

Sign Language: Origins and Modality

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Introduction

Sign language is a sign system of communication expressed through gestures, motions and facial expressions to convey meaning in communication. As there are many variations of sign language, this essay will dig deeper into American Sign Language (ASL) to avoid over-generalising. ASL has a grammatical structure of its own, distinct from English grammar (Perlmutter, n.d.). It is employed largely by the deaf or hard-of-hearing community in the United States and Canada. Other users of ASL include the children of deaf parents and the friends and family of deaf individuals (Oros, 2015). In this essay, we will use 'ASL community' to refer to all deaf, hard-of-hearing and hearing users of ASL.

Estimates of ASL users are difficult to discern (Mitchell et al., 2006) with estimates of 250 000 to 500 000 users, according to Wikipedia ('American Sign Language', 2021). Reviewing the work on ASL estimates, '*How Many People Use ASL in the United States? Why Estimates Need Updating*' by Mitchell et. al. (2006), Oros (2015) considered several reasons attributing to such a challenge in accurate data collection. 1) some estimates assume all deaf people to be ASL users. People who are not deaf or hard-or-hearing might fall out of the category of speakers, significantly altering the accuracy of the current estimates. 2) Methodological limitations in surveys collecting demographic data on languages do not consider and register ASL as a spoken language (Oros, 2015), omitting them from language data altogether. In macro view, combining these oversights could also cause an overlap, leading to double counts. Observably, this lack of accurate estimates sheds light on society's premature understanding of the ASL user experience.

Against this backdrop, this essay will borrow Crystal's (2006) comparative model between speech and text to discuss ASL's modality and contribute to the discussion on its effects on language and society.

Summary of Relevant Literature

History

16th century North American indigenous people were first documented to have used sign language, although its origins are believed to date further back in history (Napier & Leeson, 2015; Nielsen, 2012). Formal signed languages developed in the 19th century and ASL made its first appearances in 1760 with the establishment of the first public school for the deaf in France, thus giving ASL its influence from French sign language. (Supulla & Clark, 2014). In the 1960s (Napier & Leeson, 2015), researchers began studying its linguistic structure in greater detail. The nature of signed languages has been studied upon the benchmark of spoken languages (Napier & Leeson, 2015) and more importantly, linguistic work on them largely centered around how modality effects can distinguish spoken languages from signed languages (Napier & Leeson, 2015). Further, a belief that ASL had roots in English had persisted (Supulla & Clark, 2014) until later, when research began to reveal ASL's evolution to be independent of other language influences (Perlmutter, n.d.; Supulla & Clark, 2014). Thus, analysing ASL using Crystal's (2006) model on speech and text can enable an additional perspective on sign language as a medium for communication.

Integration into Society

Sign language, in general, occupies a small space in legal constitutions of 10 countries (Napier & Leeson, 2015). Legitimising sign language increases the deaf individual's access into higher education. Deciding deaf children can be educated in sign language (Napier & Leeson, 2015) removes the necessity of having them adapt to the education routines of the hearing community, liberating them from being the 'other' to being themselves - a community with an identity and language. Gallaudet University was the first university for the deaf and hard of hearing which eventually led to the publication of the modern ASL dictionary, *American Sign Language: A Comprehensive Dictionary in 1981* (Supulla & Clark, 2014). This publication has presented opportunities for many others to adopt ASL as a lingua franca, cultivating a stronger sense of self and belonging for the deaf individuals, as well as allowing hearing individuals to connect better with them.

The next section features an analysis on ASL's modality.

Comparison to Speech and Text

Speech like		Text like	
Time bound	Yes	Space bound	No
Spontaneous	Yes	Contrived	No
Face-to-face	Yes	Visually decontextualized	No
Loosely structured	Yes	Elaborately structured	No
Socially interactive	Yes	Factually communicative	No
Immediately revisable	Yes	Repeatedly revisable	No
Prosodically rich	Minimal degree	Graphically rich	Varying degree

ASL is highly dependent upon gestures, movement and facial expressions to convey meaning. Although absent of verbal utterances, it has more speech-like qualities than text-like qualities.

Time-bound

An interaction using ASL requires both speaker and recipient to be present. Each sign represents meaning and a combination of signs make up an address to which a response is usually expected upon completion of a sign sequence. Signing is also non-static as a sign sequence disappears once the speaker stops gesturing.

Spontaneous

ASL is spontaneous as there is no time-lag between a gesture and its interpretation. There are however, subtle differences between speech and text in terms of spontaneity. If a speaker is processing thought, fillers like 'you know,' 'erm' and 'well' commonly used during speech

interactions are absent. Instead, ASL speakers pause gesturing to signal thought processing (Fitzmaurice & Purdy, 2015) and continue gesturing once they figure out what to sign next. Sentence boundaries of ASL are usually unclear and are possibly more difficult to tell than that of speech, since ASL speakers do not need to pause for an inhale like its verbal counterparts.

Face-to Face

ASL interactions require participants to be within the field of vision of one another as being a gestural language, recipients turning away or having their sight blocked will cause a disruption in communication and hence interpretation. A speaker asking a “question is [signalled by expressions] on the face: when a yes-no question is signed, the eyebrows are raised. In an ASL conversation, signers do not watch each other’s hands; they maintain eye contact, watching each other’s faces (Perlmutter, n.d.)” ASL speakers place heavy reliance on extralinguistic cues like facial expression, distance (gesturing nearer or further away from the body) and direction to convey different meanings. For example, “A single ASL sign can express many [things]. Adding a circular movement to existing signs produces signs (Perlmutter, n.d.)” of other meanings.

