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Sign Languages

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Abstract and Keywords

This chapter focuses on sign languages as natural human languages. It examines the historical and metaphysical prejudice against sign languages within a phonocentric Western tradition. The validation of signed languages has resulted in a revolution in understanding of the human language capacity, which also calls for rethinking assumptions of the nature of literature and literacy. When examined more closely, signed languages figure prominently within philosophical considerations of language, from Plato to the present. Contemporary concerns with sign language focus on their endangerment, due to biopower ideologies and institutions that seek to discourage the use of sign languages by deaf children, promoting instead the monolingual approach of oralism. In response, deaf communities have engaged in campaigns to promote linguistic human rights of deaf children to be educated in a fully accessible language, using research that points to the many cognitive gains of learning sign language for both deaf and hearing people.

Keywords: deaf communities, phonocentrism, language endangerment, sign language, oralism

ONE of the longest enduring human misunderstandings has been the assumption that speech is the exclusive modality for natural human language. It was not until the last half of the twentieth century that linguists discovered that signed languages possess all of the phonological, morphological, and syntactical attributes of bona fide human languages. The linguistic Copernican revolution took place in the early 1960s, when linguist William Stokoe published *Sign Language Structure*, indicating that similar to spoken languages, signed languages could be broken into meaningless phonological units—handshapes, locations, and movement paths (Stokoe, 1978). These units could be combined into morphemic units assembled in grammatical structure. Like any language, signed languages can produce an infinite number of combinations from a finite number of discrete units.

This discovery was so profoundly counterintuitive that even members of the deaf community were resistant to the notion that signed languages were every bit as much members of the family of human languages as their spoken counterparts. Just as the earth may appear to be flat, and the sun appears to move around the unmoving earth, speech may appear to be the natural mode of language due to the fact that the commanding majority of humans spontaneously acquire speech as their natural mode of communication. However, upon further investigation into the language of signing deaf individuals, the preponderance of evidence soon mounted, and the rewriting of the fundamental definition of language was underway. Over a half a century of linguistic and neurolinguistic research has now irrevocably demonstrated that the human brain can just as easily produce a signed as a spoken language, for regardless of input modality, neuronal patterning is what ignites linguistic processing (Petitto et. al., 2000). In short, we now know that “to sign is human” (Bauman, 2008).

Why did it take so long for this redrawing of the map of human language? The answer may be due, in part, to the profound influence that speech has on our understanding of our very *presence*, of our human *being*. As French philosopher Jacques Derrida has written, the human voice is much more than a mechanism for communication—it is the source for Western ideas of truth, being, and presence, which Derrida refers to as (p. 244) *logocentrism*. According to Derrida, it is the “absolute proximity of voice and being, of voice and the meaning of being, of voice and the ideality of meaning” (Derrida, 1976: 12) that has governed the Western orientation toward speech and a sense of full human presence. Derrida refers to this primacy of the voice over other forms of communication, such as writing, as *phonocentrism*. As meaning is produced within language, and language is first and foremost a spoken act, one cannot underestimate the profoundly formative role of speaking and hearing. “The system of hearing-oneself-speak, through the phonic substance ...” Derrida writes, “has necessarily dominated the history of the world during an entire epoch and has even produced the idea of the world, the idea of world-origin” (1976: 8). Fundamental to Derrida’s work is the recognition that the primacy of the voice is not a “natural” human attribute but the result of a metaphysical and historical prejudice, what Derrida refers to as “the most original and powerful ethnocentrism” (1976: 3). When seen through the lens of our phonocentric heritage, it is no wonder that it has taken until the late twentieth century to overthrow the common wisdom that “language” and “speech” were interchangeable terms.

While Derrida makes no mention of deaf communities himself, there is perhaps no more profound indication of the belief in the primacy of the voice than the history of deaf education, which has largely institutionalized this phonocentric orientation. Consider, for example, the expression of phonocentrism from an early founder of deaf education, Johan Conrad Amman, written in 1700: “The breath of life resides in the voice... . The voice is a

living emanation of that spirit that God breathed into man when he created him a living soul... . What stupidity we find in most of these unfortunate deaf... . How little they differ from animals” (Lane, 1996: 107). A century and a half later, Lewis Dudley, the founder of the Clarke school for the Deaf in Massachusetts, described his pupils as “young creatures human in shape, but only half human in attributes” (Baynton, 1996: 52). In contrast, Dudley then described a deaf girl who had recently learned to speak: “the radiant face and the beaming eye showed a consciousness of elevation in the scale of being. It was a real elevation” (1996: 52). Through the voice, a value of a fuller human presence emerged, placing non-speakers much lower on the evolutionary scale, perhaps more akin to animals and aboriginal peoples.

