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Final Paper

Digging Deeping
Sign Language and Semiotics

Abstract

This paper is to show the understanding of semiotics that I have learned throughout the semester through the topic of Sign Language. This paper will dive into the semiotic side of Sign language and how the language relates to the semiotics. Topics such as name signs, natural language, medical and cultural, hearing vs. deafness, communication, gesture, semiotic analysis of SL, and the brain are explained throughout the paper.

Introduction

Sign Language over the past decade or so has become more and more popular for hearing people to learn to communicate with the Deaf community. For the Deaf, communicating with more people who are educated on the language the better they can communicate with the world. Here we are going to look at the semiotic side of Sign Language. A person who studies semiotics is known as a semiotician. Signs and gestures are the biggest elements of semiotics.

What Sign Language is

Sign language is a language used for the deaf to communicate with the world. It isn't like any other language because it is not a spoken language this language is used through signs and hand gestures. The grammar and order of how a sentence goes in American Sign Language is different from the English language. When learning sign language, it is the easiest for it to remember when learned as a young child. The originate of the language is interesting because there is not one single person who came up with it but researchers believe that it arose more than two hundred years ago. Sign language can be defined as a langue because it has a vocabulary, grammar, but it is missing the sound system aspect of langue. (1)

The people who use sign language for the most part are people who are deaf. Other people who use sign language are people who cannot communicate verbally, such as if they have a disability. Other people who use sign language are people who are translators who help the Deaf community communicate with the hearing world and vis versa. The last group that learns it are ordinary people who have a love for the language and want to be able to communicate with the deaf. ((1))

Finger spelling is an important aspect of semiotics because it is a conventional sign. It is a conventional sign because it is the simplest way humans can interact when they don't know the sign for a given word in sign language. This helps humans communicate better between the hearing and deaf world. ((1))

Spoken language compared to sign language has many different parts to it. For one sign language is a gesture [[16]] language and spoken language is a verbal language. "It contains all the fundamental features of language, with its own rules for pronunciation, word formation, and word order. While every language has ways of signaling different functions, such as asking a question rather than making a statement, languages differ in how this is done. For example, English speakers may ask a question by raising the pitch of their voices and by adjusting word order; ASL users ask a question by raising their eyebrows, widening their eyes, and tilting their bodies forward." ((1)) This is important because this gives context [[7]] to how sign language operates.

Signs

Signs is (obviously) the biggest part of sign language. A sign [[51]] is something that stands for something or someone else in some capacity. Signs are all around us and we may not even realize it. An example of this is in a shower the 'c' for cold and the 'h' for hot. Another example is a traffic light. Each color has a meaning and if not followed issues arise. (2)

This is what sign language is all about. A given hand gesture [[8]] and facial expression has a meaning to humans who understand the language. To someone who doesn't understand the language the gestures have no meaning behind them.

Signs in general can be anything that stands for something in sign language a specific sign has a specific meaning to the hand and face gesture. Nonverbal communication can be used in a spoken language. Something such as an eye roll, a shrug, a wave of the hand. Someone doesn't have to know sign language to be able communicate nonverbally. ((2))

Sign Names

A sign name is another important aspect of sign language. A sign name is sign (hand gesture) that has the meaning of a person's name. A sign name makes it easier when communicating in sign language, so a person doesn't have to spell their name out every time they are talking about them. The name that is given to someone is normally based on a person's character. "It can take days to months for a deaf person (or community) to assign you your special ASL name." ((3)).

For a hearing person a deaf person gives them a sign name. "If you have a great sense of humor or bubbly temperament, your name sign may be something like "Giggle" or "Sunshine." Your name sign may signify an interest or your occupation, like "Dance" or "Writer," or it may be characteristic of a physical feature, like "Curly hair" or "Beard." There really is no limit or boundaries when it comes to receiving an ASL name." ((3)). Someone wouldn't get a bad sign as a sign name. Sometimes someone gets a basic sign name which is just the first letter of their first name. Other times if someone has curly hair, they use the sign for curly hair and that is their sign name.

A sign name is important because it helps someone identify someone else quicker, usually they will spell their name then use their sign name, so they know what that person's sign name is. This is a referential function [[43]] because the sign name as some connection to the person.

