Sociolinguistic factors in Sign Language research

Peter L. Patrick
Georgetown University

Melanie Metzger
Georgetown University

1. Introduction

This study surveys sociolinguistic research on signed languages (primarily American Sign Language, ASL) conducted since 1972 in order to compare sociolinguistic factors and social categories investigated with those frequently studied in sociolinguistic surveys of spoken languages. Language modality differences have influenced the development of distinct methods of data-collection, despite assumed similarities in the descriptive and theoretical enterprise. Similarly, though Deaf communities are hardly monolithic, they comprise a unique array of social factors, sometimes analogous but never identical to those encountered in SPEECH COMMUNITY studies of the hearing.¹

Comparison of research on the sociolinguistics of spoken and signed languages may mutually inform scholars in both areas. We examined 50 studies published from 1973-93 to catalogue the social categories and sociolinguistic methods considered important by signed language sociolinguistics researchers. We anticipated that the highly focused nature of signed language studies might allow fruitful contributions to spoken language research, while the greater scope and comparative/general nature of spoken language studies might suggest ways to expand the horizons of signed language research.

2. The works surveyed

In order to sample the types of sociolinguistic information included in research on signed languages since 1973, we compiled a preliminary list

* The authors contributed equally to this paper. We wish to thank our co-presenters in the NWAV-23 session "Issues in Collecting Visual Data: Links between Signed & Spoken Languages", for brainstorming and feedback.

¹ The term SPEECH COMMUNITY favors spoken language users, or even excludes signed language users; we employ it in this literal sense. Where an inclusive term is required, we use LINGUISTIC COMMUNITY, defining it to include signers on an equal footing with speakers. We follow the usual practice of using 'Deaf' for people but 'deaf' for a physical condition.
of social categories and factors potentially relevant to data collection and analysis, and gathered approximately 200 scholarly works. Our criteria for inclusion were that the works (a) be focused on examining signed language, and (b) include social information on signers, and attempt to incorporate it into the description or explanation of language structure or use.

We selected 50 studies from this initial list for closer examination, aiming at a judgment sample that represents a variety of disciplines, sources, publication dates, and locations of researchers and communities/varieties studied. Works selected came from a wide base of research in linguistics, psychology, education, communications and interpreting. Sources included signed language research journals (e.g. Sign Language Studies, Signpost) and working papers (e.g. Communication Forum), journals of linguistics, socio-linguistics, and discourse studies (e.g. Language, Language Variation and Change, Language in Society, Discourse Processes), published books and monographs, dissertations, theses and other work by graduate students. Works included some researchers and research on languages and Deaf communities from outside the USA (e.g. Britain, Chile, Japan, the Philippines, Sweden; though all studies examined were published in English). Finally, we included work from over 20 years of research in order to trace developments over time.

3. Factors compared across studies

We initially explored six aspects that serve to distinguish these studies: whether they were quantitative or qualitative in approach, the medium of data collected (e.g. videotape versus TTY printout), sample size, type of linguistic interaction, and certain characteristics (e.g. age, sex, race) of both interviewers and informants. In variation studies, only the last two or three are usually considered as categories of variables that may correlate with and influence linguistic choices in speech. Given the importance of methodology to sociolinguistics, however, and the influence of speech community research (such as the studies of Labov in New York City and Milroy in Belfast) on data collection and analysis techniques, we decided to include these other aspects of research design in our survey.

Each factor within a category appeared in at least one study, and most potentially relevant factors cited in more than one study appear in our list. Any aspect described as either an Informant or Interviewer Characteristic was included in both categories, making them identical, in response to recent evidence (Lucas & Valli, 1992; Lucas 1994) that interviewers

2We use ‘factor’ and ‘variable’ as general social-science terms, not in the specialized senses associated with variationist (e.g. Varbrul) analyses.

3 Lucas 1994 ("The importance of interviewer characteristics"), Martinez 1994 ("Eye-gaze in data collection of ASL"), and Ball & Winston 1994
influence signing patterns. Thus while no studies mention the interviewers' sexual orientation, we included this factor among Interviewer Characteristics since one (Rudner & Butkowsky 1981) reports it for informants.