While the emergence of sign language studies and Deaf Studies may align with Derrida’s critique of phonocentrism, they also point out the fact that ironically Derrida remained largely silent on the question of sign languages. Rather than directly addressing the questions raised from the sign language community, Derrida cites Leibniz, Rousseau, and Saussure as they discuss deaf language use, resulting in an ironic ventriloquism on the subject of deafness. It is not imperative, of course, for all philosophers to address issues of sign language and deafness; however, Derrida foregrounded the relevance of the system of “hearing-oneself-speak” as deeply influential, and it seems highly possible that he would have addressed the phenomenon of *not* hearing oneself speak. However, without doing so, his legacy is appropriately undetermined, and his critique of phonocentric heritage misses what could be its most profound historical enactment.

In the wake of the validation of sign language, not only does the definition of language have to be reconsidered, so do the related definitions of literature and literacy. Just as (p. 245) *language* is tied to the *lingua* or tongue, *literature* and *literacy* are both tied to *littere*, or letter-written language. The question of a sign language literature is not unlike the question of an oral literature. Ong (1982) suggests that oral literature is oxymoronic, and it is equally unfathomable to think of literacy in a language without a commonly accepted written form. However, just as with the definition of language being expanded to include the wider swath of human modalities, literature and literacy are less defined by the particular modality of the language—whether through speech or sign—than with the deeper patterns of discourse, narrative, and poetics. If poetry is characterized by making heightened uses of the materiality of language, such as rhyming patterns and figurative language, then there is no reason that the “phonological” properties of a signed language cannot also be used in an intentionally poetic fashion. In fact, the multiplicity of phonological elements allows for multiple rhyming patterns to take place concurrently, unlike in spoken and written poetry. Patterned handshapes, movement paths, and locations, for example, constitute rhyming patterns and may happen in complex structural relation with each other (Bauman, 2006; Valli, 1990).

Similarly, if literacy is defined as critical thought as evidenced by engagement with texts, there is no reason that one cannot demonstrate all of the elements of literate, critical thought using a signed language. At Gallaudet University, the world's only university where educational discourse takes place in a signed and a written language, students are required to compose essays and research papers using ASL. They capture their discourse using video technology. Like any written essays, these signed essays may be evaluated for their organization, supporting evidence, and rhetorical effectiveness; they must quote, paraphrase, and cite other written and signed essays. In short, they are used as evidence of patterns of academic discourse that are hallmarks of literate thought—yet without writing (for more on the notion of sign language literacy, see Kuntze, 2008).

Any examination of sign language must be mindful of the paradigm-shifting nature of signed languages. Commonly held notions of some of the most fundamental cognitive and cultural dimensions—language, literature, and literacy, to name a few—must be re-examined wholesale. This is what has been referred to as the “deconstruction of Western thought” since we have erected definitions and practices of cultural expression on an erroneous foundation of what constitutes language (Bauman, 2008). One of Deaf Studies' critical theoretical activities, therefore, involves the reconstruction of a more inclusive and accurate definition of the nature of human language and all the implications that extend from this move. In this way, Deaf Studies scholars foreground the ethnocentric orientation of phonocentrism, aligning the field with postcolonial critiques of language, power, and identity. Just as Derrida critiques Levi-Strauss's logocentrism within the context of colonial anthropology, Deaf Studies scholars have drawn attention to the colonial relations of power that have been erected within institutions of deaf education and health care (Ladd, 2003).

Yet, it is important to note that while a whole set of phonocentric assumptions have held sway for centuries, there has been a history of speculation about the nature of sign languages and of deafness that has run through the course of Western thought. At times, thinkers have openly wondered about the fully human dimension of signed languages.

(p. 246) Before examining contemporary critical issues in relation to signed languages and society, having a brief historical overview of this ongoing discussion will create a backdrop of intellectual history in which to place contemporary issues.

