SIGNS OF THEIR TIMES: Deaf Communities and the Culture of Language

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■ **Abstract**   Because of their deafness, deaf people have been marked as different and treated problematically by their hearing societies. Until 25 years ago, academic literature addressing deafness typically described deafness as pathology, focusing on cures or mitigation of the perceived handicap. In ethnographic accounts, interactions involving deaf people are sometimes presented as examples of how communities treat atypical members. Recently, studies of deafness have adopted more complex sociocultural perspectives, raising issues of community identity, formation and maintenance, and language ideology.

Anthropological researchers have approached the study of d/Deaf communities from at least three useful angles. The first, focusing on the history of these communities, demonstrates that the current issues have roots in the past, including the central role of education in the creation and maintenance of communities. A second approach centers on emic perspectives, drawing on the voices of community members themselves and accounts of ethnographers. A third perspective studies linguistic issues and how particular linguistic issues involving deaf people articulate with those of their hearing societies.

> *To use a cultural definition is not only to assert a new frame of reference, but to consciously reject an older one.... But the cultural definition continues to perplex many. If Deaf people are indeed a cultural group, why then don't they seem more like the Pennan of the island of Borneo, or the Huichol of Mexico?*
>
> Carol Padden (1996a)

INTRODUCTION

Deafness is not merely the absence of hearing. An estimated 6.2 million people currently living are prelingually deaf, and many of these have formed Deaf

communities, often with distinct languages and cultural practices.[1] Anthropological studies show us that deafness impinges on many aspects of human activity. Furthermore, studies involving deaf people reveal issues of general anthropological significance, even to those who may not (yet) have particular interest in issues of deafness. For example, social organization, identity, culture, ideology, and sociolinguistic variation are all issues that permeate the studies mentioned in this review. The social implications of deafness are often counterintuitive and merit more than commonsense assessments. Deafness is, at least in part, a social construction. Understanding the complex nature of communities with deaf members requires attending to how people use and think about language. In other words, we need to understand more about the culture of language.

Therefore, this article has two primary goals: first, to review studies about communities of people who are deaf, with an emphasis on sign languages and anthropological contributions; and second, to suggest theoretical and methodological avenues worth further pursuit. Especially over the last 25 years, linguistic and psycholinguistic research has often addressed sign languages and signing systems (cf., Klima & Bellugi 1979, Siple & Fischer 1991; cf., also Morford 1996). Stokoe (1980) and Washabaugh (1981) are among the few anthropological reviews considering deafness and sign language research. Our article here focuses on issues of community identity and related cultural phenomena, especially language, and appropriate theory and methods for analysis of such issues.

Since the time of Stokoe's (1980) and Washabaugh's (1981) review articles, sign languages have become accepted as genuine languages, and the notion of linguistic communities of (deaf) signers is no longer novel. Yet anthropological studies of Deaf communities are still in a relatively early stage, akin to the early phases of Boasian descriptive ethnography of the early twentieth century (cf., Barnard 2000). Anthropologists, sociologists, and scholars from other disciplines such as education have used ethnographic methods to study deaf populations, especially to address pedagogical theory and practice. But studies of Deaf communities as such, especially those outside the United States and Europe, are rare, with few book-length ethnographic monographs available (cf., Higgins 1980, Evans & Falk 1986; cf., also Lane 1984, Baynton 1996, and Plann 1997 for sociohistorical accounts of deafness in France, the United States, and Spain). Nevertheless, a growing body of literature is emerging, much of it addressing sociolinguistic variation, providing fodder for comparison and theorization.

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[1]Prelingual deafness refers to deafness that occurs prior to the individual's acquisition of a first language and includes deafness at birth through 3 years. The estimate is based on the 1:1000 ratio used by Schein (1992), applied to the current estimate of the world population (6.2 billion) in 2002, as indicated by the U.S. Census Bureau. (See http://www.census.gov/cgi-bin/ipc/popclockw for details.) Prevocational deafness, as used by Schein (1992), refers to deafness prior to the age of 19 years and occurs at roughly twice the rate of prelingual deafness.

A core of sources has become an introductory canon, providing historical background and introductions to various perspectives. Most famous are Lane's (1984) *When the Mind Hears*, Padden & Humphries' *Deaf in America*, *Voices from a Culture* (1988), and more recently, *A Journey into the DEAF-WORLD* (Lane et al. 1996). Other accounts and anthologies such as Gannon (1981), Sacks (1989), Wilcox (1989), TRAIN GO SORRY (Cohen 1994), Lane (1992), and Fischer & Lane (1993) are also accessible sources aimed at general audiences. ["Children of a Lesser God" (Paramount Pictures 1992) and "Sound and Fury" (Filmakers Library 2000), the latter a documentary about cochlear implants, are among the few deaf-related movies that introduce sociocultural issues of deafness to popular audiences.] *The Deaf Way* (Erting et al. 1994) provides accounts from around the world with an unparalleled range of topics and contributors (see below), though several of the essays are not academic in orientation or form, which make those essays less useful as authoritative references for researchers; the book's size (and cost) sometimes proves intimidating for popular audiences. Groce (1985), Baynton (1996), and Plann (1997) are excellent accounts with extensive references for those pursuing the issues from sociohistorical perspectives.

DEFINITIONS

The growing field of Deaf studies has its own terminology. Definitions for these terms reveal ideological and disciplinary issues that affect Deaf studies and also suggest how such studies fit within larger sociopolitical processes. Occasionally, educators, activists, and researchers draw on each other's works without careful attention to the subtle but significant differences in the denotations made by the original authors—distinctions often indicative of disciplinary perspectives. Efforts at more explicitly defining terms can be seen in a recent lexicon of terms used by linguistic anthropologists (Duranti 2001), including definitions for "deaf" (Padden 2001), "gesture" (Haviland 2001), "orality" (Rumsey 2001), and "signing" (Monaghan 2001). We now discuss these terms in more specific detail.

The D/d and H/h Words

The most well-known terminological quirk associated with Deaf studies is a distinction no one can hear uttered: Deaf/deaf. By 1972, Woodward used this Deaf/deaf distinction to highlight cultural identity as distinct from physiological deafness. Though widely adopted since, some scholars have avoided Deaf because they hold that the notion of Deaf identity is a bounded sociohistorical phenomenon (cf., Plann 1997 and Polich 1998); others merely avoid the orthographic awkwardness of the two terms.

Conceptually, the Deaf/deaf distinction is significant. Separating audiological issues (that is, measurable hearing levels—deaf and hearing) from those of socialization, acculturation, and identity (that is, Deaf as sociological or cultural reference) makes otherwise confusing issues far more understandable. Those who

lose their hearing late in life, for example, might be considered deaf but not Deaf. Even where this distinction is directly cited, however, usage can be inconsistent. Some authors directly address the problematic nature of the audiological and socio-logical distinctions by using the combined term d/Deaf. Wrigley, in his 1996 work on politics and d/Deafness in Thailand, argues that frequently the two phenomena need simultaneous attention. Therefore, adopting the term d/Deaf highlights the multidimensional nature of a complex situation.