A close reading of the 50 studies required expansion of the initial list into the more comprehensive set of categories presented here. Situational Characteristics was introduced to capture the variety of environmental factors reported, which some researchers have found affect signing; several of its subcategories may apply uniquely to videotaped or signed data. Type of Interaction broke down almost entirely into the familiar types of participant observation, sociolinguistic interview, formal interview, and questionnaire. This category and Medium of Data served primarily to identify when other categories were applicable (thus we will not report them in detail below). If, for example, the interaction was a written questionnaire, or the medium of data was a previously-composed videotape, then no interview took place; the interviewers' social characteristics are consequently not relevant in either case, while situational aspects such as presence of videotape technician and interlocutors' physical orientation are relevant to the latter, but not the former. The categories of Informant and Interviewer Characteristics were divided into general sociolinguistic factors, many of them commonly noted in sociolinguistic surveys of speech communities, and those pertaining specifically to Deaf linguistic communities (e.g. Deaf/hearing status).

4. Findings of the survey: Major factors

Findings of the survey are presented in the accompanying tables and figures, which are of two sorts. Table 1 summarizes the major categories, and their factors, which the original study authors deemed significant enough to report. It is presented in worksheet form, without numerical results, with the idea that it may be useful to future researchers as a preliminary checklist for the collection of data on the sociolinguistics of signed-- or even, for that matter, of spoken-- languages. (For the column "Sample Size", rather than supply a predetermined scheme of pigeonholes for relevant sample sizes, we have employed those suggested by the clustering of data in the studies surveyed.) The other tables and figures draw a quantitative portrait of the works surveyed, measuring them against the categories listed in Table 1.

Table 2 summarizes our findings, based on examination of the 50 studies, for the four main categories. 32 studies could be clearly labelled qualitative, and 17 quantitative, in method, for a nearly 2-to-1 ratio; three

("Towards a corpus of ASL") are talks from the same NWAV-23 session as this paper. All other works cited (cf. References) are from our sample of 50 studies.
were not data-based and thus neither qualitative nor quantitative, while two were both. Situational Characteristics vary from micro-level considerations, e.g. attire and physical orientation of signers to interlocutors and/or camera, to features of setting such as the presence of interpreters or non-interacting technicians and the nature of the study site (informant's home, classroom, research lab, etc.), to such macro-level considerations as location (region, state or city) of the study itself. In only half of the studies were any such factors reported. We note below that 36 of the 50 report using videotaped data, which necessarily introduces lighting equipment, camera technicians, and other physical orientation factors generally absent or ignored in speech research. Table 2 also indicates that social and sociolinguistic characteristics of informants were frequently considered, while those of researchers received little notice (e.g., only 14% of the studies reported any general social information on interviewers at all). A pattern of attending more often to those factors unique to or considered especially important by Deaf community members than to those reported in most speech community studies is clearly seen. We examine these categories in more detail below.

Examination of sample size in Table 3 shows that the majority of researchers studied small to medium-sized populations. Fully half of them sampled 10 or fewer informants, and nearly one-third had only one or two subjects (the non-data-based studies had no sample size). Only 9 studies had large samples of 50 or more; several of these drew on the same data-base (Woodward 1973, Woodward 1975, Woodward & DeSantis 1977). The other large-sample studies differed from speech-community surveys in several respects: two were ethno-graphic studies of entire small communities (i.e., no sampling was required for Gerner de Garcia 1990 or Wilcox 1984); two involved large groups of non-native-signing informants--parents, teachers, or students in a signing class (Crittenden 1974, Maxwell 1985); and one examined pre-existing data recorded from television programs (Sutton-Spence et al 1990). These results confirm recent discussions among ASL researchers on the difficulty of data collection (cf. Ball & Winston 1994, calling for development of a corpus of ASL data to facilitate use of larger samples in future research; see note 3).
### Table 1: List of social categories and factors