Sign Language and the History of Ideas

Throughout the history of ideas regarding language and human communication, philosophers have often expressed an anxiety about the limitations of spoken languages based in the fundamental arbitrary relationship of sounds and their referents. This

uneasiness has led philosophers to speculate on the social and semiotic benefits of signed languages of deaf communities. Within this long history of fascination among Western philosophers and writers, signed languages have often been seen as playing a role in the origins of language, as having a more intimate relationship with the natural world, as offering the potential for a transnational, universal medium of communication, and as opening up aesthetic possibilities within the visual and tactile realm not afforded by spoken and written languages. This perspective of signed languages may take its place alongside anthropologists' romantic views of oral cultures, such as Levi-Strauss's contention that the Nambikwara were a peaceful people until the advent of writing (Derrida, 1974). Rather than being seen as a peripheral concern of a few philosophers, the role of deaf communities and their signed languages have played a central role in philosophical inquiries into the nature of language, beginning as early as Plato's dialogue on the nature of names, *Cratylus*, written in 360 B.C.E.

In one of the West's earliest reflections on the nature of language, Plato's dialogue turns toward the topic of a deaf signing community at precisely the time when Socrates and Hermogenes have reached a dead end on the question of how very first, original names could become attached to particular meanings though sound. At this critical juncture in the dialogue, Socrates muses,

Suppose that we had no voice or tongue, and wanted to communicate with one another, should we not, like the deaf and dumb, make signs with the hands and head and the rest of the body?

(Plato, 1998)

While this foray into considering an alternative gestural origin of naming is more of a short detour than an extended journey, it nonetheless anticipates centuries of speculation to come about fundamental questions concerning the origin of language, and how naming is possible in the first place. While we know that signed languages are not ideographic languages, recent linguistic research has demonstrated how the presence of iconicity does not lessen sign language's full linguistic capacity to convey abstract ideas (Taub, 2001; Wilcox, 2001). In fact, the use of metaphoric iconicity allows for signed languages to make the initial bond between signifier and signified, and to reveal the processes of thought within a visual tableau, adding a particularly powerful semantic medium.

(p. 247) Following in this tradition, St. Augustine, like Plato, invokes signing and deaf individuals as a means to deepen his discussion about the possibilities of a gestural medium that has great pedagogical value. In *The Teacher* (389 C.E.), Augustine asks his son, Adeodatus:

Haven't you ever seen that men "converse" with deaf people by gesturing? That deaf people themselves, no less by gesturing, raise and answer questions, teach, indicate all the things they want, or at least most of them? When this happens they show us without words not only visible things, but also sounds and flavors and other things of this sort?

(Augustine, 1995: 100–101)

Predating the claim about the potential for signed languages to convey abstract ideas by a few hundred years, Augustine buttresses his argument about the value of nonverbal communication as a means of teaching and learning, of showing in addition to telling.

The pedagogical value of a visual language was not lost on Leonardo da Vinci, who believed that sign language of deaf individuals could instruct painters how to portray the inner thoughts of a subject through outward expressions. Da Vinci was not just speculating on this matter, as he collaborated with a painter whose brother, also a painter, was a deaf sign language user. In his *Treatise on Painting*, da Vinci writes,

The forms of men must have attitudes appropriate to the activities that they engage in, so that when you see them you will understand what they think or say. This can be done by copying the motions of the dumb, who speak with movements of their hands and eyes and eyebrows and their whole person, in the desire to express the idea that is in their minds. Do not laugh at me because I propose a teacher without speech to you, who is to teach you an art which he does not know himself, for he will teach you better through facts than will all the other masters through words. Do not doubt such advice for these men are the masters of gesture and understand afar that which one says, when he fits the motions of his hands to the words that would speak.

(quoted in Mirzeoff, 1995: 105)

In addition to the pedagogical value of signing, the potential for a language of universal intelligibility stoked the imagination of early modern and Renaissance thinkers. Michel de Montaigne held that the capacity of speaking with the hands was a universal human attribute, citing the use of gesture by children, lovers, and mutes who "dispute argue, and tell stories by signs" (Rosenfeld, 2001: 31). Indeed, the perceived universal nature of gesture and signed language ignited the imagination of many Renaissance and early modern philosophers.

Musing on the possibility of a full society that could develop through the language of gesture alone, Rousseau anticipates the notion of neuroplasticity, which has been confirmed through contemporary research. Noting that individuals can communicate

through gesture across linguistic divides, Rousseau arrives at a rather contemporary observation about the pliable nature of human communication. “If these traders,” writes Rousseau,

had been blind, deaf, and mute, this would not hinder their understanding of each other; which shows that of the two senses by which we act, one alone will suffice to (p. 248) form a language. It appears again, by the same observations, that the invention of the art of communicating our ideas depends less upon the organs we use in such communication than it does upon a power proper to man, according to which he uses his organs in this way, and which, if he lacked these, would lead him to use others to the same end.

(Rousseau, 1986: 10)

Thus, while the credit for the validation of the linguistic nature of signed languages usually goes to William Stokoe, a host of writers centuries before him have claimed that there is nothing inferior about signed languages.

