Sign Language Survey

What spoken language surveyors should know about sign languages

J. Albert Bickford, Daniel Eberle, Sarah Eberle
SIL International
Revised 2016-06-04

This document describes a set of key concepts about sign languages that all language surveyors should understand. It is particularly aimed at those who want to do spoken language survey, so they know what to do should they encounter a previously-unknown sign language. Sign language surveyors, of course, will need much more training, typically through a specialized course and/or an internship.²

Sociolinguistic differences between spoken and sign language communities

Language acquisition and internal variation

- Language transmission of sign languages is typically not parent to child (less than 10% of deaf children have deaf parents). Rather, people learn sign languages from other sources that vary from one population to another (schools, churches, deaf associations, the street).
- Language ability across a Deaf community varies more than in spoken language communities, due to the higher incidence of late learners (people who don’t learn any language until later childhood or even adulthood). Thus, individual deaf people may not be representative of the community, and so in surveys careful subject selection (and sometimes larger samples) are necessary in order to get accurate information about the language.
- Sign languages seem to tolerate greater variability (less standardization) within the community (vocabulary, pronunciation, etc.) than occurs in spoken languages. For example, a majority of words may have significant variant pronunciations even within one signing community. Partly this is due to differences in signing ability, but also due to

---

¹ Thanks to Angela Kluge and especially Peter Unseth for helpful comments on this paper.
² As this is intended primarily as a reading in a language survey course, it does not cite references, although there is a short reading list at the end.

different schools, and the general possibility of communicating clearly in the visual modality in spite of minor linguistic differences.

Population

- Deafness has two main types of causes: heredity and illness/injury. Relative proportions of these two types vary from one population to another. When heredity is a primary cause, there may be Deaf families who pass on the language normally from parent to child; these often form the social core of the Deaf community generally, even if they are greatly outnumbered by Deaf who grow up in hearing families.
- Audiological deafness is usually not the only factor which determines membership in a signing community. Hence, a distinction is often made between audiologically “deaf” and culturally “Deaf”. Hearing children of Deaf adults (“CODAs”), for example, may function as part of the language community and even be referred to as Deaf. Late-deafened adults often do not learn to sign, and are audiologically deaf but not culturally Deaf. Hard of hearing people may find themselves only partially included in a Deaf community, depending on their communication choices, community involvement, family, etc. Some deaf children may be raised to speak and lipread (often not very successfully) and not sign at all.
- Isolated deaf people may not know a sign language and typically are not representative of the Deaf community in the country. They may have invented their own “homesign” system for basic communication, but it is not a full language and unrelated to the language that the Deaf community uses. These situations typically involve only one deaf person and his/her hearing family and friends.
- A rough rule-of-thumb that is often used is that 0.1% (1 in a 1000) people in a population are culturally Deaf, but this varies depending on the country (educational opportunities, health, population density, size of gene pool). In countries with poorer health-care systems there may be higher incidence of deafness due to disease and injury (e.g., around 0.5%). Smaller communities (villages) with closed gene pools may have higher percentages (typically 1-4%, but even 10% has been reported). Educational policies also have an impact on how many deaf people learn to sign and become Deaf.
- Generally, government and other NGO population figures for deafness and sign languages very rarely take all of these factors into account. To interpret them, you have to know what exactly they are counting. Deaf-led organizational estimates tend to be more realistic, but even then not always reliable (i.e. they may report membership in their association rather than # of signers).

Sociolinguistic types

- There are three broad sociolinguistic types of sign languages:
  - Deaf-community sign languages (a.k.a. national sign languages) typically develop around deaf schools, are concentrated in urban areas near such schools, and consist mostly of deaf people, with few hearing users. They tend to
be an oppressed language community and isolated from the larger society, facing discrimination in education, employment, and society. The majority of signing Deaf people use this type of language, and they are the type of community that SIL and other language development and Bible translation organizations tend to be involved with.