For reasons presented, we use deaf and hearing to denote specifically audio-logical traits, Deaf and Hearing to denote (or emphasize) identity or sociocultural issues, and d/Deaf and h/Hearing to denote and highlight the often inherently mixed nature of the audiological and sociocultural conditions.

Within the United States, heavy emphasis on the use of "Deaf" can correlate with a strong stance on the sociopolitical nature of not being able to hear. For example, despite identifying the Deaf/deaf distinction, Baker's (1999) discussion of Deaf "ethnicity," uses the term "Deaf" to refer to both audiological and cultural situations. Though some of the groundwork for ethnic terms of Deafness was laid out as early as 1965 (Stokoe et al. 1965), by 1980, many sign language researchers had accepted the notion of cultural, if not ethnic, Deaf identity (Baker & Battison 1980, Washabaugh 1981). Johnson & Erting (1989) address ethnicity and social-ization of young deaf children. By 1994, the concept of Deaf culture, identity, and ethnicity clearly can be seen to have had global influence: at grassroots com-munity, governmental, and even international organizational levels (Erting et al. 1994). Lane et al. describe their own book as "about the 'new ethnicity'" and go so far as to consider that "a child who has not acquired spoken language and culture because of limited hearing is a culturally Deaf child, even if that child has not yet had the opportunity to learn DEAF-WORLD[2] language and culture" (1996:x, cf. also 160–61). Perhaps their approach is appropriate for introducing the DEAF-WORLD to hearing people, but such usage does collapse attained and ascribed identities and other distinctions sometimes useful to keep separate.

Complementing Deaf/deaf distinctions are analogous Hearing/hearing distinc-tions; "Hearing" refers to hearing-identified society and culture (and by extension, mainstream society and culture), and "hearing" is used to denote only audiolog-ical ability. Many researchers have adopted a Deaf/deaf distinction without any corresponding Hearing/hearing distinction, arguing that the latter is not a self-ascription generally used by hearing people. With these two sets of distinctions, we can now understand an American Sign Language (ASL) expression glossed as either HEARING-THINKING or HEARING-IN-THE-HEAD, a term used (sometimes pejoratively) by signers as a label for deaf individuals attributed as holding primary identification with Hearing society—what might be called passing in other con-texts. This sign is sometimes used as a synonym for "oralist," meaning someone

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[2]The term DEAF-WORLD (in this all-capitalized form) is a gloss representing a sign in American Sign Language. Linguists use glosses as one-word equivalents (though not as true definitions or translations) for indexing lexical items in a language. The issues of transcription are raised in the section on methodologies, below.

who has been trained to lip-read, or speechread, to use more precise terminology (cf., Berger 1972).

Of course, issues of deafness, whether sociocultural or audiological, are not limited to binary distinctions. Eckert (1989, 2000) has shown with the enduring U.S. cultural concepts of Jocks and Burnouts that even those individuals who resist categorization and identify themselves as "In-betweens" are doing so using terms consistent with a pervasive hegemonic ideology. Similar phenomena are likely occurring with social categorizations involving deafness, often as part of larger sociohistorical processes (cf., Baynton 1996, Plann 1997). Thus, two more problematic categories have already been identified: Hard-of-hearing (Grushkin 1996, 2003) and offspring of deaf parents (Preston 1994). Both these authors raise issues of these respective categories as not merely steps in-between along a bipolar spectrum, but rather, that each category can be its own center—to echo the call by Padden for recognition of Deaf views on their own terms (1980).

The additional question of multiple, at times conflicting, Deaf, ethnic, or cultural identities is not new and has been addressed in Deaf studies for some time now. For example, Woodward, Erting, and Markowicz examined Black signing in Atlanta, comparing patterns across Northern and Southern Black and White signers in the mid 1970s (Woodward 1976). LeMaster & Monaghan (2002) have identified the first 20 years of sign language studies as focused on whether sign languages were "real" and autonomous languages (cf., also Washabaugh 1981), with studies on variation dominated by issues of language contact and mixing along an ASL/English continuum, though with some scholars attending to other signed and spoken language in other countries (e.g., DeSantis 1977; Woodward & DeSantis 1977a,b; Deucher 1984; Boyes Braem 1985; Kyle & Woll 1985; Schermer 1985; LeMaster 1990). Pre-1980s sign language work was predominantly conducted by linguists (with a noted exception of Carol Erting); however, as anthropologists, including linguistic anthropologists, began to work on sign language issues in the 1980s, there began a shift toward studies of variation along the lines of Deaf identities—the 1990s were a watershed period for such scholarship. Variation within the United States is addressed in the works of LeMaster (1977, 1983, 1990), Carmel (1987), Erting (1981, 1985), Hall (1989), and Johnson & Erting (1989). Lucas's (1989) edited volume became a common reference, and other books began to disseminate the cultural aspects of Deaf identity to lay audiences, among the most famous sources being *Deaf in America: Voices from a Culture* (Padden & Humphries 1988).

Signing and Sign Language

As we have just seen, sign languages play a significant role in the sociocultural studies of d/Deaf people. Just as Boas (1911) and Malinowski (1984 [1922]) recognized that ethnographers need at least some command of the languages used by the peoples they study, researchers of d/Deaf communities have understood the role of language, and especially signing and sign languages, as a central concern. Whether language is studied to reveal taxonomies used by groups to categorize

and communicate about phenomena in their environments or examined for its role as symbolically marking identity, alignment, or distance and difference (cf., Barth 1969, Markowicz & Woodward 1982 [1978]), the "languaculture" (Agar 1994) of many d/Deaf groups uses signing as a key element, and so signing and sign language have merited much focused attention.

For those unfamiliar with sign languages, a few preliminary points must be mentioned before going further. Linguists have developed clear distinctions between natural sign languages (i.e., sign languages not consciously invented), artificial sign languages, gesture, and homesign. Because issues addressing linguistic communities and ideologies involving sign languages are raised below, it is important to clarify these distinctions.

Natural sign languages are now generally accepted by linguists as complex, grammatical systems with all the core ingredients common to other human languages (e.g., Klima & Bellugi 1979, Foley 1997, p. 61). The fundamental distinction between sign and spoken language is that the sets of articulators are different; for spoken languages the articulators are those required to produce sound (the vocal tract), while for sign languages the hands and body (including face) are used to encode both lexical forms and grammatical relationships.[3] The use of these visible (rather than audible) articulators allows signers to use three-dimensional space in complex linguistic ways and gives sign languages a unique quality not shared with spoken languages. (Also, a tactile form of natural signing is sometimes used by deaf individuals without sight.) With spoken languages, distinct regions and groups often have their own distinct languages. Similarly, numerous distinct sign languages exist around the world. (This fact directly contradicts a persistent lay notion that there is a universal sign language used by most deaf people.) And like spoken languages, these languages do not neatly correspond to national or geographic boundaries, although their distribution and patterns of change are certainly affected by these factors.

Artificial signed languages have been developed in many countries, often as pedagogical tools for teaching spoken languages to deaf individuals, though sometimes intended as a primary means of signed communication in and of themselves. These are manually coded versions of their corresponding spoken languages, though they sometimes borrow from the lexicon of natural sign languages while employing morphosyntactic features to model the spoken language (for example, articles and the verb 'is' will be encoded in Signing Exact English (Gustason et al. 1980), while ASL has no corresponding elements).