As Rousseau gained insight on the multimodal nature of language, Denis Diderot used gestural language as a means to determine the original and natural order of thought. In his *Lettre sur les sourds et muets*, he entered the debate on whether French or Latin was a superior language. He proceeded by imagining a deaf individual “who would forgo the use articulate sounds and try to make himself understood by gesture alone,” which would resemble, Diderot claimed, the original and natural order of words (quoted in Rosenfeld, 2001: 46).

The long history of thought regarding sign languages and deaf communities has been framed exclusively through the voices of hearing philosophers and thinkers—until the last quarter of the eighteenth century. In 1779, Pierre Desloges, a deaf Parisian bookbinder, took up his pen to let the world know that deaf individuals and communities flourish when they are able to congregate and develop a signed language. He writes,

nature has not been as cruel to us as is commonly assumed; it always compensates in one of the senses for what is absent in the others. The privation of hearing makes us more attentive in general. Our ideas concentrated in ourselves, so to speak, necessarily incline us toward reflectiveness and meditation. The language we use among ourselves, being a faithful image of the object expressed, is singularly appropriate for making our ideas accurate and for extending our comprehension by getting us to form the habit of constant observation and analysis. This language is lively; it portrays sentiment, and develops the

imagination. No other language is more appropriate for conveying great and strong emotions.

(Desloges, 1984: 37)

Desloges continues,

I cannot understand how a language like sign language—the richest in expressions, the most energetic, the most incalculably advantageous in its universal intelligibility—is still so neglected and that only the deaf speak it (as it were). This is, I confess, of those irrationalities of the human mind that I cannot explain.

(Desloges, 1984: 46)

Desloges was writing at a time when the popularity of manual languages was on the ascendance. In fact, Desloges and others were published and invited into salons in Paris (p. 249) to discuss observations regarding the nature of sign language. Popularized by Condillac, Diderot, and Rousseau, and through public demonstrations by the Abbé de l'Épée, sign language became a common fascination in the late eighteenth-century Parisian scene. Even the revolutionary leader Talleyrand wrote that sign language could become “perhaps the first method for making the mind perfectly analytical and for putting it on guard against the multitude of errors that we owe to the imperfection of our ordinary signs” (Rosenfeld, 2001: 123).

The age of seeing the possible gains of sign language waned in the nineteenth century (Baynton, 1996) and along with it came the formal pathologization of deafness that would be targeted in policies within medicine and education dedicated to eradicating sign language. The reasons for this decline in the status of sign language can be traced to the emergence of normalcy, evolutionary science, nationalism, and eugenics. Upon closer examination, we see that the emergence of *deafness* as a medicalized category takes place within the simultaneous emergence of other regimes of biopower, such as those unearthed through Foucault's archaeologies. In fact, Philippe Pinel, who figured so prominently in *Madness and Civilization*, was the mentor of Jean-Marc Itard, who applied his teacher's methods of observation and classification with the “wild boy of Aveyron” at the Institut National de Jeunes Sourds, the school for deaf children in Paris. Pinel and Itard's methods were then transferred to the deaf pupils at the school, laying the foundation for the medico-pedagogy of *oralism*, in which the lines between classroom and clinic were blurred, where deaf children were to be transformed into docile bodies, with the primary goal of reproducing normative modes of communication (Lane, 1979). “In short, asylums for the deaf and dumb served as a point of convergence of discourses which, as Foucault demonstrates, all work toward the same goal: to separate the normal

from the abnormal, the hearing from the deaf, in order to normalize the transgressive Other, to eradicate all differences—while ironically exacerbating them, perpetuating the subjugation of the abnormal body” (Bauman, 2008: 10).

One of the longest lasting aspects of these discourses was the concept of a “norm” that arose in 1840–1860s in the emerging field of statistical science. When human measurements were plotted on a graph, a “normal curve,” or what would later be known as a “bell curve” emerged, with the majority of people falling in the midpoint of various measurements of human bodies and correspondingly fewer people being in each measurement the further one goes from the center. The midpoint of this curve, with the highest number of people, was considered the normal part of human populations. The idea of a normal human being allowed for a stigmatization of people with physical, cognitive, or sensory variations from the norm. This is the historical background to the nineteenth century’s firm placement of deaf people within deficit frameworks in which their hearing loss was seen as a problem to be addressed through clinical measures.