- Village sign languages typically develop in isolated rural populations with relatively high percentages of deafness, almost always due to hereditary factors. Usually many hearing people know the sign language as well as deaf people, indeed, hearing signers often greatly outnumber deaf signers. As a result, unlike national sign languages, transmission may actually be primarily from parent-to-child; when a child is recognized as deaf, their family begins signing with it. Unlike national sign languages, deaf people are often well-accepted in the community and fully-functioning members of it. These are of great interest to sign language linguists, since they are typically language isolates, and thus help round out our understanding of what is possible in a sign language. They also tend to have very small populations and be very fragile, easily replaced by national sign languages after contact.

- In a few places, a sign language has developed primarily for use among hearing people when normal spoken language is unavailable. These are rare, and have only been reported among indigenous groups in North America and Australia. There may be no deaf people in these places, but if there are, their lives are more like those in village sign languages.

- Sign languages normally only develop if there is a critical mass of deaf people, either an unusually high incidence of deafness in a small gene pool (>1%) or at a deaf school.

- Larger Deaf communities tend to be concentrated in urban areas, as Deaf people tend to settle in major cities or around Deaf schools to be closer to other Deaf.

**Bilingualism and language choice**

- Some educators and medical personnel (fortunately, less than in the period 1880-1980) recommend that deaf children be limited to using only a spoken LWC (lip-reading and speech). This educational philosophy is called “oralism”, and deaf people who depend only on speech and lip-reading are called “oral” deaf. Oralist education, when used as a substitute for sign language, is seldom effective. The percentage of deaf people who can communicate effectively through speech and lip-reading is very low (usually less than 10%). Worse, it may sacrifice all other aspects of education in pursuit of oral education, usually has negative effects on cognitive development (due to loss of early, normal language input), and is damaging to emotional and social development. It is a significant source of pain for many Deaf people. People educated in an oral system may go on to learn to sign and become active and well-integrated members of deaf communities. Others, however, do not; if they presume to speak for all deaf they are not reliable sources of information. (Helen Keller is a famous example of an oral deaf person who is often assumed to be representative of deaf people generally but actually is not.)
- Despite an oralist approach to education in a deaf school, a sign language may develop among the children anyway outside the classroom, especially in residential schools.
- Literacy in LWCs often varies widely within a deaf community, and is usually overall lower than the hearing population. There are many reasons for this, but the three most important are: a) poor educational practices in many countries, b) the inherent difficulty in learning to read a sound-based writing system when you don’t know what the words sound like (it’s a little like memorizing a phone number for each word), and c) age of first language acquisition. Those who learn a natural sign language at the normal age for first language acquisition generally become better readers and writers, and there is an overall positive correlation between signing ability and literacy levels in a LWC. Some Deaf people do become proficient readers and writers, and there is no reason why Deaf people can’t learn to read and write well if they get early natural language exposure and are taught in the right way. But, unfortunately, few have those benefits. Even for those who read well, their heart language is still a sign language, and that is their preferred mode of communication. Thus, deaf people and communities often prefer face-to-face communication even when their literacy skills are relatively high, and thus share many characteristics with so-called “oral societies” (but see below about not using that term).
- At the same time, many Deaf people have some knowledge of the surrounding spoken language. They may be able to read some words or signs, or they use mouthing borrowed from the spoken language as they sign.
- As with many language communities, communication choices can be very controversial and language policies can lead to sharp political debates. Policies put into place by powerful hearing people against the wishes of Deaf people often lead to lack of trust toward community outsiders.
- When Deaf people from different sign languages meet face-to-face, they may achieve a surprising degree of communication in a short amount of time, much faster than with spoken languages. Partly this is due to the inherent similarity among sign languages (the amount of variation worldwide is about the same as in a spoken language family, even when the sign languages are unrelated) and the inherent possibilities for communication in the visual realm. Thus, informal pidgins can develop very quickly. This should not be mistaken as mutual-intelligibility. Such communication is not possible in pre-recorded video materials that do not adjust to their audience.
- There is a communication system called International Sign, but it should not be mistaken for a language. It is a semi-standardized pidgin, typically used at conferences, sporting events, and other international gatherings. It tends to depend dynamically on the participants involved, e.g. when many European sign languages are involved, it tends to be heavily influenced by ASL, whereas in East Asia it takes on characteristics of languages from that region.