Fingerspelling is a language contact phenomenon and reflects the social reality that dominant (written) languages need to be dealt with by signers. Fingerspelling systems are basically written alphabets represented in a signed modality and may

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[3]The facial and other gestures are considered linguistic, not just communicative. For example, in ASL, facial gestures mark questions, indicate topic phrases, and even convey aspects of verbs, and specific movements of the body, hands, and arms can indicate subject, verb, and object agreement. However, Farnell (1995, 1999) does challenge where we draw the boundary between linguistic and nonlinguistic action.

employ one-handed (such as the one used with ASL) or two-handed forms [such as that used with British Sign Language (BSL)]. Because alphabets vary cross-linguistically, fingerspelling systems accommodating them vary also. The manner of representing particular letters may vary (e.g., one-handed vs. two-handed systems), but so might the set of letters represented. For instance, the written Spanish alphabet includes ñ, while English does not; Cyrillic alphabets differ from Roman alphabets. Thus, ASL uses a fingerspelling system that maps to English, and Nicaraguan Sign Language (ISN) uses a slightly different fingerspelling system to accommodate *ll, ñ, rr*. Other cultural factors creep in, as well, including local (nonlinguistic) gestures used by the local (hearing) society. The letter *t* as represented in ASL (a closed fist with the thumb protruding from between the index and middle finger) is a very rude gesture in countries such as Nicaragua, where the corresponding letter is made similarly, but with the index finger extended.

Sign language researchers generally regard nonlinguistic gesture (such as that used by the hearing population) as analytically distinct from sign language. *Gesture* is often communicative and may even be considered systematic, but regular linguistic traits such as grammatical agreement are not generally recognized as characteristics of gesture. McNeill (1992) and Kendon (1997) are major figures in the studies of gesture; Kendon is especially recognized for his anthropologically informed, crosscultural comparisons of gesture. Volterra & Erting (1994) have edited a significant collection of essays analyzing and comparing the gesture of hearing and deaf children, and Messing & Campbell (1999) provide a useful collection of recent work in the field. Farnell, however, reminds us that the boundary between what is generally recognized as language and gesture needs clearer theorizing, as her work with Plains Indian Sign Talk demonstrates nicely (1995).

Two other forms of signing warrant mention at this point, the first being *homesign* systems. These are ad hoc systems developed to meet an individual's or a small group's needs for communicating. Because 90% of deaf children are born into hearing families (Lane et al. 1996, p. 30), it is likely that these families will use signs that they themselves invent for their immediate needs. Morford has produced a useful review of homesign research (1996). Because homesign systems are reinvented with each case, they tend to be eclectic, idiosyncratic, and linguistically limited, and they are typically eclipsed by other more elaborate systems once children are identified as deaf and receive intervention, whether medical or through special education. Some homesign research focuses on the effects of delayed exposure to a complete language on child language acquisition, whereas other research addresses questions of innate vs. learned linguistic traits.

Contact signing is the final form of signing we mention here. As discussed above, early linguistic work on sign language focused considerable attention to determine whether or not signing (ASL in particular) was its own "real" language, and researchers discovered that signers vary their signing depending on whether or not hearing people are present. Though paradigms of pidginization or creolization were originally invoked for describing or explaining variation in signing owing to the presence or absence of hearing individuals (cf., Hymes 1971; but see also Holm 2000 for a current general introduction to pidgin and creole studies), some scholars

find such characterization as not quite appropriate (cf., Washabaugh 1981, and so what had once been referred to as Pidgin Signed English (PSE) is now generally considered contact language (Lucas & Valli 1989, Lucas et al. 2001).

DEAF AND SIGNING COMMUNITIES

Though there has been a range of studies on signing, sign languages, and communicative issues affecting deaf pedagogy, until recently there have been relatively few extended studies of particular communities of d/Deaf people. The definition of community itself is problematic, as indicated by Padden (1980). The term has been used in varied ways in such accounts as Gannon (1981), Van Cleve & Crouch (1989), Wilcox (1989), Padden & Humphries (1988), Higgins (1980), Lane (1984), Evans & Falk (1986), Hall (1989, 1991), and in the range of pieces in *Deaf Way* (Erting et al. 1994). Constant attention must be given as to whether the term denotes any one or a combination of group, linguistic (speech) community (cf., Hymes 1971), social network (cf., Bott 1971), imagined community (cf., Anderson 1991), ethnic group (Barth 1969, Markowicz & Woodward 1982 [1978], Edwards 1985), or even simply a population of deaf individuals (with little indication of any actual social relationships among them) in a given geographic area.

Much of the ethnographic work addressing deafness and d/Deaf communities has been done within the United States. Foster (1987, 1988, 1989, 1996) provides a series of contributions that are representative of both the manner and content of U.S. research. Higgins (1980) and Evans & Falk (1986) are both extended accounts addressing the socialization of deaf individuals with respect to each other, on the one hand, and hearing society, on the other. Schein's (1992) sociological account theorizes about when, where, and why deaf communities may form (or not). An oft-cited sociocultural-historical reconstruction is Groce's (1985) study of Martha's Vineyard. As her title, *Everyone Here Spoke Sign*, suggests, Groce examines the pervasive use of signing by both hearing and deaf Vineyarders alike. (This may best be seen as a study of a community with deaf members, rather than a Deaf community or community of deaf individuals.)

Despite early anthropological references to deaf people using language patterns distinct from their hearing counterparts (Tylor 1878), focused and extended attention on d/Deaf individuals or communities outside the United States still remains limited (Preston 1994, p. 14). Earlier forerunners include Washabaugh's (1986) work on Providence Island, Johnson (1991) in the Yucatan, and LeMaster (1990) in Ireland. Since that time, the amount of research done on d/Deaf communities has increased considerably, much of it for doctoral dissertations[4] and so has not yet reached general circulation (e.g., Monaghan 1996, Reilly 1995, R. J. Senghas

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[4]Both authors of this article recall their own difficulties convincing some of their respective faculty advisors of the anthropological significance of studying d/Deaf people as members of d/Deaf (linguistic) communities. We are happy to notice that this seems to be a passing problem.

1997, Polich 1998, Nakamura 2001, Fjord 2001). Over the last decade there have regularly been sessions with d/Deafness, d/Deaf communities, or sign languages as prominent themes at the annual meetings of the American Anthropological Association. Woodward has examined situations in Thailand and Viet Nam (2003); Devlieger has worked in Kenya (1994).

Two remarkable sources bear particular attention. First, the *Gallaudet Encyclopedia of Deaf People and Deafness* (Van Cleve 1987) provides short articles by recognized authorities on topics ranging from medical discussions of deafness to short historical accounts of many Deaf communities. Second, a number of short pieces on communities around the world are available in the 900-page volume *The Deaf Way* (Erting et al. 1994). This volume is a collection of papers originally presented at the first Deaf Way conference in 1989 and contains over 150 short works by authors from around the globe including many Deaf individuals, some organizers and activists, and quite a few scholars. The discussions and rhetoric in these and other works clearly show that research in Deaf studies has had considerable influence in the DEAF-WORLD (cf., Lane et al. 1996 for a discussion of this term), intended and otherwise, which demonstrates both the general relevance of academic studies of d/Deafness and the difficulties of bringing academic subtleties to widespread audiences.