The outer edges of the curve then became seen in a hierarchical manner, with those of higher height or measuring higher on intelligence tests being seen as more (p. 250) robust physical and intellectual “stock” for the nation. Western societies saw declining birthrates and a perceived decline in physical health as proving the need for eugenic measures (Soloway, 1990). As Douglas Baynton notes, “The concept of normality in its modern sense arose ... in the context of a pervasive belief in progress” and became a “culturally powerful concept” in an era of evolutionary thought and science (2000: 35).

Language was caught up in these twinned concepts of evolution and normalcy. An earlier, more religious, era saw sign language as preceding speech in human history, thus making it an “original” language and one closer to the age of innocence before the fall of humanity from grace (Baynton, 1996). By way of contrast, an era with a view of humans as a constantly evolving species saw sign language as a relic of a primitive past. Scientists ascribed a hierarchy of races and assigned gesture and gestural forms of communication to the “lower” races. Sign languages became acquainted with savage and primitive forms of gestural communication among native peoples in colonized territories throughout the world.

The rise of discrete nation-states in the nineteenth century led to new forms of communal identity, and an important aspect of this identity was a common language. Efforts were made in many Western countries to ensure a standard form of the spoken language within the country’s borders. Eugen Weber has written of the spread of French within the boundaries of France as an important state project throughout the nineteenth century. Whereas the Parisian dialect of French was little used outside the Paris region in 1835, it spread throughout the country over the course of the century (Weber, 1976). This

linguistic nationalism was echoed in numerous Western countries and in the field of Deaf education. Educators of deaf people justified the suppression of sign language in evolutionary and nationalistic ways. They portrayed sign language as a relic of an earlier period in human evolution. They also pointed to the need to ensure that deaf people spoke the national language and could thus belong to the national community. What was seen as a linguistic gain at the beginning of the nineteenth century became a loss, not only for the individual, but also for the nation as a whole by the end of the nineteenth century.

Sign languages never disappeared during the century of its banishment from schools for deaf people. The application of the pure oral ideology was inconsistent across Western nations, and there were even wide variations within nations. Some schools continued to use sign language in both instruction and during extracurricular activities, especially in the United States. But the damage to sign languages was very real. Linguists have noted the phenomenon of “re-creolization” wherein sign languages are reinvented anew by newer generations of deaf children not being given exposure to deaf adults signing (Fischer, 1978; Gee and Goodhart, 1988). Across the Western world, generations of deaf people emerged from oral education, joined the signing deaf community, and advocated for the right to sign language for the next generation of deaf children. American Deaf leader George Veditz referred to this need for sign language, asserting in 1910 that deaf people faced “not a theory but a *condition*, for they are first, last, and all the time the people of the eye” (Veditz, 1912: 30).

(p. 251) Contemporary Issues in Signed Languages and Societies

Signing Communities and Cultures

The “rediscovery” of sign languages as legitimate human languages began in the 1960s with research on American Sign Language at Gallaudet University. This inspired research on sign languages in a number of countries around the world. This linguistic research was done in collaboration with deaf signers and was linked to an emerging deaf awareness and “deaf pride” movement in many Western communities. The re-emergence of sign languages spurred a renewed interest in deaf communities, and in 1980, Carol Padden published an article, “The Deaf Community and the Culture of Deaf People,” which introduced the term “deaf culture” to academic literature and spurred study on this community as a cultural and linguistic minority (Padden, 1980).

This period saw the naming of the languages used by deaf people via national identifiers. In this desire to identify sign languages as being linguistically compatible with spoken languages, a wide variety of lexical signs, including those used by different groups of deaf people in subnational regions, became subsumed under national identifiers, such as South African Sign Language (Branson and Miller, 2002: 245). While the histories of some Western deaf communities show a sign language developed and changed among users, found in successive cohorts at a school for deaf people, our picture of the emergence of sign languages has been considerably complicated beyond this unitary narrative in two ways. The misconception that national sign languages are standardized languages will be addressed in a later section of this chapter through an examination of regional, ethnic, and other variations in sign languages. For now, we turn to the myth that sign languages are developed and used only among deaf people.

