘integrate’ the deaf community into larger society, a name sign for him was created. This name sign was based on the initials of A.G. Bell and is a play on handshape. The handshape for the first initial, A, appears in the sign DUMB, while the handshape for ‘G’ appears in the sign for PEA-BRAINED (or TWERP), and the handshape ‘B’ appears in BASTARD. The production of the three signs (DUMB, PEA-BRAINED, BASTARD) became Alexander Graham Bell’s sign name---though it’s not lexicalized. This language play reflects the deaf community’s shared feelings about the man.

Another type of ASL and English synthesized play is this English-centered visual pun created by incorporating ASL: a faculty member at Gallaudet signed, “HAPPY NEW” and for the final sign in the phrase, the handshape Y was produced at the ear (with thumb contacting the ear). This brain-teaser play throws off the addressee until s/he figures out that it’s Y+ear.

Another example was produced by hearing students while I studied at the University of Texas: The dominant hand scratches hard the non-dominant ‘B’ handshape hand: B+itch. Other examples of this type of play include the synthesis between ASL play and English sound play---a type of play that is mostly appreciated among non-deaf signers. For example, in a non-play situation, the sign ‘milk’ is made with the dominant hand in neutral space; the fist slightly opens and closes as if one is milking a cow. In producing a synthesis between sound play and ASL play, the signer makes a movement from right to left in front of the eyes while signing MILK. If the addressee fails to figure this out, a hint is given by signing ‘PASS YOUR EYES MILK.’ The addressee,

hopefully, will recognize at some point that it's 'pasteurized milk.' Signing SILLY and BUS in lieu of spelling out 'syllabus' for which there is no sign is a kind of play most deaf people would find annoying. Often, when deaf people produce English/ASL synthesized play, it is self-deprecating or designed to mock those interested in such types of play.

4.4 Cued Speech Play

The examples above are drawn exclusively from ASL users. My intention now is to illuminate similar manipulations among Cued Speech users. Given that Cued Speech is an invented system, a valid question might be, do cuers today communicatively play and creatively juxtapose the articulatory elements available to them while cueing? If yes, would their play be more aligned with spoken languages or would their play show a stronger tendency toward being visually oriented and thus aligned more with signed languages? By addressing these questions, we can better understand how cuers create art including humor via Cued Speech, and in doing so, contribute to what is known about how language users show creativity in different modalities and how modality does or does not affect the relationship between form and meaning in communicative acts and the kinds of artistic displays possible.

Data and findings herein are drawn from my fieldwork at a summer camp that cuers attended. Ethnographic observations and video recordings of day-to-day interactions among cuers in a natural setting were the two main data collection techniques used. A small amount of my data are drawn from interviews outside of the camp. Five

hours of video recordings come primarily from one summer camp in 2005 (See Chapter 1 for details). Videotapes were edited into smaller segments for analyzing; edited clips were transcribed for further analysis using methods conventional in linguistic anthropology, namely the analysis of conversation and linguistic analysis. A fluent adult cuer who has used Cued Speech since age 24 months transcribed the tapes. I examined the tapes looking for examples of Cued Speech play.

After analyzing the data, I recognized six categories of Cued Speech play, three that relate to spoken English and three that relate to ASL. I will define, analyze, and draw conclusions from the six categories of Cued Speech play in two sections, English-related and ASL-related.

4.5 Cued Speech in Relation to Spoken English

I identified three general categories of Cued Speech play that relate to English: 1) language crossing and how cuers can appropriate regional dialects and accents, 2) how cuers produce rhymes during Cued Speech production, and 3) cued singing. These categories were easily identified based on their strong likeness to their speech counterparts.