After that it make it easier in conversation or to tell someone they are trying to talk to them. Although sign names are an important aspect of sign language people who have short names don't always have a sign name because it doesn't take long to spell out their name. The denotation [[9]] of names here is the person's birth or given name. The connotation [[6]] of someone's name is their given sign name.

Natural Language or Not

A natural language is a language that has developed in naturally use. People may believe that it is a natural language because "I find out that it fits every property, feature, and function where labeled "Y", which seems to me that it must indicates sign language is a kind of natural language." ((4)). When a child is born with deaf parents, they grow up with sign language as their native language just as if someone who grew up learning English from their parents. "Unlike other gesture sign like flag signal, sign language is way more sophisticated and seems to have consistence one-to-one match between spoken language and sign gesture." ((4)) "sign language has very strict combinatory rules and generative rules of itself, which makes it fits the UG and a systematic language, like English or Chinese. Therefore, sign Language is not common gesture, which, even can be understand by people, doesn't count as sign language, or language itself. Without constrict rules (syntax), gesture are just random lip reading and gesture mimicking." ((4)).

Although people believe that sign language is a natural language there is study to show that it is not. From Peirce's mode it was shown that sign language is recognized as an icon symbol [[20]], or index symbol [[23]] at least. "natural language is a collection of different languages. If we count sign language as one of the natural language, what is ASL (America Sign Language) and CSL (Chinese Sign Language) then? Dialect? Apparently not, since they are not only phonological different but syntactical and lexical different." ((4)). "sign language seems failed to fit Jackendoff's Parallel architecture as well as processing architecture. Lacking the hearing interfaces, does that require a new structure of processing system? Or new interfaces rules that doesn't apply to ordinary people? Will the processing system change to hierarchical or still parallel?" ((4)). These questions that have been raised have shown that sign language can't be a natural language.

Sign language is seen (based on this article) to be an (Rhematic) iconic sinsign or a (indexical) dirent sinsign. In this case, sign language, as in my point of view, is not "fundamentally arbitrary or purely conventional", but "resemble the signified" ((4)).

Medical vs. Cultural

There are two types of people when it comes to this topic, one type are people who believe that being deaf is a medical condition and the other is people who believe sign language and being deaf as being a part of a culture.

The medical view on being deaf "Doctors almost always have a hearing perspective of deafness and look at it as a disability, impairment, or handicap to be treated. Almost invariably, medical specialists propose treatment such as hearing aids, cochlear implants, auditory brainstem implants, or speech therapy in order to help deaf individuals to get along in a hearing world."

((5)). Doctors believe that being deaf is seen as an issue that needs to be fixed, they don't believe someone should not be able to communicate with the hearing world. (That is to say for most, not all doctors). Deafness is described as hearing loss, and they are diagnosed as being deaf from a medical view of deaf.

The cultural view has a whole different view when it comes to being deaf. "Deaf culture focuses on the strengths rather than the weaknesses of deafness and sees deafness not as a disability but as a linguistic minority." ((5)). Being deaf is not an issue to people who are deaf, they embrace it, they don't want to be "fixed". (Again, this is to say for most, not all deaf people). "Nevertheless, many deaf people are proud to be Deaf, not just deaf with a lowercase d, meaning unable to hear, but Deaf with a capital D like one's nationality, meaning they are proud to be Deaf, embrace Deaf culture and the Deaf community, and some would not even want to become hearing if they could." ((5)). They are proud to be deaf and part of the Deaf community. "Deafhood" refers to a sense of self identity and individuation. This can be referred to as modernism [[28]] because Deaf people or even hearing people part of the Deaf community are trying to break the norms of how hearing people feel about deafness. The Deaf community is trying to break the norms of deafness being a disability (diachronic [[11]]).

There are pros and cons to both views. The pros and cons are most likely controversial because the medical view will see their cons as pros and vis versa. A con of the medical view is being seen as handicap or disabled. A con of the cultural view is that children who don't fully understand a person being deaf talking about it medically may be simpler. A pro to the medical view is if someone who is deaf wants to be a part of the hearing community there are options. A pro to the cultural view is that when deaf people feel so lost in a hearing word, they have the Deaf community to be there and support them.

This chart below will show discursive symbols [[12]] of deafness based on what deaf people can and can't hear ((5)).