**Language attitudes**

- Treatment of Deaf people by Hearing people tends to follow patterns of colonialism and paternalism.
Sign languages are often under threat from sources that are different from spoken languages. Language replacement does happen (especially with village sign languages being replaced by national ones), but national sign languages also face threats from oralist education, medical policies that favor oralism, mainstream education, and eugenic practices.

“Disability” is an ambiguous and often controversial issue for Deaf people. Being treated as a “disability” often gains them benefits that they wouldn’t otherwise have. However, general policies towards people with disabilities may be inappropriate for deafness (e.g. mainstream education, which in its attempts to integrate deaf children in “normal” classrooms actually isolates them due to language barriers). Many people in Deaf communities prefer to think of themselves as linguistic and cultural entities and not disabled communities. Some Deaf people may resent being considered “disabled”, pointing out that they can do everything a hearing person can do except hear.\(^3\) In fact, “deafness” as a disability is primarily culturally-defined, a creation of the hearing culture that relies on speech rather than signing to communicate. If everyone knew a sign language, deafness would be a relatively minor nuisance, not a disability.

### How many sign languages are there?

A relatively small number of sign languages are recognized in ISO 639-3 and Ethnologue. Documentation of spoken languages had a long head start, and now with the separation of ISO 639-3 from Ethnologue, adding new languages to the inventory is a slow process. As of 2016, there are about 140 sign languages in ISO 639-3 and Ethnologue, but we know of approximately 100 more. Further, reasonable estimates would put the eventual total number at over 400.

Counting sign languages encounters the same issues as counting spoken languages. The basic problem: When is a dialect distinct enough to be considered a separate language?

- When a sign language is transplanted from one country by educators who set up schools for the deaf, it often creolizes with signing systems previously present in the country, and over the course of 20-30 years may evolve into something that is not mutually-intelligible, even if people still say that it is the “same” language.
- On the other hand, due to nationalistic concerns, two mutually-intelligible varieties may nevertheless be considered distinct because they are used in different countries.
- National educational policies that promote one particular type of signing throughout an entire country may mask linguistic diversity in what people actually use in their daily lives.

These situations are especially common with American Sign Language (ASL), which has been transplanted to many different countries, especially in west Africa, the Caribbean, and southeast Asia. Similarly, Russian Sign Language has spread throughout the former Soviet Union, but it is not obvious that it is still the same language in all places.

---

\(^3\) This remark attributed to I. King Jordan, the first Deaf president of Gallaudet University.
Sign language survey