4.5.1 Cued Speech and Language Crossing

One of the basic premises of Cued Speech is that words are cued the way they sound in spoken languages. For most deaf cuers, hearing individuals---namely parents, educators, siblings, and/or transliterators---serve as their model for Cued Speech

production. As a result, cuers literally see accents and regional dialects when they meet cuers who were raised abroad or live in different parts of the country. This is one way in which language crossing (Rampton 1996) can be made possible via Cued Speech. With regard to Cued Speech, I recall observing an American cuer meeting a British cuer in Austin, Texas for the first time. While they conversed using Cued Speech, the American cuer at times translated into ASL to help me follow their conversation. Occasionally during their conversation, the American cuer smiled---I learned later that he took much pleasure *seeing* a British accent---it was novel to him. At one point during their conversation, they discussed how each would make the cued production for the word ‘water.’ The deaf American cuer cued, /wah-dur/ (side to cheek) while the British cuer cued /wo’tuh/ (side-side). They both used the same handshape for ‘water’ but the vowel placement differed. After an hour, the American cuer made attempts to cue with a British accent; he was playing with identity and sound/sight difference patterns. This experience can happen among cuers when they observe regional dialects. A cuer from Texas, for example, who meets someone from Boston will notice regional dialects in words like ‘car’ where the phoneme [r] does not appear.

Language crossing via Cued Speech is not only a difference at the level of articulation that becomes central in terms of the meaning of an utterance (various phonemes being distinguished and decoded) but also sameness in that one cuer imitating a particular phoneme in a particular context becomes the subtext and that in itself is what the conversation is all about. Interestingly, language crossing happens here across modalities. A regional dialect is reproduced visually, whereas in signed languages, we

see visual regional dialects that do not have a clear relation to the surrounding spoken languages.

Similarly, in an interview, a cuer shared a story about his first realization that spoken English can index social class. While a student at an elementary school communicating with his classmate using Cued Speech, he learned to use “double negatives” (e.g., “I don’t want nothing”) and words including ‘ain’t.’ When he used the new words he learned with his mother, she taught him that these words are not “standard” English. His unwitting language crossing using specific working-class words (and the subsequent ‘correction’ by his middle class mother) shows that Cued Speech allows such flexibility.

4.5.2 Cued Speech and Homophones

In Figure 33 are two photos of Albert Einstein featured on a t-shirt. Under one photo, a subtitle reads, “High I.Q.” Under another photo of Einstein with protruding tongue, the subtitle reads, “Hi, I cue!” “Hi IQ” and “Hi! I cue!” are both pronounced and cued the same way. The handshape representing the consonants /ch/ /y/ and /ng/ was added to the photo. The vowel placement represents three possible vowel sounds: /aw/ /e/ and /ue/. Words like ‘sea’ and ‘see’ are also cued the exact same way. Only grammar and context will help make distinction between the two words. A speech oriented joke, for example: Person A: “Do you like seafood?” Person B: “Yes.” Person A opens his mouth to show chewed up food. This joke, common among English speakers, can also work when cued.