<table>
<thead>
<tr>
<th>Approach to data</th>
<th>Medium of data</th>
<th>Sample size</th>
<th>Type of linguistic interaction</th>
<th>Situational characteristics</th>
<th>Informant characteristics</th>
<th>Interviewer characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>❑ qualitative</td>
<td>❑ video</td>
<td>❑ 1-2</td>
<td>❑ participant observation</td>
<td>❑ location of study</td>
<td>❑ Deaf community factors</td>
<td>❑ Deaf community factors</td>
</tr>
<tr>
<td></td>
<td>❑ TTY</td>
<td>❑ 3-10</td>
<td>❑ sociolinguistic interview</td>
<td>❑ study site</td>
<td>❑ Deaf/hearing status</td>
<td>❑ Deaf/hearing status</td>
</tr>
<tr>
<td></td>
<td>❑ other</td>
<td>❑ 10-50</td>
<td>❑ formal interview</td>
<td>❑ presence of interpreter</td>
<td>❑ age of onset of deafness</td>
<td>❑ family Deaf/hearing status</td>
</tr>
<tr>
<td></td>
<td></td>
<td>❑ &gt; 50</td>
<td>❑ questionnaire</td>
<td>❑ presence of technician</td>
<td>❑ Deaf education</td>
<td>❑ Deaf education</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>❑ seating arrangement</td>
<td>❑ signing skill</td>
<td>❑ signing skill</td>
<td>❑ signing skill</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>❑ signers' physical orientation</td>
<td>❑ General social factors</td>
<td>❑ age</td>
<td>❑ sex</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>❑ attire</td>
<td>❑ sex</td>
<td>❑ education</td>
<td>❑ education</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>❑ socioeconomic status</td>
<td>❑ socioeconomic status</td>
<td>❑ socioeconomic status</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>❑ sexual orientation</td>
<td>❑ sexual orientation</td>
<td>❑ sexual orientation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>❑ marital status</td>
<td>❑ marital status</td>
<td>❑ marital status</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>❑ regional origin</td>
<td>❑ regional origin</td>
<td>❑ regional origin</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>❑ ethnicity</td>
<td>❑ ethnicity</td>
<td>❑ ethnicity</td>
</tr>
</tbody>
</table>
Table 2: The four main categories

<table>
<thead>
<tr>
<th>Approach to Data</th>
<th>Informant Characteristics</th>
<th>Interviewer Characteristics</th>
<th>Situational Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Qualit</td>
<td>Quant</td>
<td>Deaf Comm</td>
</tr>
<tr>
<td>Qualit</td>
<td>32</td>
<td>17</td>
<td>40</td>
</tr>
<tr>
<td>Quant</td>
<td>64%</td>
<td>34%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Table 3: Sample Size

<table>
<thead>
<tr>
<th>1-2 informants</th>
<th>3 or more</th>
<th>10 or less</th>
<th>50 or more</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>32</td>
<td>25</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>30%</td>
<td>64%</td>
<td>50%</td>
<td>18%</td>
<td>6%</td>
</tr>
</tbody>
</table>
Figure 1: Deaf community factors reported for informants and interviewers
5. A closer look at Informant and Interviewer Characteristics

Figures 1-2 graphically display the relative proportion of studies in which Deaf community and general social factors were mentioned, for informants and for interviewers (however briefly), out of all cases where this information might have been given. Social factors closely associated with the Deaf community were, not surprisingly, considered more relevant to variation in signing. Those most often addressed in the 50 studies include the informant's Deaf/hearing status, signing skill, and the Deaf/hearing status of family members: 40 studies mentioned at least one of these (see Table 2). Researchers noted informants’ self-identification as Deaf or hearing 83% of the time (39/47), gave some measure of signing skills and indicated whether their family environment includes Deaf or hearing parents or siblings just over half the time (26 and 25 studies), and gave rather less attention to education, reporting informants' attendance at residential or day schools for the Deaf or mainstream programs 34% of the time (16). Factors like age of onset of deafness, sibling age-rank, and handedness were rarely mentioned. (The latter 2 factors, like others mentioned only in passing in a single study, are left out of our tables, though they seem worthy of further study.)

Figure 1 shows a striking contrast in the frequency with which researchers explicitly considered the effects of Deaf community factors as applied to their informants, and to themselves, though the Observer's Paradox (the effect of interviewer presence on linguistic behavior) is well-known. Deaf/hearing status is again the most often noted factor for interviewers, but at a much lower rate of 21% (8/39), followed by the interviewer's signing skill at 15% (6). Recent work by Lucas and Valli (1992) has served to dispel the widely-held notion that Deaf/hearing status, per se, of an interviewer is a controlling variable in language choice among Deaf informants; instead it appears that signing ability is more salient (though the options of social group membership signalled by one's Deaf/hearing status may not be negligible). Family Deaf/hearing status and Deaf educational background are important measures of socialization into the Deaf community and potential grounds for solidarity between interviewer and informant; they are rarely reported for researchers (only 4 and 2 studies, for 10% and 5%). Overall, researchers were from 4 to 7 times as likely to report on informant as on interviewer characteristics.