The assertion of sign language as a natural language of deaf people can also be applied to hearing people. National sign languages are only a part of the rich variety of sign languages around the world. Scholars have uncovered what are known as “village sign languages,” sign languages used by both deaf and hearing members in “shared signing communities.” These communities have several conditions for their existence. First, they have relatively high rates of deaf people. While deaf people typically make up 0.1–0.2 percent of a population, these communities can see 2–3 percent of the community consisting of deaf people. Deaf people result from a gene for deafness that spreads among different families via endogamous marriage patterns, which result in deaf births over several generations. In other words, in these communities, deaf people are prevalent and visible in the community and within families (Kusters, 2010). What occurs in these “shared signing communities” is that most members of the community will use sign language. This situation is different from that of regional or national sign language communities in which users of sign language are typically deaf people and their immediate family members (Lane, Pillard, and French, 2000). What shared signing (p. 252) communities tell us is that sign languages are not only “natural” for deaf people, but that they are a “natural” part of human societies in which there is a need for a visual language (Fox, 2008; Sandler, Meir, Padden, and Aronoff, 2005).

The Paradox of Signed Languages in the Twenty-first Century: Dissemination and Decimation

At the same time that signed languages are enjoying an unprecedented popularity and visibility among hearing individuals, their use among deaf children is diminishing in the more technologically advanced countries. For example, in the United States beginning in the 1990s, and continuing into the twenty-first century, American Sign Language (ASL) has been increasingly taught in colleges and universities around the country and interest

in learning the language has grown exponentially. There has been an increase of over 430 percent in students enrolled in ASL classes between 1998 and 2002 (Welles, 2004) and another increase of 29 percent between 2002 and 2006 (Furman, Goldberg, and Lusin, 2007). In 2007 the Modern Language Association ranked ASL as the second most frequently taught language in community colleges (Furman et al., 2007) and the third most frequently taught in four-year colleges and universities as of 2013 (Goldberg, Looney, and Lusin, 2015). The spread of sign language in higher education is most marked in the United States, but sign language interpreter training programs have been set up in various countries around the world. If we include family members and sign language students, it is likely that a majority of those who know national sign languages are now hearing, not deaf. Media events circulating among transnational media flows have also increased public awareness of sign languages. For example, the use of an “interpreter” who actually did not know South African Sign Language at Nelson Mandela’s funeral in 2013 increased awareness of the profession of sign language interpreting.

At the same time that this widespread dissemination of American Sign Language is taking place, another movement, more targeted on the decimation of sign language use, is underway. Another media event that took place in 2002 pointed to an interesting twist to the story of sign language’s greater acceptance in larger society. The *Washington Post Magazine* ran a cover story of a deaf lesbian couple who chose a deaf man as the sperm donor for their second child. “A hearing baby would be a blessing,” the mother said, “but a deaf baby would be a special blessing” (Mundy, 2002). The child was born deaf and the reporting of this fact caused an international media storm, with the vast majority of articles claiming the couple had “manufactured” a deaf baby. Judging from the public storm that arose, and the comments section on many websites, there was little public support for bringing a deaf child into the world.

Contrary to media hype, the couple did not manufacture a deaf baby. They did choose a deaf donor in the hopes of having a deaf child, but there was no guarantee of this happening. However, genetic engineering is taking place that aims to map out the 400-plus genes that cause deafness, and the aim of this research is clear: it is to find ways to “cure” (p. 253) deafness (Arnos, 2002; Kochhar, 2007). Alongside these genetic technologies of normalization comes a resurgence in oralist ideology, abetted by new hearing rehabilitation technologies such as the cochlear implant. This re-emergence of eugenics and oralism under new regimes of biopower has led to concerns summarized in the title of an article by Trevor Johnston, “W(h)ither the Deaf Community?” (2004) Johnston traces the decline in the number of users of Australian Sign Language over the course of the twentieth century, attributing this to several factors. First, there was a decline in the number of deaf people being born in Australia from a relative high point

after the rubella boom of the 1960s. The second factor was the pairing of contemporary hearing rehabilitation technologies, such as cochlear implants, with an educational philosophy in which the use of sign language is discouraged by doctors and educators. Johnston further notes the impact of genetic screening tests for deafness and the potential for genetic therapy to have a “dramatic, if not definitive” impact on the future size of the deaf community. While there are obstacles to genetic therapy, genetic screening tests have emerged, including one for the most common variant of deafness, Connexin 26. The test has already been used in IVF procedures to screen out embryos with this gene. Johnston’s concerns are echoed in other Western countries as well, with increasing concern over the viability of deaf communities and their sign languages.