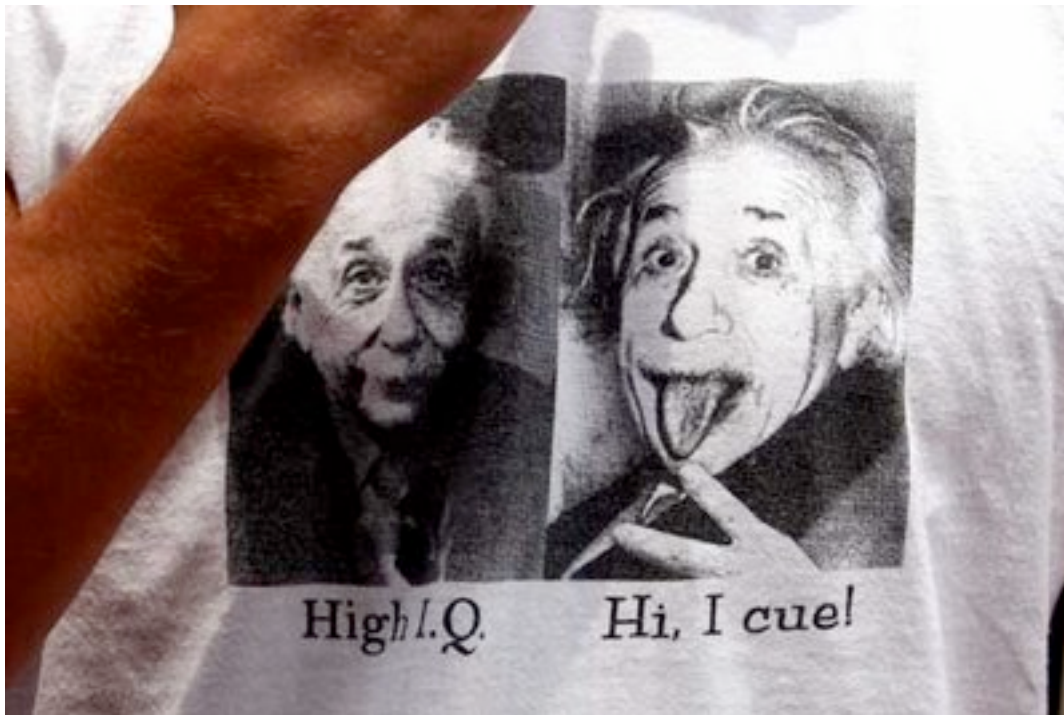


Figure 33. Photograph by Jeff Majors (2006)

Homophones, words that share the same sound but have a different spelling and meaning, can be expressed via cue. For example, young cuers can appreciate jokes like, “What illness do retired pilots get? Flu” or “What does the garden say when it laughs? Hoe, Hoe, Hoe.” Another example in which sound oriented play can be appreciated by cuers: “Steven, you have acute appendicitis. I came here to be treated, not admired doctor.” (J. Greenald, www.englishresources.co.uk). Other examples include the lyric by The Smiths, a British pop band (((in the song titled “How Soon Is Now,”))) “I am the son, and the heir” (homophones: son/sun and heir/air).

4.5.3 Cued Speech and Rhymes

While interviewing an adult cuer, I asked him to read and cue *Hop on Pop* by Dr. Suess, a plotless rhyme-oriented book aimed at very young readers. It was cued with ease; rhymes can be noticed visually, whereas, when translated to ASL, the artistic effect in Dr. Suess's writing is lost. Recently I asked the same adult cuer to read to me *Hop on Pop* but this time, I videorecorded him. Through discussion with him, it is clear that through rhymes, cuers can appreciate the visual repetition of manual movements and handshapes. In other words, the cued production of the words 'hop' and 'pop' creates a visual rhyme. The writer's intent, in terms of content and play, is not lost when cued. The handshape for the consonants 'h' and 'p' are different; however, the movement and the vowel placement remains the same.

4.5.4 Cued Singing

In 1976, the Model Secondary School for the Deaf (MSSD) in Washington, DC established a program called Artistic Cued Speech with hopes of providing students with an alternative to traditional speech training methods. Students, regardless of how much they could hear, could select any song and practice singing voiceless or not while cueing. Reciting poems was also encouraged. This approach was seen as an incentive for students to work toward improving their speech. Cornett, on tape, demonstrated the artistic flexibility of Cued Speech by including black and white footage of a young student from MSSD, a participant in the Artistic Cued Speech program. Beginning footage showed her singing a song with her own voice while cueing simultaneously and later footage showed

her lip-synching and cueing the same song as recorded commercial music played in the background. The performance in this tape shows her use of prosody. The movements are slower and more exaggerated than one would see in cued conversations.

During interviews and discussions with several cuers, I learned that there were performances at the summer cueing camp in Utah where two campers perform bilingual songs: one person cues the song in English while the other person translates the song into ASL. After each stanza, they switch. Their performance is used as a means to show support for bilingualism, to promote social acceptance toward Cued Speech and to show that Cued Speech holds capabilities for artistry---for example, most Deaf people who use ASL would have never thought Cued Speech capable of encoding prosody or visual rhyme.

4.6 Cued Speech in Relation to ASL

I identified three categories of Cued Speech play that relate to ASL: 1) how cuers playfully change palm orientation while cueing, 2) cueing with one handshape, and 3) cueing without the use of mouthing.

4.6.1 Cueing by changing Palm Orientation

The palm orientation during the articulation of Cued Speech is always in mid position with the palm facing the cuer. A group of teenage deaf girls at a summer camp that I attended for one week took the liberty of ‘violating’ standard cueing by changing

the palm orientation. In jest during a lively multi-party conversation, they reversed the palm orientation by making the palm face the addressee while cueing.