THEORETICAL ISSUES

We mentioned above that the current state of research on d/Deaf communities might arguably be considered an early, descriptive phase akin to that of Boasian American ethnography of the early twentieth century. Nevertheless, the research on d/Deaf and signing communities provides data suitable for anthropological analyses according to several varied theoretical approaches and provides useful cases for anthropological comparison with cases that do not involve deafness or signing. The most promising theoretical issues can be categorized into general areas: agency and models of deafness, child socialization, imagined communities and social networks, linguistic (speech) communities, language and linguistic ideologies, World Systems, and global cultural flow. Let us take these in turn.

Agency and Models of Deafness

One theoretical paradigm that has received considerable attention juxtaposes the cultural model of Deafness with the entrenched medical, infirmity, clinical, or pathological model (Johnson et al. 1989; Woodward 1982; Lane 1989, 1990, 1992). Much of our discussion of the d/Deaf identities above reflects aspects of this central theme. Cokely & Baker (1980a, p. 16) provide an early discussion and review of the distinctions between these two different types of models. Perhaps it is unfortunate that these two contrasting models have been denoted as medical vs. cultural because clearly the medical model is one particular cultural model.

(Polich 1998 offers a third model, the eternal dependent, which she argues more accurately reflects other situations such as that of Nicaragua, and we expect that yet more models of deafness remain to be identified.)

The *medical model of deafness* is one based on deficit theory and holds that deafness is the pathological absence of hearing and that such a hearing-impaired individual is therefore disabled because of faulty hearing. This perspective is sometimes called the medical model because medical procedures (such as cochlear implants) are characteristic of responses made by (hearing) parents of deaf children and often involve extensive intervention by medical professionals. Higgins (1980), drawing on Goffman's notions of spoiled identity and stigma (Goffman 1963, also cf., 1959), discusses the predicament of deaf individuals in Chicago and how they negotiate their lives in light of the larger society's conception of them as disabled. Differing notions of deafness, treatment, and deaf pedagogy reveal enduring issues that directly affect daily lives of deaf children and their families, especially issues of child language socialization.

In contrast to the medical model, a *cultural* or *sociocultural model of d/Deafness* has emerged and has been widely adopted in one form or another (Markowicz & Woodward 1975; LeMaster 1983, 1984; Padden 1980, 1996; Padden & Humphries 1988; Lane 1990, 1992; Parasnis 1996). In this view, deafness is identified as one range within the larger spectrum of human variations, and this view assumes that deafness allows for an alternate constellation of very human adaptations, among the most central being sign languages. When individuals or groups accept sign languages, other language-associated practices are also recognized, including traditional story-telling, patterns of greetings, introductions, and word-play; deaf people are thus seen as part of larger social entities such as communities.

At least implicit in these models, though at times rising to explicit levels, are issues of agency ["the socioculturally mediated capacity to act," (Ahearn 2001, p. 112), particularly acting to change lived-in social structure] and social structure. If we see societies as processes that exist and endure while changing over time, then we must identify the components of such processes. "The components or units of social structure are persons, and a person is a human being considered not as an organism but as occupying position in a social structure" (Radcliffe-Brown 1952, pp. 9–10). But the person is not entirely dissociated from the organic, and notions of body, practice, and movement need attention (Farnell 1995, 1999), especially if we recognize those bodies as operating within cultural environments. A number of different theoretical models are useful in exploring these relationships. R. J. Senghas draws on Bourdieu (1977), Giddens (1979), Harris (1989), and Lave (1988) in his analysis of changing notions of Nicaraguan Deaf personhood (1997). Polich (1998) draws on Giddens (e.g., 1979, 1984) even more directly and extensively as she uses his Structuration Theory to understand the structural causes of d/Deaf community formation in Nicaragua during the late twentieth century. Nakamura (2001) addresses social agency and structure in the politics of Deaf identity in Japan, including issues of disability and culture (cf., Ingstad & Whyte 1995).

Imagined Communities and Social Networks

Since Anderson's (1991) discussion of nationalism, the notion of an imagined community has been a useful theoretical framing device, providing some linkage between the abstractions of idealized (potential) relationships and day-to-day actions of localized groups and individuals, especially with respect to national identities. Both Appadurai (1991) and Hannerz (1992), among many others, have discussed the need for contemporary anthropologists to account for the problematic nature of communities in light of the modern (or postmodern) life, including the global migration and transmission of people and cultural forms despite the boundaries marking nation-states.

The imagination can physically locate communities, and it is useful to consider how notions of socially marked places have proved compelling to d/Deaf people in the past. Van Cleve & Crouch, in their tellingly titled *A Place of Their Own* (1989), have shown that finding or establishing places have been explicit goals for many deaf individuals, though at times such efforts have been met with rebuttals from both d/Deaf and hearing opponents alike. For example, in the 1850s, John Flournoy called for a deaf commonwealth to be established in the American territories (Lane 1984, pp. 310–11, Van Cleve & Crouch 1989, pp. 60–70). Deaf clubs are common, both in the United States and elsewhere, and accounts highlight the importance of clubs both as Deaf places and points of transmission of Deaf culture. Carmel presents a Deaf club in a city in the U.S. Midwest (1987), Hall examines folklore in a Philadelphia club (1991, 1994), Andersson discusses a club in Stockholm, Sweden (1994), and Monaghan (1996) writes on the history of clubs in New Zealand. Sometimes individuals who identify with such places emphasize that they are Deaf places, not hearing ones. R.J. Senghas (1997, pp. 6–10) recounts a situation in a Deaf center in Managua, Nicaragua, where a d/Deaf individual was concerned that such a symbolic boundary was being violated through inappropriate language use.

For purposes of analysis, we might identify groups who maintain separate places (or patterns of social interaction separate from larger society) as *isolating communities*, marking themselves as distinct from others based on some unifying trait or ideal (cf., Barth 1969). Where these communities actively work to establish or maintain social or physical isolation, we could consider them separatist. These communities might be seen as either havens or virtual penal colonies, depending on the observer's position and perspective. *Assimilating communities* (a concept Bahan & Poole-Nash 1995 attribute to T. Supalla) might be seen as a complementary category, wherein deaf individuals are assimilated into a larger (hearing) community (cf., Lane et al. 1996, p. 206).[5] Assimilating communities might be seen as either *suppressing* or *accommodating* (audiological) difference. Of course,

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[5]We have often heard Martha's Vineyard referred to in romanticized utopian terms, a once-upon-a-time-and-place where deaf people were considered fully human by their enlightened hearing counterparts. Sacks (1989) also discusses visiting Martha's Vineyard.

what might be considered suppressive would be open for debate, again, depending on one's position and perspective. The cultural model of Deafness (above) has been used to justify both separatist efforts and demands that hearing society be more accommodating (cf., Ingstad & Whyte 1995 for discussion of culture and disability).