Linguistic Rights for Sign Language Users

Political advocacy organizations led by deaf people have mobilized to foster and promote their sign languages. An important part of this effort has been attempts to embed sign language into national constitutions or codify the existence of sign language through legislation. Uganda was the first country in the world to have its sign language acknowledged at the constitutional level, followed by Finland shortly thereafter (Lule and Wallin, 2010). Several dozen countries now have some recognition of sign language at national or subnational levels. Many of these offer symbolic recognition of sign language, such as the German Disability Equality Act of 2002, which states, “German Sign Language is recognized as a language in its own right” (Wheatley and Pabsch, 2010: 39). Reagan (2010) argues that symbolic recognition—the need to codify that a language is a language—shows a relatively weak acceptance of sign languages by society. This has been recognized in some countries, and efforts are being made to pass follow-up legislation that can translate this recognition into concrete legal rights, such as the right to public information in sign language. In some countries, such as Norway and Sweden, recognition of sign language occurs in the context of laws on education, with deaf children being guaranteed the right to sign language-based instruction. A few other countries, such as Hungary, have passed more comprehensive laws that also provide access to sign language interpreters and other forms of social access in sign language.

On the international level, the 2006 Convention on the Rights of Persons with Disabilities (CRPD) has more forcefully made the link between the use of sign language and the human right to language. One of the general principles that underlie the CRPD (p. 254) is “[r]espect for difference and acceptance of persons with disabilities as part of human diversity and humanity” (CRPD 3[d]). A key priority of the World Federation of the Deaf during the drafting of the CRPD was ensuring that the linguistic rights of deaf people were explicitly mentioned in the Convention (Jokinen and Kauppinen, 2013: 132–133).

Sign language and deaf culture are mentioned eight times in five Articles. For example, Article 21(e) states that governments that are a party to the CRPD must take steps “recognizing and promoting the use of sign languages” (CRPD, 2006). Within education, the CRPD states that it is important that deaf children are placed in environments which can maximize their educational and social potential, and as a part of this consideration governments are obligated to take steps “[f]acilitating the learning of sign language and the promotion of the linguistic identity of the deaf community” (CRPD 24(3)b). The CRPD is the first human rights treaty to explicitly recognize the use of sign language as a human right. Since it is relatively recent, outcomes related to it are still being assessed.

What the CRPD demonstrates is a renewed push for the recognition of sign language as a linguistic human right. The idea of linguistic human rights goes hand in hand with efforts to promote linguistic and cultural diversity (Skutnabb-Kangas, 2000). This recognition of sign language through human rights mechanisms sets up a clear distinction between human rights discourses about sign language as a linguistic human right and neo-oralist regimes of biopower that seek to suppress the use of these languages. Some go further. Trovato (2013) argues that the right to sign language should not be considered simply a right alongside that of other minority language rights. While speakers of one minority language can acquire a different spoken language from birth, the right to sign language is, for deaf children, about the right to receive language in the first place. Deaf children are not able to receive spoken language via the same natural processes as hearing children. Deaf babies who use sign language in a home environment meet language acquisition targets at the same time as hearing babies who are in spoken-language environments (Hauser and Kartheiser, 2014). Denial of a sign-language environment thus has the consequence of depriving a deaf child of full and natural access to language. Thus the right to sign language should be understood as a right pertaining to the integrity of the person, the right to “psychosocial integrity” (Trovato, 2013).

Research into sign languages supports the contention that sign languages provide not only an easily accessible and stable foundation for language acquisition for deaf children, but also confer cognitive benefits for all users. Peter Hauser and Geo Kartheiser note that the numerous “Advantages of Learning a Signed Language” (Hauser and Kartheiser, 2014) apply to both deaf and hearing people. People who use sign language focus on the face when holding conversations with one another. This focus lends itself to better facial-processing skills, which include enhanced recognition of facial features, and enhanced recognition of emotional states demonstrated through facial expressions. Another gain for deaf and hearing sign language users is enhanced spatial-processing skills. This includes better visual working memory and better mental image rotation skills. Studies have also shown that the use of sign language increases reading (p. 255) development in written

languages for both deaf and hearing children. Clearly, there is a net gain for people who learn and use a sign language.

The use of sign language has upended the fields of linguistics and other areas of human communication. The way deaf people navigate their lives as bilingual individuals in a sign language and the language of the surrounding community “challenges dominant twentieth-century understandings of bilingualism and bilingual education” (García and Cole, 2014: 99). Sign language also figures in another central area of human experience: the bond between adults and their newborn children. The American Pediatrics Association writes in its informational literature that “infant sign language really does deliver on its promise of improved communication” (as quoted in Snodden, 2014: 146). The benefits for children go beyond that of communication with adult caregivers. The use of language in another modality (signed and not spoken) makes them bimodal bilinguals, which gives them a richer linguistic repertoire than that of monolinguals (Snodden, 2014: 150).