Figure 34. Changing palm orientation in Cued Speech

Their interaction overlapped

- 1 B: you are eating watermelon (to c)
- 2 C: nods
- 3 A: is it good?
- 4 C: (starts to cue—drops hand. (false start))
- 5 A: no, I hate watermelon. It's disgusting
- 6 B: You hate it? [LH:CL-idx]
- 7 B: You hate it??? [LH:CL-idx]
- 8 A: it's disgusting
- 9 B: you are crazy!
- 10 A: it's gross
- 11 B: don't talk to me!

12 A: unclear B: watermelon hater!

Their performance posed, at most, a slight challenge to the addressee's comprehension ---the challenge is rather directed more toward the cuer, given that the articulation takes more effort to produce. In other words, it is a challenge of competence. Changing the palm orientation does not affect the meaning of cued words.

4.6.2 Cueing With One Handshape

The sentence 'I MIGHT TIE MY TIE TIGHTER' when cued, is an example of play based on a single handshape. This is much like the single handshape ASL poetics as discussed earlier in this chapter. The same handshape used all throughout the phrase 'I MIGHT TIE MY TIE TIGHTER' requires all fingers including the thumb to be extended and the consonants for this handshape are /m/, /f/, and /t/. Also, the three sentences below only require the use of one handshape with various placements around the mouth.

I aim to eat my meat. I aim to meet my meat. I aim to eat my feet.

4.6.3 Cueing Without the Use of Mouthing

In another type of play in which the comprehension of the addressee is challenged, the cuer cues without moving the lips. The role of the lips during Cued Speech production is essentially that of mouthing. It does not function as speech since the

voice isn't used. Mouthing during Cued Speech production helps clarify which vowel sound is used when the hand makes a placement.

This type of Cued Speech play could very well be regarded as a play language. It is the “movement of sounds and syllables with words and the insertion of sounds and sound sequences, phonological structures, patterns, and strategies” (Sherzer 2002). Play languages are also known as disguised speech, secret codes or secret languages. In the case of Cued Speech, it is the omission of the use of one of the three parameters--- mouthshapes. Hearing or deaf cuers who learned Cued Speech at a much later age often depend on lip movements to decode Cued Speech articulation. Cuers who had exposure to Cued Speech since infancy, on the other hand, tend to be fluent in deciphering the code. This is comparable to the Semitic orthographies (e.g., Arabic and Hebrew) that leave out vowels.

Two middle school-aged girls (one is deaf and the other is hearing) sat together on a couch in a dormitory. They carried on a lengthy conversation and at one point, the deaf cuer began to cue to the hearing girl without mouth movements. The hearing girl responded without using mouth movements as well.

- 1 A (deaf): are you married?
- 2 B (hearing): What?
- 3 A (deaf): Are.....you.....married? (with emphasis placed on movement)
- 4 B (hearing): Oh yah, I am.
- 5 A (deaf): C'mon.

6 B (hearing): Well, I think I will.

7 A (deaf): Sure

From line 3, it is clear that the hearing girl lacked cueing fluency when compared with the deaf girl. The struggle with comprehension on the hearing girl's part was evident yet they enjoyed the game of decoding from time to time throughout the week at the camp.

In the photograph below, a cuer cues on the addressee. This means the cuer, using her non-dominant hand, cues from behind by using the vowel placements on and around the addressee's face. The addressee who is in front of the cuer uses her peripheral vision to read the cues without being able to look at the cuer's use of mouthing. This is similar to the face-to-face communicative Cued Speech interaction without the use of mouthing as described earlier.



Figure 35. Cued Speech without mouthing

1 b:doing
2 f: Good
3 b: This is really weird
4 f: What?
5 b: This is really really weird, weird
6 f: Yes
7 both: [laughing]
8 b: (facing each other) I was telling him that native cuers tend to
cue really fast and he was like how people understand each other?
I'm like [gesture] we're native....so
9 f: [head nod] Right
10 b: Yah

While this is not face-to-face interaction, it is somewhat similar in that the addressee has to be skilled at deciphering cued codes without depending on mouthshapes.

In some situations, cuers may refrain from using the lips while cueing to deny non-cuers access to what is being said. An adult deaf cuer at the camp shared a story with me. She knows both Cued Speech and ASL; her husband knows ASL but can recognize and use a limited set of words using Cued Speech. They were at an all-signing party. At one point, the wife who was ready to leave cues subtly without mouth movements to the husband, "Let's go." They promptly gave their farewell and left the scene. Here, the couple used Cued Speech without mouthing to be discreet---their use of a 'secret code' as Sherzer (2002) would have put it, proved to be effective.