These theoretical issues of assimilation and accommodation inevitably lead us to studies of race and ethnicity, including the "burgeoning field of whiteness studies" (Trechtor & Bucholtz 2001, p. 3). Hill's (2001) discussion of the "culture of racism," Harrison's (1995, 1998) discussions of the social construction of race, and Brodkin's (1998) and Hartigan's (1999) research have all demonstrated the centrality of these issues to anthropology, and much of this theoretical work applies to Deaf studies just as well. It is no coincidence that Alexander Graham Bell worried about the possibility of a "deaf race" (1969 [1884]). Furthermore, the notion of "disabling" societies (Ingstad & Whyte 1995) can be seen as one particular incarnation of the same underlying paradigms, and the call for a culturally pluralistic model of Deafness makes sense only in the racial and ethnic context analyzed in these whiteness studies. Baynton's (1996) historical account of a century-long campaign against sign language in the United States highlights the central role of nationalism, with a racial component pervading that nationalism.

Some Deaf people have proposed the terms DEAF-WORLD (Lane et al. 1996) and DEAF-WAY (Erting et al. 1994) as abstractions for imagining a social identity and cultural milieu that d/Deaf people can share, so long as a pluralistic cultural environment is established. The geographic metaphor of DEAF-WORLD is particularly salient. The DEAF-WORLD is seen as transcending national borders and invokes the experiences of d/Deaf individuals and groups as unifying events, while simultaneously celebrating the diversity of d/Deaf people in an antiessentialist manner. The DEAF-WORLD includes sympathetic hearing people such as family members who accept d/Deaf people on their own terms.

Efforts toward uniting or networking deaf people have had a long history. The first formal gathering, a Parisian banquet, was held in 1834 (Mottez 1993); the first international gathering (also in Paris) was held in 1889 (Lane 1984, p. 404). These activities were just a few of those that led to the formation of clubs and associations, including the National Association of the Deaf in the United States and the World Federation of the Deaf. These membership organizations, though, have recently been experiencing a decline, possibly owing to class-related issues (Padden 1996a). The networked nature of Deaf clubs and other social organizations in the United States (and elsewhere) has provided opportunities for deaf individuals to build and use social relationships. Some components of these social networks are comparable to the urban brotherhoods in African cities discussed by Fortes (1963), especially as d/Deaf individuals balance issues of work opportunities, housing, and social obligations. These networks are often reminiscent of those revealed by the sociolinguistic work of Labov (1972) and others (e.g., Eckert 1989, 2000).

W. Tarzia (personal communication) suggests that the notion of imagined communities resonates with Dundes' concept of folk groups as they are used in folklore

studies (cf., Bauman 1972; Dundes 1972, 1980). In this view, when some number of people share a belief or way of life and communicate about it, a folk group is formed, and folklore is the group's shared property and consists of beliefs, sayings, jokes, anecdotes, stories, songs, rituals, and material artifacts (in effect, a very Tylorian definition of culture as used in anthropology). Indeed, Hall identifies her research as a study of the folklore among Deaf people (1989, 1991, 1994). T. Supalla has also begun a Deaf Folklife Film Collection Project (1991).

The social networks working within and between these imagined (but also very real) communities are key to understanding these communities, and the significance of communicative patterns along such networks brings us to the studies of speech communities.

Linguistic (Speech) Communities and Sociolinguistic Variation

Simply put, *linguistic communities* are people who can and do communicate with each other using language. Because communication, and especially sign language, has been a central issue in Deaf studies, it is not surprising that the notion of linguistic communities has been applied to much of the research on d/Deaf communities.

As part of his ethnography-of-speaking approach to the study of discourse, Hymes (1974) developed the notion of communicative competence to address the real-life, pragmatic contexts of human communication, in direct contrast to Chomsky's notions of the "ideal-speaker-listener, in a completely homogenous speech-community" (1965, p. 3). The approaches of Hymes and other sociolinguistic researchers recognize the heterogeneity of actual speech communities and treat linguistic variation as not (always) merely "error" or troublesome noise, but as possible indices of social context relevant to the communicative action. Thus, notions of register, dialects, and sociolects become interesting and useful, and integral even in the study of syntax and morphology.

Anthropologists and sociolinguists analyze patterns of linguistic behavior, frequently identifying correlations between patterns of linguistic variation and other social phenomena such as social networks, some of these being class-based (Labov 1972, Eckert 2000), some based on other social categories such as race and ethnicity (Trechter & Bucholtz 2001), gender, or age. Likewise, sign language and Deaf studies scholars also have addressed these issues. Patterns of linguistic variation along racial/ethnic lines have been documented by Woodward, Erting, and Markowicz (Woodward 1976), gender has been central to LeMaster's Irish studies (1990, 1997, 2002), and age has been a factor in the work of A. Senghas on Nicaragua (1995, A. Senghas & Coppola 2001) and R.J. Senghas (1997, 2002). Lucas et al. (2001) have shown the importance of regional and other kinds of variation in the United States. Zimmer (1989) and Monaghan (1991) have both studied U.S. register variation. There is also a significant literature on contact languages including that by Lucas & Valli (1989, 1989). See LeMaster & Monaghan (2002) for a short review of works on the sociolinguistic variation in sign languages.

Language Acquisition and Socialization

In order for any communities, including linguistic communities, to survive, they must have ways of perpetuating themselves and adapting to changing circumstances. Thus, children are systematically socialized to acquire the language/s of their communities. There is a long-standing anthropological interest in the socialization of children, from Mead (1928), to Heath (1996), to the more recent work of Ochs (1988) and Schieffelin (1990). Socialization to the pragmatic aspects of language is highlighted in anthropological studies, though other aspects are often studied as well, including acquisition of grammar and semantic categories.

The cognitive and linguistic development of deaf children also raises issues of bilingual language acquisition. Grosjean (1996), Hamers (1996), and Padden (1996b) discuss the bilingual-bicultural paradigm, in which deaf children are considered members of a linguistic minority as they acquire language. Multilingualism and bilingualism are also addressed by Woll et al. (2001). For multilingual children (deaf or hearing), not only must they learn each language, but they must also learn when to use these particular languages and how to switch among them effectively. And frequently, native speakers of minority languages (including sign languages) must deal with the stigma sometimes associated with those languages.

Issues of child language acquisition are central in recent studies of a new sign language emerging in Nicaragua (R. J. Senghas & Kegl 1994; R. J. Senghas et al. 1994; A. Senghas 1995; Kegl & McWhorter 1997; R. J. Senghas 1997, 2003; A. Senghas & Coppola 2001; Pyers 2001). This case is of particular interest to psycholinguists because it is seen as a natural experiment that provides circumstances where, it is hoped, innate linguistic capacities might be more easily identifiable. Psycholinguists are specifically testing Bickerton's (1984) Language Bioprogram Hypothesis (LBH), which posits that innate language acquisition capacities held by children would predict that creolization of a new language would happen quickly and would be driven by the children's contributions more than those of the adults (cf., A. Senghas 1995; Kegl & McWhorter 1997; A. Senghas & Coppola 2001). Most of the psycholinguistic research on Nicaraguan signers is based upon experimentally controlled elicitations, and these have been good at identifying language variation based on age and time of entry into the signing community (see especially A. Senghas 1995; A. Senghas & Coppola 2001). However, extended ethnographic observations of child language socialization have yet to be started and would need to be conducted before we could exclude sociocultural processes as sources for grammatical structures emerging in this new sign language. R. J. Senghas (1997, 2003) has begun ethnographic observations, but these have not yet provided enough data to suggest how much of these structures might be innate or cultural in origin.