Mistakes to avoid in surveying Deaf communities

- If you don’t have prior involvement in a Deaf community, you are likely to be unable to understand the situation accurately. Non-signers can gather initial information, and this can be very helpful to later sign-language survey teams. However, it can be hard to interpret accurately and should not be relied upon for any decisions about further involvement with the language or the community. Turn the job over to an experienced sign language surveyor to evaluate the information you have gathered, to make recommendations for further involvement, and to do any further survey.
- If you don’t know a sign language, you will have to depend on less-than-ideal sources of information. These sources can be helpful, but information from them needs to be interpreted carefully by someone who has a thorough understanding of sign language sociolinguistic dynamics. In general, report what people tell you, but don’t draw any conclusions from it.
  - Hearing educators, government officials, and medical personnel (or anyone else outside the deaf community, including interpreters) often do not understand the Deaf community and may not be reliable sources of information. They may promote a different variety of signing than is used in the general community, or discourage signing completely. Some disability or deafness focused organizations may be more reliable, but remain cautious, especially of population figures.
  - Although people who are bilingual in the sign language and the surrounding spoken language (“interpreters”, whether professionally-trained or informal) can be helpful sources of information about the language, or helpful in facilitating communication with Deaf people, don’t rely solely on information provided by or through interpreters if possible. Interpreters may claim to be part of a Deaf community but not actually be accepted by Deaf people or understand the community well. Interpreters can often have inflated views of their own signing ability, leading to misunderstandings when interpreting. Interpreters’ perspectives may even intrude when interpreting answers to a researcher’s questions, overriding the perspective of the Deaf person they are interpreting for.
  - Similarly, Deaf people who can communicate using spoken language can be helpful sources of information, but their perspective may easily be biased by their ability to interact effectively with the surrounding hearing community. This is especially true for those with an oralist perspective.
  - If possible, don’t rely on a single source of information: triangulate. If you only have a single source, make that clear when you report it--that the information has not been corroborated.
- As noted above, you can’t rely on reports of people being able to communicate with each other face-to-face to draw conclusions about mutual-intelligibility. Testing must be done by experienced sign language surveyors who know how to control key variables.
● Be careful not to raise any expectations or make promises about future involvement of SIL or any other organization. People may be eager for help from sympathetic outsiders. In fact, it is better to refrain from collecting information than to raise hopes that can’t be fulfilled.
● The word “oral” should not be used in the sense of “oral (non-literate) societies”, as it is likely to be misunderstood as referring to oralist education and thus may even be offensive. An acceptable term to use for a signing community that does not depend heavily on literacy is “face-to-face”.
● Don’t overrate iconicity. Signs still need to be learned, even if they’re iconic. Many are arbitrary, or their iconicity is not sufficient to be able to guess their meaning. Plus, people also need to learn the grammar, which can be quite different from the surrounding spoken language. Give sign languages the same respect you would a spoken language.
● Don’t lump Deaf people together with blind people or people with other disabilities. Their linguistic needs are very different. Think in terms of a language community, not disability.

**Survey techniques**

When doing language survey among sign language communities, many of the survey techniques are based on techniques also used for spoken languages. Spoken language surveyors have sometimes been asked to help with sign language surveys. Sign language survey specialists will take the lead, but spoken language surveyors can be of assistance in some ways, so it is helpful to be aware of the types of adjustments necessary. In all methods, of course, video is used instead of audio.

● Questionnaires and informal interviews address many of the same issues as in spoken language survey, but also need to include questions specific to sign languages, such as how and when children learn the language.
● In Recorded Text Testing the retelling method has worked out better than the original question-and-answer format.
● Word lists require several adjustments:
  ○ The word list used needs to be different, to avoid vocabulary that is highly-iconic (such as body part names), and may need to be elicited with pictures rather than through translation (since bilingualism in the LWC may be low).
  ○ Scoring of lexical similarity is usually done directly from videos, rather than first transcribing them. (Transcription of sign languages is problematic and more time-consuming than scoring directly off of videos. There are ways to trick WordSurv into tabulating the results.) A variety of different scoring methods have been used, which can give widely varying results. As a result, reported percentages of similarity are meaningless until the methodology is calibrated against known languages.
  ○ Because of greater iconicity, it is not uncommon to see percentages in the 20-40% range between unrelated sign languages.
Participatory methods have been used successfully with sign language communities, although rural metaphors often used for spoken languages may need to be adapted to the urban situation of most sign languages.

Sampling of people to be tested, by whatever methods, is even more important among sign language users, because of greater variation within the community. Especially, it is important to take into account how and at what age each person learned the language. Just as when doing language survey of spoken languages, all methods and equipment should be tested beforehand. The advantages of triangulation apply to sign language surveys as much as to spoken language surveys. Sign language surveys need to comply with all requirements for permissions from relevant groups, and surveyors must contact and involve relevant stakeholders. In other words, most aspects of sign language survey are built on the same principles and techniques as with spoken language surveys.

Basic facts to gather in a rapid appraisal

Most sign language survey should be left to experienced sign-language surveyors, particularly when using formal techniques such as wordlists, RTTs, SRTs, questionnaires or participatory methods. At the same time, there are things that even people unfamiliar with sign languages can do in a “rapid appraisal” situation: information they can easily gather and pass on to specialized survey teams. This is especially important should a surveyor stumble on a previously-undocumented sign language in an isolated location. If the language isn’t in Ethnologue, and you have the opportunity to get some information about it, please do so!