---

4 INTERVIEWER refers to researchers who were active interlocutors in the process of data collection. Only 39 studies involved such interlocutors; some others used TV programs or videos of 'model interpreters', e.g. Davis (1989). The denominator for the Interviewer proportions is thus 39. The denominator for Informants is 47, the number of data-based studies using informants.
Figure 2: General social factors reported for informants and interviewers
Comparison with Figure 2 shows that research into those sociolinguistic categories deemed to be uniquely relevant to the Deaf community is privileged over that into social categories which apply more widely. General sociolinguistic factors most often reported for informants—though none was mentioned quite half the time— included age (45%, 21/47), sex, and educational achievement (both 40%, at 19), and race (28%, 13). Some factors were mentioned in less than a quarter of the studies, e.g. socioeconomic status (23%, 11), ethnicity (18%, 7) and regional origin (10%, 4) - all usually considered to be of potentially major significance in studying speech variation. Several less-commonly noted factors were examined by only a few researchers who made them a specific focus, such as sexual orientation (1) or marital status (3). These results reflect the comments reported for some informants that their Deaf identity may be more salient than, e.g., their race (Aramburo 1989).

Turning to the general social characteristics of interviewers, we see the same general pattern reproduced, but at a much lower level of reporting. Practically no data are given for interviewers: a handful of studies mention age (4), sex or race (3), educational background or socioeconomic status (2). None describes the regional origin or sexual orientation of interviewers.

Several trends are visible over the quarter-century of publications surveyed here. If our sample is representative, sociolinguistic studies of signed languages have increased greatly in number in recent years; surveys and studies using quantitative methods appear to have declined, along with sample sizes generally; and there has been little growth in the list of social categories investigated. The first decade of research (1972-1982), for which we have 14 studies, was evenly divided between quantitative and qualitative work; in the second (1983-1990) and third (1991-1993) periods, for which we sampled 18 works each, studies utilizing quantitative methods make up between a quarter and a third of the total. Over the same time period, small samples (10 or fewer informants) increased steadily from 17% to 33% of the total, while very large ones (50+ informants) declined from 33% to only 6%. These changes may be due in part to more intensive study of videotaped data as the medium has become more accessible, higher in quality, and finally almost essential to investigating signed languages: studies not mentioning use of video declined from 50% in the first period to only 6% in the latest one.

6. Conclusions and recommendations

Clearly, many studies of sign language which may broadly be described as sociolinguistic have been carried out in a different research paradigm, attending to different sorts of correlational and explanatory social factors, from sociolinguistic surveys of speech communities. This paradigm has investigated a set of variables which, while partially parallel to certain general sociolinguistic factors, are also peculiar to Deaf linguistic communi-
ties. E.g., age of onset of deafness and exposure to sign language can be early or late (often later than is usual for most speakers); the processes of language acquisition and socialization are influenced by family and school experiences in similar ways, but family hearing/signing status and the culturally focused nature of Deaf schools may produce outcomes unlike those often found in minority spoken-language groups.

It is also clear that many of the findings of speech community surveys, which sociolinguists would expect to be generally relevant to any linguistic community, have not been considered, tested, or applied in any systematic way in the majority of signed language sociolinguistic studies we examined here. While not all of the general social factors tabulated above are likely to be relevant at any one time, they have long been observed to influence speech interaction, and most are systematically attended to in speech community surveys. Careful study of their effects in Deaf linguistic communities, and systematic recording of such information in signed language studies with other primary goals, may prove rewarding.

Differences in explanatory variables arising from diverging methods of data collection can lead to disparate conclusions, including exaggeration or underestimation of how closely Deaf language use patterns resemble those discovered in speech communities in recent decades. The potential exists for the two research areas to inform each other, given shared goals of description and explanation of language structure and use on the level of linguistic communities. It seems evident that signed language research methodology ought to pay greater attention to general social and sociolinguistic factors, while continuing to study the effects of factors unique to Deaf communities and to understand them in terms of general sociolinguistic principles.

Conversely, spoken-language sociolinguists might profit from broadening their palette of sociolinguistic factors and research methods in several ways. The key role of videotaped data in signed language studies has made researchers aware of the total physical environment and context of linguistic interaction, leading to study of such factors as physical orientation and eye-gaze (Martinez 1993, 1994; see note 3); among sociolinguists, only discourse analysts have considered these. Social factors such as community membership, home language environment, age of exposure to a language, and educational experience may be problematized and seen in a more complex light by comparison with their Deaf community semi-equivalents. Finally, a companion survey identifying to what extent particular sociolinguistic factors have been considered relevant, and how systematically they have been incorporated, in a large sample of speech community studies might be a useful comparative and self-critical measure for speech researchers. After all, there may be flaws in the lens (or should it be, static in the microphone?) through which speech-oriented sociolinguists examine signed language research.
References


Davis, J. 1989. Distinguishing language contact phenomena in ASL.


Communication.


This paper was published in: