

ELEMENTS OF SIGN LANGUAGE LEARNT IN AN INFORMAL SETTING: THE EVOLUTION OF AN INDIAN SIGN LANGUAGE DIALECT

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Abstract

The primary objective of this project is to gain insight into an unknown language, the sign language. This requires rigorous linguistic methodology which has to be applied to the system. I tried to understand the linguistic nature of Signing by deaf people. This would further enhance our knowledge regarding fundamentals of human language and other modes of learning. Our observation could be extended to understand language genesis and evolution

Introduction

Origin of Sign Languages is almost as old as the very beginning of communication among human race. With the development of vocal languages signing changed to mere gestures supporting the main language. Used only by the under privileged, the deaf and the dumb, signing is now their main source of communication. Sign Language is not just an elaborate movement of arms, it also consist of a detailed facial expressions. Hundreds of Sign Languages are used across the globe in various local deaf communities. Many of these Sign Languages now have a legal recognition. Researchers got interested in various Sign Languages in the late 1950's. Of all its aspects, the researchers were very keen to know the evolution of various Sign Languages.

Motivation

While studying Sign Languages researchers explored my frontiers such as evolution, structure, development, effect of surroundings etc. One thing that they could not explore in full detail was the evolution as one doesn't see a new language coming up daily. Nicaraguan Sign Language gave them one such window of opportunity. Rigorous attempts were made in understanding the evolution.

Another such instance was the Al-Sayyid Bedouin sign language (ABSL) in Bedouin village in Israel's Negev desert. Here a family migrated from Egypt with predominant deafness that runs through it. Now the entire village is a descendant of that family and there sign language developed among themselves.

Study of evolution of such new language can have two important outcomes. First, it could give an insight into how actually the human race started communicating. At the same time it would help in understanding the evolution of vocal languages as well, its structuring etc. as well. Secondly, this would help us in knowing more about the learning mechanism which a child incorporates to learn a language.

Methodology

The experiments were performed in various sets on various age groups.

The elements which were signed were alphabets, words like nouns, verbs, adjectives and adverbs, phrases using nouns with adjectives and adverbs, sentences which showed various tenses and storytelling.

My subjects were several hostel students from Jyoti Badhira Vidyalaya, Bithoor. I tried to include all grade students with different amount of exposure to learning. But due to poor education and lack of communication skills not much inference could be drawn from junior students.

During previous experiments on NSL, the main emphasis was on phrases only. The reason might be that the very first signs of changes in a language are observed in phrases. I tried to incorporate sentences along with phrases.

Signing of stories was of special significance. The subjects were exposed to stories in various formats such as picture stories, written stories along with pictures and written stories alone. They were asked to explain each of the stories to their fellow mates. This was done so that they could adjust to their surroundings and act naturally. One of the mates was even made to write the story in order to understand the extent of their understanding.

In the experiments performed on the ABSL using people, the effect of surrounding and generation on development of the language was studied. In my experiment not many experiments could be performed that accounted for the age gap.

Discussion

I would be discussing each element of my experiment.

Alphabet: The signing of alphabet both Hindi and English and the numbers was found to be standard for all aged students. This could be attributed to their formal training.

Words: Most of the nouns like animals, clothes, colors etc. were represented mainly by their predominant characteristic feature like face, sounds, and shapes for animals, style and location of wear for clothes and method of holding and eating for fruits. Because of these new unknown animals were somehow communicated but not fruits etc.

For instance:

- 1) DEER



DEER(SEEN)



REINDEER(NOT SEEN BUT RELATED TO DEER)



ACTUAL REINDEER(ISL)

2) ZEBRA



ZEBRA IN ISL



While doing for zebra the subjects could only enact a horse with black and white stripes.

For expressing days, weeks, months, years, a small gesture was extended accordingly hence showing the structural part in sign language. Special occasions like birthdays, or Diwali, Holi were expressed by their dominant feature like cake cutting, puja etc.

The Adjectives were expressed either through specific body gestures or codes or through their mostly common associations. Colors like black, white were represented through objects whereas blue, yellow through finger symbols.

Abstract qualities were mostly expressed through multiple hand gestures and many of them were not expressed, showing that they were one of the major challenges in sign language. This also begs question whether they really feel the abstract qualities like democracy, republic when they express or communicate it.

The Adverbs were again expressed by multiple gestures and many of them, due to lack of standards, were expressed by the association of the mode of work (like “hardly” by an expression showing a tired work and making facial gestures).

Stories helped us to get more real life exposure to their communication patterns. Reconstruction of story was very difficult. While reading these stories more stress was on each line rather than the entire story even after repeating the same story multiple no of times.

Another keen observation was usage of same symbol for different situations adjusting according to the event. For using forest in one story and lake in the other (both represented surrounding) similar expressions were used, although the standard is quite different. This showed flexibility in their communication.



FOREST (ISL)



FOREST / LAKE (WHILE COMMUNICATING STORY)

Drawbacks

- All my subjects had speaking parents.
- Subjects were exposed to verbal training and were proficient in lip reading that was problematic while drawing inference from the story telling tests.
- Poor education and lack of communication skills.
- Informal environment could not be created.
- Age criterion could not be accounted.
- Deaf children born to hearing and not hearing parents.

Drawbacks of Research in sign language

- Emotional approach , materialistic approach, lack of emphasis on studying patterns of experience of deaf individuals striving to shape their social life
- Robustness of sign language not fully understood

- Failure to incorporate deaf interaction patterns => incorrect inference about age and capacity to fully evolve

Future Prospects

- The structure and history of sign language around the world
- Sign language acquisition and age of learning
- Psycho-linguistic processing of sign language
- Representation of sign language in the brain

Database

For comparison purposes the following databases for ISL were used:

- <http://www.deafsigns.org>
- <http://indiansignlanguage.org/>

References

- *Children Creating Core Properties of Language: Evidence from an Emerging Sign Language in Nicaragua*

Ann Senghas, Sotaro Kita, Aslı Özyürek

Science 17 September 2004:

Vol. 305 no. 5691 pp. 1779-1782

DOI: 10.1126/science.1100199

- *Sign Language Structure: An Outline of the Visual Communication Systems of the American Deaf*

William C. Stokoe, Jr.

Gallaudet University

Downloaded from <http://jdsde.oxfordjournals.org/>

at Indian Institute of Technology Kanpur

on November 9, 2011

- *Sign Language Archeology: Integrating Historical Linguistics with Fieldwork on Young Sign Languages*

Ted Supalla

9th. Theoretical Issues in Sign Language Research Conference,

Florianopolis, Brazil, December 2006. (2008)

- *Evolution of a Language: American Sign Language*

Ari Savitt

<http://www.lifeprint.com/asl101/pages-layout/evolutionofsignlanguage.htm>

June 20, 2007

- http://en.wikipedia.org/wiki/Sign_language
- <http://www.lifeprint.com/asl101/pages-layout/evolutionofsignlanguage.htm>

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