When gathering information about a Deaf community, it’s critical to keep track of what information you get from each source, and especially whether they are Deaf or Hearing and what involvement they have in the community. (If possible, also ask Deaf people what they think about any Hearing people you interview.) Also, please maintain a list of sources and contact information: address, phone or VP, email, Skype, their role in the community, the language(s) they use, etc.

If you’ve encountered a Deaf-community (“national”) sign language with established schools, there is not much that you need to do other than pass on any of the following information that comes to you easily. On the other hand, if you find a previously-undocumented village sign language in a remote region, it is more important to capture information while you are there. Any information you can gather of the following sort is helpful, so please take the opportunity to ask as many of these questions as you can.

Talking with Deaf people may require working through interpreters. In this case, keep track of how skilled the interpreter seems to be (i.e. evaluate the possibility that the information may be getting garbled in translation).

- Where is the sign language used? Over how large a region?
- What do Deaf and Hearing people call it? (They may have different names, which may be controversial, or it may not have a name other than something generic like “signing” or “hand-talk”.)
• How many deaf people are there? Do they interact with each other, or only with their hearing relatives/neighbors? (This is important to help determine if this is a fully-developed sign language or just a home sign system.)
• How many (or what percentage of) hearing people know and use it?
• Generally, is the sign language/s present in the region considered distinct from other sign languages in neighboring countries or regions? Sign languages may or may not align with national borders, or with boundaries of spoken languages.
• Is there some other sign language/s that community members identify as being a parent language? For example, American Sign Language has influenced many sign languages around the world.
• Are there deaf schools? Do they encourage use of signing in school? If so, what sign language do people say is taught there? (Don’t assume, however, that it really is the same as what may be found in another country by the same name.) Is it the same as is used for general communication in the community?
• Get names and contact information for Deaf associations, churches, schools, and government agencies.
• Is the sign language used on television? Which shows? When?
• What publications (DVDs, dictionary, grammars, textbooks, academic articles, Youtube channels, websites, etc.) are available in or about the sign language?

Sign languages in SIL International

Language surveyors, especially those within SIL, should know how sign languages are handled within SIL.

• Sign languages have been considered fully within the scope of SIL activity since Board action in the early 1990s: translation, linguistic description, literacy and education, anthropology, advocacy, etc.
• Sign languages in SIL are handled under the Global Sign Languages Team, rather than SIL’s geographically-defined areas and entities. This generally means that a geographic region has two SIL “operational units”: one being the normal entity that covers spoken languages in the country or region, and the other being the GSLT for sign languages.
• Please contact linguistic_services_gslt@sil.org with anything you have learned about a sign language, in addition to notifying the appropriate geographic entity within SIL.
• Invite the local Deaf community to be in contact with the GSLT also (we can handle English, ASL, Spanish, French). Again, please avoid making any promises or raising expectations, but we are interested in interacting with them and exploring possibilities of collaboration.
• As a matter of general policy, the GSLT has decided not to make new proposals for ISO 639-3 language codes (“Ethnologue codes”) without active involvement by the Deaf community involved. This policy was chosen because of the long history of paternalistic decisions about Deaf people and communities by outsiders; we’re leaning over backward to avoid developing a bad reputation. Further, it is better to encourage local
involvement and initiative; a document describing ISO 639-3 for Deaf communities is available in English, French, Spanish and ASL here:

https://drive.google.com/folderview?id=0B8JMRC0yhNk5YUV0dU1kZDc5YTQ&usp=sharing

SIL members should not submit an ISO 639-3 change request about a sign language without consulting the GSLT, and those not in SIL are invited to consult with the GSLT before doing so. If some sort of language code is needed (e.g. for publication or archiving) before an ISO 639-3 code is established, there are alternative mechanisms available.

- There is a special Ethnologue editor for sign languages, currently Albert Bickford (using the above linguistic services email). It is best to submit all proposed changes to Ethnologue through him, rather than directly (although any direct submissions are usually passed on to him for review).

For further reading

Here are articles/books that people could read that go into more detail on these matters.

Sociolinguistic characteristics of sign languages


Sign language survey methodology and results