Loosely Structured

ASL signs have to be gestured one at a time and cannot be overlapped by a single speaker, hence, it is only able to convey one meaning at a time (unlike in text where we can input parentheses like these to include more information). It also includes informal or unofficial gestures like sign names (Evangelista et al., 2020) highly unique to the context of the speaker and situation he or she resides in. For example, when referring to a prominent figure like former US President Donald Trump, people would usually fingerspell (T, R, U, M,P) his last name, as all ASL users would when signing proper nouns. However, to express disdain for the personality, signers from Gallaudet University in the Netflix Docu-series, *Deaf U* (Evangelista et al., 2020) would sign a ‘toupee’ gesture (see figure 1 below), “as we all know that man has a toupee (Evangelista et al., 2020).”



Fig. 1 The ‘toupee’ sign gesture, sign name for former US President, Donald Trump
Screenshot from *Deaf U* (Evangelista et al., 2020)

Socially Interactive

ASL is socially interactive because it is employed largely to convey the current attitude, thought and desire of the speaker at the moment. It rarely presents as an opportunity to record intricate and detailed facts due to its spontaneous nature.

Immediately Revisable

Just like speech, once errors are spoken, it cannot be withdrawn (Crystal, 2006). However, it can be immediately revisable by signing once more.

Graphically Richer than it is Prosodically

Although numerous individuals in the ASL community utter verbal articulations as they sign, they are secondary and optional during the employment of ASL as its linguistic structure do not require verbal utterances to affect meaning. In this way, prosody becomes rare. However, to a minimal extent, ASL dabbles into rhythm through gestural speed and momentum. Additionally, while ASL lacks the ability to convey tone, facial expressions are adopted to communicate meanings similar to that which tone brings. In the earlier example, a rising intonation made during speech is replaced by a raised eyebrow in yes-no questions. Hence, with facial expressions and body language combined with signs, ASL can be categorized as graphically richer than it is prosodically.

ASL and Society

ASL and Language

It was common belief that ASL was a coded language adapted from English (Supulla & Clark, 2014). However, it was later studied that ASL developed independently from oral language influences. Some might consider *Manual English*, *Ameslish* and *Pidgin Sign English* exceptions of sign language that do use the English word order or syntactic patterns (Hall, 1983). On the other hand, as discussed above through Crystal's (2006) comparative model between speech and text, ASL is distinct from English speech and text. Perlmutter (n.d.) states, "A single ASL sign can express an entire sentence that requires three words or more in English (Perlmutter, n.d.)," revealing a versatile quality in each gesture. For example, "I ask her" and "She asks me" are represented by the same sign, except the direction of gesture changes.

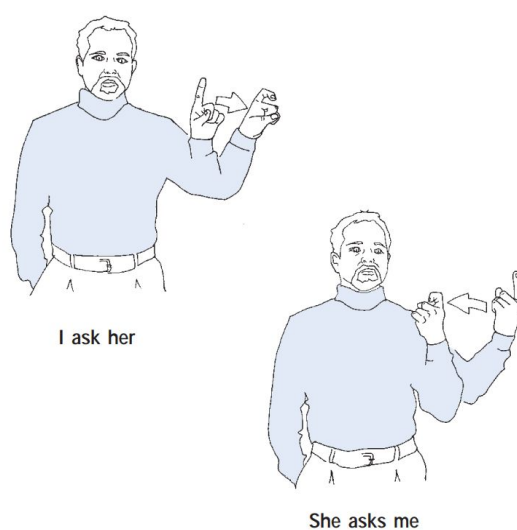


Fig 2. ASL signs for "I ask her" and "She asks me" (Perlmutter, n.d.)

“I ask her” requires the moving of the hand away from the speaker, while “She asks me” requires the moving backward of the hand towards the speaker (see figure 2 above). Consequently, such adaptive features of ASL signs granted by versatility have enabled language communication efficiency. While hearing individuals need to begin conversations relatively formally, conversations in ASL are straight to the point (Hall, 1983). Hence, lay bilingual ASL users are required to code switch both language and social etiquette when the need arises.

Technology

The advent of technology has also enabled the ASL community to grow and flourish. Especially, ASL interpreters on national television have allowed for more political participation from the deaf community. Moreover, “vlogs and online discussion panels — for millions, staples of pandemic life — have helped foster a more tight-knit [deaf] community (Waller, 2021)” and stronger network of ASL users. Tiktok user Nakia Smith’s Tiktok videos about Black ASL had helped grow its awareness (Waller, 2021) in both the hearing and deaf communities, benefiting and validating the experiences of blacks within the deaf community, growing the numbers of potential users of Black ASL.

Conclusion

Sign language and ASL albeit holding similar properties to speech, it is unique in the way they are used and experienced. With social consequences and effects to conversational efficiency, ASL has proven to be a distinct language of its own with a unique grammar structure and heavily based upon context. Often, an interpreter unaware of the context within which an ASL user signs, may possibly be unaware of the meaning nuances the speaker intends. In retrospect, this paper has revealed ASL’s potential to be a prominent aspect of not only the deaf community but also to occupy a bigger space within the linguistic community. Additionally, technology has enabled the burgeoning awareness of ASL and other sign languages. I am optimistic more educated and systematic approaches will be taken in order to ensure ASL representation not only in demographic data but also institutionally. Historically and in present times, ASL continues to have influences in society and language, bolstering the vibrant addition and inclusion of the deaf community to the mainstream.

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