Another account makes a similar point. Without using mouth movements, a hearing camp activity leader cues one by one a list of different blockbuster Hollywood movie titles. Cuers, hearing and deaf, fluent and non-fluent, had to decode what the camp activity leader was cueing. They fared well until one word came up. This word required a double tap on the cheek (vowel sounds that are represented identically in cueing: /ee/ and /er/) using one handshape that represents the set of consonants /t/, /m/, and /f/. The cuers tried to decode---in an attempt to solve or decode, they cued all of the possible words: METER, TEEME, TERMER, TEETER, etc. After a long struggle to solve it, they learned that the film title was E.T.

4.7 Conclusion

This chapter analyzed the linguistic repertoire of deaf cuers in order to examine how cuers creatively play with the articulators used in cueing. The findings in this chapter suggest that Cued Speech parallels signed languages and speech at different levels. Cued Speech, from my dataset, strongly parallels spoken English in several respects---both represent English, but each uses a different set of articulators. Cueing and spoken English are similar in that both can be used to convey foreign accents, rhymes, homophones, nonce words, and prosody.

Cued Speech and ASL, both being visual/manual oriented, share similarities by playing with formational components, e.g., the use of only one handshape. Also, the

changing of palm orientation while cueing has no direct parallel with ASL but the fact that the play is visual/manual oriented and has no direct bearing with spoken English makes it 'similar' to ASL in that regard.

Chapter 5: Conclusion

For this dissertation, I have focussed to a large degree on *describing* cuers' linguistic repertoire. By *describing*, I have used the ethnography of communication to look at how Cued Speech is being practiced among cuers. In examining cuers' *ways of speaking* or more appropriately, *ways of cueing* and by looking specifically at the cuers' articulatory changes as well as external influences, e.g., spoken English and ASL, I have developed a premise for explaining the shift from an invented form of Cued Speech to a more fluent form of Cued Speech.

The invention and implementation of Cued Speech can hypothetically be viewed as an unintended longitudinal experiment to look at how deaf children manage to acquire and use a one-handed manual articulation system that represents speech. Studying cuers and how they use Cued Speech has much potential in making contributions to various disciplines including psychology, sociolinguistics, and anthropology. In this dissertation, I have not only drawn on one type of linguistic anthropology framework deemed as ethnography of communication (Hymes 1972), I have also drawn on suggestions from psycholinguistics in order to look at motoric changes in the way cuers articulate using Cued Speech (Chapter 1) and how cuers incorporate gestures (Chapter 3) during the production of Cued Speech.

In this chapter, I will first summarize Chapters 2, 3, and 4 of this dissertation. Then I will briefly address a question I raised in Chapter 1 that asks whether or not the

findings I presented in this dissertation parallel findings on nascent signed languages. Herein I also discuss remaining issues about cuers and Cued Speech that deserve to be explored in the future. The last part of this chapter looks at how my “bag” of methodological tools can be applied to other linguistic groups.

5.1 Summary of Chapters 2, 3 and 4

The goal of Chapter 2 of this dissertation was to examine whether or not there is evidence that cuers diverged on different levels of articulation. I asked whether divergences shown by deaf cuers started to resemble linguistic practices used among signers. Cuers make several types of articulatory adjustments. Early and increased Cued Speech fluency results in the reduction of cueing space and in some cases, the distalization of the joint (e.g., using the wrist instead of the elbow). In contrast, those who learn to use Cued Speech as adults show slower and more gross movements. Findings in Chapter 2 are parallel with studies regarding articulatory adjustments in ASL (e.g., Mirus, et al. 2001; Fischer 1975).

There is no known study on the use of space and gestures by those who use Cued Speech. Thus, addressing such questions allows for a better understanding of the interaction between gesture and language. Chapter 3 of this dissertation, which looks at how gestures are used among cuers, reveals no evidence that cuers use spatial based pronouns and verbs comparable to ASL. Chapter 3 also reveals that gestures are used during Cued Speech production in any of three ways:

- 1) Mouthing without cueing to make a gesture. Example, mouthing ‘Oh.’

- 2) Gesture and Cued Speech occurring sequentially (cue → gesture → cue).
- 3) Cueing with the dominant hand while gestures of the non-dominant hand, showing motor constraints.

Nothing in my dataset showed any evidence comparable to Supalla's (1990) finding that children creatively used space while using manually coded English.

Regarding the relationship between modality, gesture, and language among users of Cued Speech, I asked if Cued Speech affects gesture production and vice versa. I also explored how a shared articulatory channel imposes constraints on the use of gesture and its coordination with cued utterances.

When gestures and Cued Speech occur sequentially (cue → gesture → cue), the cuer does not take advantage of the linguistic resources available from signed languages. Apparently the use of three-dimensional space would disrupt the communicative continuity when cueing. When gestures co-occur with the articulation of Cued Speech using the dominant hand, the gestures of the non-dominant hand show constrained, or rather, attenuated motor functions. Again, there is no evidence showing cuers making gestures that resemble a natural visuo-gestural language like ASL.

As stated earlier in this paper, Supalla (1990), Goldin-Meadow and Mylander (1990), and Kendon (1997:120) emphasize that deaf children with limited exposure to language input have a unique capability to produce complexity in language output. If visuo-gestural modalities lend themselves to the use of grammatical space and grammaticalization of gesture, then we would expect to see Cued Speech following the

same patterns as those found among SEE I and II users. There is nothing in my dataset that would suggest cuers have the propensity to create and depend on the use of space like the children in Supalla's study. Perhaps the reason is that the English that is being cued already fulfills that function.

Chapter 4 of this dissertation analyzes the linguistic repertoire of deaf cuers in order to examine how cuers creatively played with the articulators used in cueing. Findings in chapter 4 suggest that Cued Speech parallels both signed languages and speech. Cued Speech parallels spoken English in several respects---both represent English, but each uses a different set of articulators. Cueing and spoken English are similar in that both can be used to convey foreign accents, rhymes, homophones, nonce words, and prosody.

Cued Speech and ASL, both being visual/manual oriented, share similarities by playing with formational components, e.g., the use of only one handshape. Also, the changing of palm orientation while cueing has no direct parallel with ASL but the fact that the play is visual/manual oriented and has no direct relationship with spoken English makes it 'similar' to ASL in that regard.

5.2 Nascent Signed Languages vs. Cued Speech

With a brief review of research on nascent signed languages in Chapter 1, I return to Cued Speech to describe how cuers compare and contrast with studies on sign language emergence. Cuers' experience differs dramatically from the emergence of Nicaraguan sign language in one respect: Cued Speech did not emerge independently—it

was invented by Cornett and was used by educators with deaf children. The impetus for language emergence in Nicaragua stemmed from the fact that there was a critical mass of deaf children who were placed together at a school among hearing teachers who did not sign. Deaf Nicaraguan children, in response to the need for increasing effective communication among themselves, began to standardize the homesigns and this ultimately led to the formation of Nicaraguan Sign Language.

In looking at the sign language emergence situation in Nicaragua, it seems plausible that signed language emergence happens in response to linguistic stigma. In stark contrast, the Bedouins and the Vineyarders, given the high incidence of deaf people within the community that use sign language to some degree, apparently experience much less linguistic stigma thereby lessening the need for the emergence of a deaf community. Their situation, in turn, gave little or no impetus for a full-fledged sign language emergence and development.

I argue that cuers are in some ways, aligned more with the Bedouins and the Vineyarders. Hearing cuers play a significant role as models for the production of Cued Speech and this alone could have slowed the change in the communicative practices among deaf cuers. Had there been a greater critical mass of deaf cuers who congregated and communicated on a regular basis, and had there not been any influence from hearing cuers, we would likely see greater changes in the cuers' linguistic repertoire. In other words, deaf-hearing cueing interactions are, as a whole, well-integrated thereby lessening the impetus for deaf cuers to move in their own direction linguistically.

5.3 Remaining Issues and Directions for Future Research

Ethnographic studies of language practices involve describing language in its social setting, understanding the range of language activities within a society, and looking at how language is actually performed (Bauman and Sherzer 1974; Gumperz and Hymes 1972). Ethnographic studies that look at the communicative situation--especially idiosyncratic aspects of communication among cuers--are, thus far, under-represented. For example, further examination of various phenomena that cuers as conversationalists use to make communicative adjustments is needed. This can help to better understand the role of external influences, e.g., contact from ASL and spoken English. For future research, more studies could look at cuers and the various communicative strategies they employ. For example, future studies could expand on the preliminary findings that I will describe below, including how cuers produce emphasis while cueing, how cuers adapt to communicating with one another using a videophone, how cuers use filler words and feedback, e.g., umm, and how cuers use interjections. Below are several preliminary findings requiring further research.

One of the paralinguistic features that I observed among cuers at both camps that I attended is the use of emphatic stress. I've noticed two forms of emphatic stress. One form is the use of both hands simultaneously while the other form is accomplished by producing larger cued movements and making abrupt pauses while cueing (Fleetwood & Metzger, 1998).

01 Lynn: OH (.) MY (.) GOD (.) oh.my.god

02 Lynn: ...the sub teacher said, "do you need help to read and write your name?"! And I was GT gifted and talented class! And I got really mad, but my interpreter calmed me down...cuz it hurts my feeling that she thinks I can't read and write.

The above is a comment made by a 12-year-old girl at a Cued Speech camp. OH...MY...GOD was made larger, slower and stiffer. "And I was GT gifted and talented class!" was produced with increased tempo to go along with a stern facial expression.

Other paralinguistic aspects of communication include the place-holder where one pauses in search for a word. An example of a place-holder that I have seen used frequently among cuers is 'umm.' The cued 'umm' is produced in neutral space without contact on the face. The handshape can be described as an open-B meaning in that all four fingers are open and in contact with one another while the thumb is extended. When 'umm' is cued, the palm faces the cuer and a slight to and fro movement is produced at the elbow. Below, an eight year-old girl makes a comment in front of a large audience about her experiences with Cued Speech.

01 Girl: ...so different. my parents started signing to me but that didn't do any good to me. So they learned how to cue (1.0) learned how (.) how to cue and umm (.) [end of clip]

Here we see she was losing her train of thought and as a result, she cued ‘*umm*’ as would any hearing child or adult via speech. Though she stated that her parents signed to her briefly as a child, she is a non-signer.

There have been a number of instances where I have seen deaf adult cuers wiggle their fingers in lieu of cueing ‘*umm*.’ Interestingly, the wiggling of fingers is the gesture used among ASL signers to denote “tip-of-the-tongue” moments. Those cuers who wiggled the fingers have had substantive exposure to ASL, hence the gesture may be borrowed from ASL.

One type of interjection that caught my attention is cuers’ use of ‘*ha-ha-ha*.’ The cueing of ‘*ha-ha-ha*’ seems unusual to me as it didn’t seem to always fit the context in the same way that native English speakers use it. Cuers cue ‘*ha-ha-ha*’ to denote that something is funny. But one would have to ask if ‘*ha-ha-ha*’ produced with a subtle trill movement at the elbow had a different meaning from ‘*ha-ha-ha*’ produced with the regular to/fro movement.

At other times, deaf interlocutors cue ‘*ha-ha-ha*’ at the end of a phrase. In some instances, ‘*ha-ha*’ for cuers seem to have taken on its own meaning as in “This is funny!” At other times, the cued ‘*ha-ha-ha*’ goes along with a literal laugh which almost seems redundant. Hearing cuers, from my observation, show more of a tendency to cue ‘*ha-ha-ha*’ along with a literal laugh as if deaf cuers need enhanced visual access to laughter.

01 Bill: He wants some more likuh (.) Likker likker likker

likker (liquor liquor liquor) TONIIIIIGHT Ha Ha Ha
Ha

02 Sue: That's so funny

03 Bill: Hey, aren't I?

04 Sue: Always

In watching footage I collected from Cued Speech camps and as noted in the transcript above, Bill who is a deaf non-signer cued 'ha-ha-ha' while he was laughing. At other times, cuers cue 'ha-ha-ha' as a back channel cue to mean: "That's really funny."

When hearing people say, 'ha-ha,' it tends to be expressed with sarcasm and they're not laughing, e.g., "Ha-ha, very funny." In ASL, the fingerspelled lone *HA-HA* tends to be used in sarcastic contexts like "Yeah, right!" or "Yeah, you are kidding me."