Language Ideologies and Linguistic Ideologies

Ideas about language affect many social processes (especially education and child socialization), and systems of related ideas are often reinforced by the syntax and

semantics a community uses. Thus, there are ideologies of language and ideologies through language. These issues have already received extensive attention within linguistic anthropology (e.g., Schieffelin et al. 1998, Kroskrity 2000; see Woolard & Schieffelin 1994 and Ahearn 2001 for reviews); therefore, only issues directly raised by studies of sign languages or d/Deaf communities are mentioned here.

The most central ideological issue addressed by sign language and Deaf studies scholars is that of *oralism*. In most discussions of language, *oral* is used to denote spoken (usually face-to-face) interaction, in contrast to *written*. However, in deaf pedagogy, Deaf studies, and sign language research, the term oral is used in contradistinction with *signed* or *manual* (this last term incorrectly implies that sign language is only on the hands). Oralism, then, is an ideology that privileges spoken (and written) languages over signed ones, often denying the validity or linguistic nature of signing altogether. Researchers have been explicitly aware of this ideology as early as Stokoe's (1960) work, but the ideological issues themselves go back centuries. Plann (1997) documents an emphasis on speech that goes back to sixteenth-century Spain, including accounts of deaf individuals being allowed to inherit estates or be ordained as priests only after demonstrating that they could speak, read, and write. There has been considerable tension between oralists and manualists, especially over the last 150 years, and much of this conflict has been waged within the circles of deaf pedagogy. The accounts of Lane (1984), Baynton (1996), Plann (1997), and Monaghan (2003) all discuss this conflict; Baynton's account connects the oralist ideologies to other sociohistorical phenomena in U.S. history, including gender, nationalism, and evolutionism. Monaghan provides an international historical overview.

One current and heated version of oralist ideology involves cochlear implants as a medical/technological solution for deaf children. This conflict pits well-intended—and frequently well-informed–Deaf community members against equally well-intended medical practitioners and parents who wish to implant an electronic device in deaf children to allow them the possibility to hear (cf., Fjord 1999–2000, 2001).[6] Yet hearing parents, wishing their deaf children to be socialized as members of their own families' sociocultural groups (with all their familiar traditions and language), often do not recognize grounds for any conflict, sometimes even considering Deaf activists against cochlear implants as inappropriately intruding upon family rights and obligations.

The contest between the ideologies of oralism and signing has received explicit attention in sign language studies for 40 years now. Discussions on the interactions between the sign language and literacy-oriented versions of the term, however, are much more recent. Monaghan (1996) and Branson et al. (1996) both look at how oral (in Ong's usage) can be used to discuss signed performances, whereas Farnell (1995, 1999) points out how literacy-influenced models of language often blind

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[6]Unfortunately, the training of medical professionals, including those who specialize in deafness, often provides relatively cursory training in sociocultural theory and even less in epistemology.

researchers to the permeable boundaries between language and gesture. Rumsey (2001) addresses these issues in his explication of the term "orality," but [as Polich (2000), points out] most of the recent work on language ideologies (e.g., Woolard & Schieffelin 1994, Schieffelin et al. 1998, and Kroskrity 2000) does not address this dimension.

Other more specific ideologies have also been identified, including particular languages being used as symbols for their communities, such as ASL for the U.S. Deaf community (Padden 1980, Padden & Humphries 1988, Lane et al. 1996), or *Idioma de Señas de Nicaragua* (Nicaraguan Sign Language or ISN) in Nicaragua (R.J. Senghas 1997). Nakamura addresses the contest over signing as a mark of Deaf identity in Japan (2001, 2002), while Monaghan (1996) looks at how the close-knit Deaf clubs of New Zealand changed from supporting oralism to actively promoting New Zealand Sign Language. There is also much sociolinguistic and historical work needed to document variation in many locations to determine whether one or more sign languages are used in specific places. Van Cleve (1987) and Erting et al. (1994) provide numerous accounts of the existence of local sign languages, and they are often named after the countries (nation-states) in which they have arisen. The papers in *Many Ways to be Deaf* (Monaghan et al. 2003) review these issues in countries ranging from Switzerland to South Africa, including Woodward's carefully documented discussion of seven sign languages in Thailand and Viet Nam.

In another *Many Ways* article, Schmaling (2003) shows how linguistic colonialism has affected Deaf pedagogy in Northern Nigeria. Her title, "A is for Apple," makes reference to an imported ASL sign that is relatively meaningless to locals (because apples are not generally available to this community). Both R.J. Senghas (1997) and Polich (1998) observed similar issues in Nicaragua concerning the selection of signs for the ISN dictionary (ANSNIC 1997).

Bilingualism and biculturalism are ideological issues that affect d/Deaf communities. These topics have been addressed by Johnston et al. (1989), Davis (1989), Grosjean (1992), and Lucas & Valli (1992), among others. Parasnis (1996) has edited a useful collection that addresses several aspects of sign language bilingualism (especially in the United States). Chapters include Hakuta & Mostafapour's (1996), Meath-Lang's (1996), and Stone's (1996) work on education; Hamers' (1996) and Padden's (1996b) on the relationship of cognitive and language development to identity; Padden's (1996a) and Emerton's (1996) work on community and biculturalism; and Bateman's (1996) work on politics.

So far, we have focused on ideologies of or about languages. Linguistic ideology may be considered as ideology through language because grammatical structures and terms (i.e., lexicon and categories of concepts) may possibly influence actors' predispositions toward certain patterns of social thought and action (e.g., Whorf 1995 [1941], Lucy 1995 [1985], and Silverstein 2000; see also Hill & Mannheim 1992 for a review). Linguistic communities of signers may prove to be interesting groups to study because the visual/spatial modality of their language presents structural possibilities unseen in spoken languages. If different linguistic patterns are

likely to induce or perpetuate different (perceptions of) realities, then sign/spoken language contrasts should be demonstrably linked to differing structures in conceptions of reality (cf., for studies of gesture, Volterra & Erting 1994; Messing & Campbell 1999).

World Systems and Global Cultural Flow

Anthropologists have recognized the global nature of culture and social relations, especially with regard to nationalism or socioeconomics [Wolf 1982, Appadurai 1991; cf., Foster's review (1991)]. Deaf communities have been particularly affected by these relationships, especially given the international transmission of deaf pedagogies (Lane 1984, Plann 1997, Monaghan 2003, Monaghan et al. 2003), which are so often linked to government policies on education. The 1880 Congress of Milan is the most well-known historical example. This meeting marked the inception of a worldwide campaign promoting oralist pedagogies and the active suppression of sign languages. At this conference of educators and pedagogues of deaf special education, deaf participants were procedurally excluded from participating in a vote which ultimately supported a policy proposal that promoted oralism and discouraged the use of sign language in deaf education. The same year, however, was also when the first national conference of deaf people in the United States was held in Cincinnati, Ohio. Delegates to this meeting roundly denounced the Milan proceedings, showing that both the suppression of and support for signing were international (Lane 1984, pp. 386ff, 394–95).

A number of recent ethnographic works highlight the complex relationships between larger sociocultural, political, and economic trends and local sociocultural phenomena. Bagga-Gupta & Domfors (2003) discuss how Sweden's reforms in the deaf education system were directly influenced by American sign language researchers, including Stokoe. R. J. Senghas (1997, 2003), in turn, shows how the Swedish National Association of the Deaf affected the Nicaraguan d/Deaf community during the early stages of its formation. Pursglove & Komarova's (2003) work on Russia and Aarons & Reynolds' (2003) on South Africa show how larger national reforms such as *Perestroika* and the end of apartheid affect local d/Deaf communities.

Hannerz's (1992) notion of global cultural flow is useful for analyzing such situations, as it separates the observable cultural forms involved from the meanings ascribed to them by recipients and observers of these forms. Hannerz's approach is also compatible with the identity and language ideology issues mentioned above, especially given the center-periphery nature of Deaf institutions such as Gallaudet University in Washington, DC, the World Federation of the Deaf, and the many national Deaf associations in numerous countries that are often based in capital or central cities. However, changes in communications technologies, especially the introduction of real-time, point-to-point video communications, may bring radical changes in the patterns and forms of the global cultural flow. Keating (2000) and Keating & Mirus (2000) have been looking at how signers modify their signing

to accommodate video interaction through computers, a technology as significant for deaf signers as the telephone has been for hearing people. The implications of these developments bear further inquiry.

METHODOLOGICAL ISSUES

Methodological issues are certainly intertwined with theoretical ones, but a few particular central issues have arisen in the studies of d/Deaf communities and sign languages; these issues bear attention here. Transcription systems are proving problematic, with no single transcription system taking a dominant position yet. Other methodological issues are not limited to deaf studies or sign language research but reflect unresolved problems general to anthropology and ethnography, such as informed consent and the need for more ethnographic researchers working in teams.

Transcription Systems

For ethnographers, especially those wishing to document language use and variation, transcription of language is important for both data collection and subsequent analysis. Fine phonological analysis, for example, allowed Labov (1972) to find patterns in the distribution of vowel sounds among (hearing) fishermen on Martha's Vineyard or sales clerks in New York department stores (Labov 1972).

Similar fine-grained phonological[7] patternings can be found in sign languages, and documenting them can help us understand the significance of language variation among signers. For example, Nicaraguan signers use some signs nearly identical to ASL forms (e.g., ASSOCIATION and TREE), some that suggest a relation to ASL forms (e.g., CLEAN), while other signs are clearly unrelated (ANSNIC 1997). Analyzing distribution of use allows us to see which signers are most clearly allied with Nicaragua's national organization (cf., R.J. Senghas 1997, pp. 453–55). Because educational systems (including special education programs for deaf students) are often government-controlled, and frequently implicated in ideological processes, Baynton's (1996) and Plann's (1997) accounts would suggest that phonological analysis of sign language would also be useful in studying possible colonizing patterns of language use.

No community of signers has adopted any conventional transcription system for general use, at least, not one in any way analogous to the widespread literacy that has been adopted for spoken languages. Instead, signers often learn to read and write a spoken language. For example, ASL signers often learn to read and write English, and Nicaraguan signers will likely try to learn written Spanish. So, in

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[7]Despite the original sound-oriented connotations of phonology, this is the term currently used in sign language linguistics to describe patterning in minimal units like handshape and place of signing.

the absence of a rapid sign writing system, videotaping sign language interactions makes the possibility of later transcription possible, but videotaping can also be inappropriate or too intrusive for certain circumstances. Thus, transcription systems of sign language remain a methodological challenge. We present here some of the current options for representing sign language, though due to space limitations, they are not addressed in detail here. Many texts use a number of these options at the same time. For example, *A Dictionary of New Zealand Sign Language* uses illustrations, English glosses, and the Hamburg Notation System, one sign-oriented transcription option (Kennedy et al. 1997).

Illustrations have frequently been used, especially for sign language dictionaries (e.g., O'Rourke 1978). The advantages are that we can see the shape of the signs, and even some movement, through the judicious use of arrows and additional cues. Illustrations, however, are both space- and time-consuming to use and are not sufficient for documenting discourse.

Glossing is more compact and conveys the central meanings in signs. Glosses are frequently used when presenting information via printed matter (e.g., papers, articles, books) and are useful indexes, especially with those already familiar with the signs discussed. (DEAF-WORLD has been a gloss we have used in this article.) Their disadvantages are that little linguistic form, especially phonology and grammatical agreement, is encoded in basic glossing. The advantage of glosses is that they are relatively easy to use, requiring minimal training. They are also easy to type or write by hand, making them flexible for spontaneous use.

Elaborated Glossing adds additional, especially grammatical, information to glosses. Much of the linguistic literature involving sign languages has adopted such systems. One standard glossing system can found in Baker & Cokely's introductory sign language text (1981). Elaborated glossing can show such suprasegmental features as eye-brow positions, eye-gaze, and body shifting, which allows both phonological and grammatical analysis. Though more complex than simple glossing and therefore requiring more training and skill, elaborated glossing is relatively easy to understand and use and is flexible enough to accommodate novel characteristics researchers might wish to incorporate. It is also relatively easy to write by hand, though it begins to become difficult when used with word processors.

Stokoe Notation was one of the first systematic efforts at sign language transcription and has had considerable influence. Stokoe (1960) and his colleagues (1965) introduced this componential transcription system originally to represent ASL. The starting point was the U.S. fingerspelling alphabet (e.g., B is used by Stokoe to represent a flat open hand with fingers together, similar to the ASL fingerspelling for the letter *b*, but without the thumb folded into the palm). However, this system does not capture fine enough phonological or morphological detail to allow for close analysis of utterances, especially for cross-linguistic comparison. Though relatively easy to write manually once mastered, it is complex and somewhat difficult to learn and is difficult to transcribe on computers.

Liddell & Johnson's (1989) *Movement-Hold* model of transcription has proved useful in fine analysis of sign languages, especially when studying aspects of verbs or grammatical agreement among subject, objects, indirect objects, and verbs. It sprung off of Stokoe Notation but is more refined phonologically, especially with regard to incorporating movement (and pauses in movement, hence "hold"). The Movement-Hold model would be useful for closer analysis of language, such as phonological or morphosyntactic variation that might be used in sociolinguistic studies, but this close level of analysis requires considerable time and the use of video.