Decibels	Common sounds (in decibels)	Medical Perspective	Cultural Perspective
0		Normal Hearing	Hearing
10	breathing		
20	whisper		
30		Mild Hearing Loss	Hard of Hearing
40	conversation	Moderate Hearing Loss	
50			
60			
70		typewriter	
80		rush hour traffic	Severe Hearing Loss
90	food blender	Profound Hearing Loss	Deaf
100	train, lawnmower		
110	chain saw		
120	jet airplane		
130			
140	shotgun blast		

Hearing World vs. Deaf World

The hearing world they can be a little naive when it comes to the Deaf community. “Hearing people have the tendency to naturally look down upon and express pity” ((6)). Which in the Deaf community they won’t want anyone’s pity they want to be respected just like any hearing person would. “The body language and facial expressions used by people who are hearing are subconscious.” ((6)). For hearing people, we don’t even realize, sometimes, when we use facial expressions in a conversation. Being a part of the hearing world, in semiotics, can be seen as a parole [[36]] because deaf people can’t use oral language and be a part of the members in this particular speech community.

The deaf world is very different from the hearing world. They can be very direct and tell it how it is, they don’t have much of a filter ((6)). “In the Deaf community, body movements, hand gestures, and facial expressions are conscious and considered some of the most important and foundational elements of their communication.” ((6)). “To communicate with each other and the world using sign language or the lip-reading method, Deaf people have to look at each other while doing so. Meanwhile, hearing people using speech and depending on the sense of sound look away and break eye-contact at any time or point during a conversation.” ((6)). This oculesics [[32]] is very important in sign language, eye contact is everything, not just looking at their hands while they sign.

How hearing people, who do not know sign language, communicate with the Deaf community is some deaf people can read lips, but it is a very small amount of people. Some people will write things on a piece of paper and others know some finger spelling, so they try to communicate that way. If deaf people see that a hearing person is trying the appreciate the effort give. This conative function [[3]] and emotive function [[13]] of a person trying to get their message a crossed to the hearing or deaf person is them being appreciative of them trying to communicate to help them (if need be).

Some things that are good to know when having a conversation with a deaf person is that they are not handicap, they like eye contact and they do not want to be pitted in any way shape or form. They want to be treated as any other person in the world.

Communication

Communication is a tremendous aspect of sign language. Semiotic [[47]] repertoires are a set of tools while communicating. Through use of speech, image, text [[63]], sign, [[51]] gesture [[16]], gaze, facial expression, posture, and objects [[33]] semiotic repertoire is extremely important in sign language. Sign language is made up of signs, gestures, and facial expressions ((7)). “These reciprocal, dynamic interactions give rise to ‘structural couplings’ between individuals and their environment, which manifest as varied communication practices. These practices evolve as signers and speakers draw on all meaningful resources available to them into a complete, heteroglossic package, i.e., the “semiotic repertoire”. Within this cognitive/biosemiotics approach, a key principle is that the meanings which emerge within ecologies are largely

inferential – more so than symbolic [[58]]– so that tokens of expression stand in relation to each other with respect to their specific indexical properties” ((7)).

Composite utterance (hearing) is another important aspect when talking about semiotics and sign language. “As products of face-to-face interactions, composite utterances can be analyzed according to both their semiotic properties and the situated context of the interactions in which they emerge” ((7)). “The preciseness and vividness of an understanding, however, might be clarified by using more conventionalized semiotic resources such as lexicalized words or signs, to frame the less conventionalized properties of the utterance. For example, deaf signers’ strategic use of lexicalized signs to index [[23]] and frame subsequent token enactments work to clarify who or what is being vividly enacted.” ((7)).

Composite utterance (deaf) is a third important factor in communication pertaining to semiotics and sign language “A first example of a composite utterance evidenced in a deaf/deaf interaction is produced by a deaf Auslan signer re-telling Frog, Where Are You? During the story, a little boy searches for his missing pet frog. In retelling one moment of the story, the signer produces a composite utterance that both depicts and describes the boy as he picks up a boot and looks inside it. The signer begins with an enactment of the boy holding something over his head (i.e., a depiction), using eye gaze and facial orientation to index an as-yet un-named referent to a specific location in the signing space.” ((7)).

Gesture

Gesture [[16]] is seen as one of the top things when talking about sign language, without gesture you don’t have sign language in reality. One type of gesture is iconic [[20]] gesture which is referring too virtual ostension. “Iconic gestures provide a pictorial representation of what is being said, but they often also add information not included in speech, and herein lies the symbiosis.” ((8)). “In McNeill’s taxonomy, iconic gestures are distinguished from other types of gestures, all of which are distinguished from linguistically organized speech. Iconic gestures are distinguished from “beats,” which punctuate the rhythm of speech, from emblems — conventionalized gestures such as “OK” or “thumbs up” — and from other gestural types as well.” ((8)). Iconic gestures are a way of communicating in the Deaf community based on semiotics. Image schema [[21]] all happens in the mind and not knowing the gestures has an impact on a person’s ability to understand a conversation in sign language.

Another type of gesture is hand gesture. Gestures enable speakers to enrich the communicative message by conveying imagistic information simultaneously with speech. In all known human societies, gestures tend to co-occur with speech. With the use of gestures in sign language they are able to communicate with one another. “it is accurate to say that signers gesture just as speakers do—that is, that the manual movements speakers produce when they talk are also found when signers sign.” ((8)).

A third kind of gesture in sign language and semiotics is mouth gesture. When a person is communicating, even though they cannot use speech sounds there are still mouth gestures to make the conversation easier to understand or interpret. Hearing people may find it hard to believe that there are mouth gestures when it comes to sign language because they cannot speak but it is a big part of learning sign language and to hold a conversation.

Semiotics Analysis of Sign Language

There is natural language processing in sign language but there are issues with that “Natural Language Processing (NLP) has a long history of developing technological artifacts (e.g. translators, thesaurus, recognition, dictionary, discourse analysis etc.). But the related works in (NLP) have some misconceptions. They try (i.e. not often successfully) to build tools in a language other than SL.” ((9)). The way sign language is signed is not the same way that English is spoken, the order is different so translating is an issue from English to sign language.

Iconicity is another important aspect of sign language and semiotics [[47]]. “Iconicity is an interactional property, defined by humans, drawn upon the resemblance between a linguistic form and its meaning, based on our ability to create conceptual mappings. It is, therefore, more than mere gestures, being, thus, a formal part of the language’s resources, for grammar and lexicon. Iconic resemblance may take the form of a structure preserving mapping between our image of one thing and another (a mapping of the phonetic form and an image of the referent)” ((9)).

The collaborative system is important in semiotics and sign language. Each sign in sign language is first studied for its firstness [[14]]. Then looked at through secondness [[46]] it is brought into reality of putting the signs together. Last it is looked at through thirdness [[64]] all together it is something learned.

Brain vs. Sign Language

The way the brain processes sign language is fascinating. It is shown that although spoken language and sign language access similar structures in the brain, they are not found to be happening in the same side of the brain while processing. There is a code [[2]] in the brain that helps the brain to process information such as sign language.

The whole brain is involved in everything we do but, for processing sign language it is different than how people who speak verbally process sign language The left hemisphere is where the information is processed for sign language which has to do with phatic function [[37]]. “The researchers found that especially the so-called Broca's area in the frontal brain of the left hemisphere is one of the regions that was involved in the processing of sign language in almost every study evaluated. This brain region has long been known to play a central role in spoken language, where it is used for grammar and meaning.” ((10)). “The Leipzig-based researchers were indeed able to confirm that there is an overlap between spoken and signed language in Broca's area. They also succeeded in showing the role played by the right frontal brain - the counterpart to Broca's area on the left side of the brain. This also appeared repeatedly in many of the sign language studies evaluated, because it processes non-linguistic aspects such as spatial or social information of its counterpart. This means that movements of the hands, face and body - of which signs consist - are in principle perceived similarly by deaf and hearing people.” ((10)). So,

there is an overlap between spoken and sign language because sign language and spoken language have movements of hand gestures, body, and face. The gesticulant [[17]] here is that speech can be understood by deaf people because of the overlap in the processing of the brain. The interpretant [[22]] and kinesics [[25]] of processing signs here extremely important for sign language ((10)). The way the codes are processes and identified can be seen here through the metalingual function [[27]].

Conclusion

Sign language and semiotics [[47]] go hand and hand when trying to understand sign language as a whole. Sign language is full of codes [[2]], signs [[51]], and gestures [[16]]. Looking at sign language through the semiotic perspective gives new insight on the language as whole. The more educated on a topic in different viewpoints give more people better insight.