Figure 36. Cueing HA-HA

The dominant hand makes a cueing handshape (index finger and thumb make contact while the other three fingers are open) in neutral space with palm facing the transliterator. Each cued 'Ha' makes an outward movement initiated at the elbow.

In the figure above, a transliterator cued, “Ha-Ha-Ha” to denote that other people in the room were laughing. What is interesting to me is that the transliterator imitated the sound of laughter rather than using words to describe action, e.g., “They are laughing.”

Another possibility for future research is the examination of how cuers negotiate the use of videophone technology. With regard to ASL and videophones, one study examined how technology reshapes many cultural practices, specifically the ways in which new videophone technology has contributed to new language practices among Deaf users (Keating and Mirus 2003). This study showed that signers altered communication practices by limiting sign space, changing how signs are produced, reducing signing speed, and increasing repetition by producing several variants of the same message. Deaf videophone callers exploited new possibilities for communicating messages, created new forms such as the technological transformation of the size of the hand (moving it nearer to the camera) for emphasis and clarity. The study noted that the two types of space, two-dimensional virtual space and the space required for signed production were intertwined, and the study showed how videophone participants engaged in an ongoing negotiation between technology and language use. Like the videophone study, the examination of signing within constraints of driving and riding in a car (Keating and Mirus 2004) provides understanding in the ways that signers innovatively adapt to different spatial situations. The moving car is far from an ideal signing environment. Signing drivers and passengers make accommodations and exploit certain aspects of the car in interesting ways and alter some of the ways they produce sign conversations. They shift the position of the body, use reflected images, use interior car

surfaces, and share responsibility for the role of attending to the road ahead. Studies such as this further validate the richness and complexities of sign modifications that signers can make in various communicative situations.

In my preliminary study, two cuers used the same technology as signers in the Keating, et al. (in press) study in which a videophone device was connected to a TV using a broad bandwidth internet connection. For both cuers, negotiating time with the technology was rather seamless as they both were familiar with the videophone prior to the recording. The way that cuers position themselves in front of the camera is different from the way that signers do.



Figure 37. Two cuers in a videophone conversation (their complete torsos are not shown)

The two cuers show a strong tendency to take up a rather large portion of the screen. Unlike ASL, cued placements are all near the mouth thereby eliminating the need to show the entire torso.

Other issues of interest about Cued Speech that deserve to be explored in the future should include the study of how deaf children acquire Cued Speech. Given that the articulation of Cued Speech requires constant use of very precise hand movements, what challenges do very young deaf children face in the production of Cued Speech movements and handshapes? Handshape formation, in general, is hard for children learning ASL and other signed languages (see Meier 2006).

Other issues to be explored: Cuers in the US rarely have regular contact with cuers abroad. How does the communicative repertoire- among cuers in Belgium, France, Australia, and other places differ and compare with American cuers?

5.4 Methodological Tools be Applied to Other Communities

My “bag” of methodological tools in this dissertation included the use of ethnography, interviews, and story elicitations. These tools have been particularly useful in understanding the linguistic experiences of cuers in the United States. In continuing to use the tools that I have, I am interested in gaining a greater understanding of how other marginal groups (e.g., deaf people confined in prison, non-signing deaf people, deaf people of color) within the larger deaf community take advantage of various linguistic and para-linguistic resources for the purposes of communication and how they creatively incorporate them in their communicative interactions among themselves. This leads to more questions and to exploring subtle differences in the style of interaction among the marginalized groups. How do the particulars of their repertoire constrain processes of identity formation vis-à-vis interaction with the majority, e.g., white, heterosexual, fluent

ASL signers to whom much research has been devoted? I feel that it's extremely important to document not the actual differences in language use, but the style of interaction that defines particular dimensions of communication. The study of communicative practices of a given marginalized group within the larger deaf community would not only help with understanding how such groups manage their linguistic repertoire but also contribute to a better understanding of what we know about the cultural organization of conversations (Gumperz 1997; Goodwin 1981), gestures (McNeill 2000; Kendon, 1982), and language play (Sherzer 1987, 2002; Bauman 1986).

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