Another system useful for fine-grained phonological analysis is the *Hamburg Notation System* (HamNoSys) originally developed by the Centre for German Sign Language. It uses symbols intended to indicate actual handshapes rather than basing the notation on any fingerspelling alphabet (the same open hand described as a B shape in Stokoe Notation would be the shape of a horseshoe with a bottom and a short line indicating where the thumb was) and also has categories for finger and palm orientation, location, and movement (Kennedy et al. 1997, pp. xxxv–xxxix). Like Stokoe Notation, it can be difficult to learn and is hard to use on computers without specialized software.

There are also a number of transcription systems that developed out of dance notation including *Sutton SignWriting* and *Labanotation*. Sutton SignWriting evolved out of the Sutton Movement writing and shorthand system and was adapted and optimized to represent sign language. It is intended to enable a sign language literacy analogous to what is prevalent for spoken languages. Examples of its use can be found at the SignWriting web site (http://www.signwriting.org) including a paper by Roald (2000) discussing the development for physics terminology in Norwegian Sign Language. SignWriting's simplified phonological/morphological basis (that is, the way signs are made from linguistic components such as handshapes, movement, and use of body locations) makes it a relatively accessible form of writing for signers, though phonological and morphological differences in sign languages require language-specific symbols.[8] SignWriting might be a useful method for ethnographers keeping ethnographic fieldnotes, where we often resort to less precise glosses.

Farnell draws on Labanotation to transcribe gesture and signing in her analysis of Plains Sign Talk (PST) used by tribes in the Plains region of North America (1995). Though more complex than Sutton SignWriting, Labanotation can also encode time, space, and a range of linguistic and nonlinguistic gesture not able to be encoded in Sutton SignWriting. Farnell's work shows that such a system is useful for analyzing sign and gesture used by hearing people, but Labanotation is again fairly technical.

Slobin and Hoiting and their colleagues have been developing the *Berkeley Transcription System* (*BTS*) (Slobin et al. 1999, 2000), which is designed to analyze the morphological level of sign languages rather than primarily the phonetic

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[8]Computer fonts for numerous specific sign languages are available.

or phonological levels. By analyzing the morphological level, these researchers begin to link the semantic levels of language (i.e., meanings) to the phonological levels of the actual forms used to encode and decode language. BTS is an extension to the CHILDES (Child Language Data Exchange) system (Sokolov et al. 1994) being used for linguistic and psycholinguistic research of spoken languages, including studies of language acquisition and linguistic cognition. One current project is the analysis of sign language "classifiers" (Slobin et al. 2000). A collection commented upon by Lucy (2000) suggests that classifier systems in general (i.e., those of spoken languages, but certainly those of sign language should be included) are pertinent to studies of linguistic relativity (cf., Lucy 1992a,b). It is still too early to evaluate the success of the BTS project, though if successful, the implications would be significant for both signed and spoken languages.

Discourse Analysis

Despite impediments involving transcription, effective work has been done on identifying discourse structures in deaf interactions. For example, the extended nature of Deaf good-byes is also well known (cf., Johnson 1994, Lane et al. 1996, pp. 452–55), and ritualized patterns of introductions such as asking whether other family members are deaf are consciously taught as part of ASL classes (Cokely & Baker 1980b, pp. 60–77). The analysis of such discourse is assisted by specialized software packages such as SignStream 2.0 and MediaTagger, which make tiered transcriptions linked to video data far more easy to manipulate. Consumer-grade digital video cameras and software applications such as iMovie 2 make sophisticated video processes extremely affordable and portable, even in remote locations such as Nicaragua (cf., A. Senghas 2001, Pyers 2001). These technological breakthroughs should enable considerable advances in sign language discourse analysis (cf., Shiffrin 1994) by allowing capture and analysis of transitory discourse. Metzger & Bahan's (2001) discussion of discourse analysis suggests a promising future for these approaches in sign language research (cf., for example, Mather 1987, 1994 for adult-child interaction; Celo 1996 for work on interrogatives in Italian Sign Language; and Roush 1999 for indirection in ASL).

However, with the increasing use of video technology for transcription and discourse analysis methodologies, a serious ethical concern arises. Especially as video becomes linked to tiered transcription systems for sign language (such as with SignStream), presenting actual utterances as linguistic data without revealing informants becomes increasingly difficult. Though we certainly promote the goals of Human Subjects Review (HSR) processes (cf., American Anthropological Association's Statement on Ethics [1998], especially the first obligation of ethnographers being to the people they study), we must raise the issue that current HSR procedures do not adequately address the problems of videotaping sign language subjects, nor the complex issue of informed consent. Most university HSR procedures overlook completely how culturally bound the concepts of informed and consent are, not recognizing that Western legal concepts of the individual as a person do

not accurately reflect concepts in many cultural systems. These issues are of central concern during ethnographic research, particularly during the collection of naturally occurring discourse involving children, especially outside the United States.

Extended Ethnographies and Research Teams

We would be nowhere near the first to suggest that anthropological ethnographers should work in teams more frequently. Yet the nature of anthropological research involving sign languages usually requires very time-consuming analysis owing to the visual modality of the languages involved, making the importance of teamwork of even greater concern for studies of Deaf communities. Interdisciplinary collaboration improves the development of theory and methods as well. One of the authors (R. J. Senghas) notes that he has often benefited considerably from the informal cooperative relationships he holds both in the field and back at home with several colleagues from other disciplines, especially his sister, A. Senghas. In fact, he began his first fieldwork session in Nicaragua as a field assistant and cameraman for her (R. J. Senghas 1997, p. 6), and a recent joint presentation (R. J. Senghas et al. 2001) presents fruits of ongoing collaborative relationships.

Teamwork also facilitates diachronic analysis. Considering that only recently have researchers focused on documenting d/Deaf communities, there is a great need for data collected over time so that trends may be analyzed. Many of the accounts of d/Deaf individuals or d/Deaf communities over the past several centuries are anecdotal; a number of these have no known origin, and few have been informed by the social science disciplines. We need to build up not just the sign language corpus available to researchers, but the detailed ethnographic data that provide crucial sociocultural context for interpreting this corpus. For example, ethnographic data would help support work on child language socialization (including ideological issues), as well, and would be central in studies of critical discourse analysis (CDA) (Blommaert & Bulcaen 2000). If we keep in mind the goal of developing ethnographically rich bodies of data, the advantages of longitudinal teamwork, including the establishment and maintenance of the research infrastructure (labs, equipment, field site quarters, not to mention the supporting social relationships), seem clearly worth the necessary investment.

CONCLUDING COMMENTS

The past twenty years have shown a remarkable increase in the research on sign languages and d/Deaf communities. Major advances are being made, but the ethnographic component is only just starting. As we build these ethnographic accounts, the research must be seen as conducted among particular deaf people(s) in their particular places, at particular times, while interacting within particular circumstances. Nevertheless, the groundwork has been established, and the findings from research on d/Deaf communities and their sign languages are already contributing to general theoretical discussions in anthropology and other disciplines.

The implications of this research have begun to receive widespread attention, both within and without the academy, and to affect even lay notions concerning deafness and sign languages. Given recent breakthroughs in transcription systems, video technologies, and transcription software applications, the next twenty years should be equally rewarding, bringing considerable advances in anthropological and linguistic theory, deaf pedagogy, and the appreciation of d/Deaf experience.

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