Future Perspectives

Sign Language Publication

Preserving signed languages has been a perennial challenge, as signed languages have had no written form. Like oral languages, there has been no systematic way to preserve the language beyond the performative utterance. This was altered dramatically with the advent of film technology. It should be no surprise that one of the earliest recordings of film was the *Star Spangled Banner* by the American Mutoscope Company in 1903. Since this time, deaf individuals have used film and later video technology to document, preserve, and disseminate Deaf oratory. One of the best-known efforts has been the 1913 NAD films collected in *The Preservation of American Sign Language*, prominently featuring George Veditz advocating for the rights of deaf people to have access to signed languages. Fast forward a century, and we are now in a very different world in regard to the preservation and dissemination of signed languages.

An increasing number of e-books and apps are appearing, geared toward fully accessible bilingual texts, introducing toddlers to reading in both a signed and written language. In addition, digital video and the Internet have created a platform for the world’s first peer-reviewed academic and creative arts journal to feature signed and written languages together. The *Deaf Studies Digital Journal* (dsdj.gallaudet.edu) features academic articles

in ASL, noting that this is a new means of writing and publishing academic work in a “non-written” language. For centuries, any deaf individual wishing to publish his or her thoughts would have to do it in a second language without having auditory access to that language.

As a means of solving the difficulties of preserving and reproducing signed languages, many attempts have been made to develop written systems. One of the earliest was August Bebian’s written system, devised in 1817. This never caught on and was followed (p. 256) much later by systems of notation and signwriting. These, however, are not written systems in the fullest sense, but rather are systems of notation. Unlike these systems, a newly developed mode of writing “si5s”¹ is a very promising advancement in the challenges of writing in a signed language. This system, developed by Robert Augustus, takes the phonological properties of handshapes as its point of origin, creating a digibet as opposed to an alphabet. Figure 12.1 demonstrates how each handshape would be represented with a corresponding digibet.



Click to view larger

Figure 12.1 Image of the “digibet” in the ASL writing system, “si5s.” Each written character represents a particular handshape in American Sign Language.

Source: Image obtained from the creator of the Sign5 system, Robert Augustus.

As in sign language, these handshapes would be represented in their movement paths and locations. This system has enormous potential to introduce a new level of writing and reading in signed languages.

Sign Language Variation and Intersectionalities in Deaf Identities

Along with the endeavor to preserve sign languages as part of the larger picture of human linguistic diversity, there have been increased recognition and attention to sign language variation among social, cultural, and economic groups within deaf communities. Recent work has documented the wide differences in Southern Black ASL contra “White” ASL, a linguistic phenomenon that paralleled segregated schools in the Jim Crow South. As Carolyn McCaskill and her colleagues have documented, at times deaf schools next to one another signed radically different signs (McCaskill et al., 2011). Similarly, Joel Garcia has recently explored Chicana/o sign language used within the Barrio (Garcia, 2013). Concurrently, documentation of a distinct Hawaiian Sign Language has taken place as well (Lambrecht, Woodward, and Earth, 2013). While American Sign Language is the predominant signed language in North America, there are several distinct languages still used in varying degrees, including but not limited to Quebecois Sign Language, Inuit Sign

Language, Hawaiian Sign Language, Black ASL, Chicana/o ASL, and Mexican Sign Language, among other variations brought by immigrant Deaf populations.

On a global scale, this diversity magnifies greatly. The number of sign languages used in the world is unknown, with the 138 listed on Ethnologue.com likely being a vast underestimate and not reflective of the true linguistic diversity of sign languages. Many (p. 257) of these sign languages are facing similar threats to that experienced by other minority languages. With ASL becoming the lingua franca of the international deaf community, many users are gravitating toward using dominant signed languages as opposed to regional signs. One particularly large-scale instance of this is the drive to create a standardized pan-Arab Sign Language (ArSL), a movement being met with staunch resistance from local signed language communities in the Arab world (Al-Fityani and Padden, 2010). A dictionary has been established by the Council of Arab Ministers of Social Affairs (CAMSA) with the goal of integrating all nationalities of the Deaf Arab world. This mask of benevolence (Lane, 1992) obscures the reality that this project threatens the future of sign languages that are used by at least twenty-two distinct countries.

More recent developments include the advances made in the understanding of the nature of signed language and the emergence of the “pro-tactile movement” (Nuncio and Granda, 2014). Exploring the linguistic phenomenon of pro-tactile has led Terra Edwards to make distinctions between Tactile ASL (TASL) and Visual ASL (VASL) (www.protactile.org, October 3, 2014). The fundamental area of distinction occurs at the sublexical structure that results from the particular context of language use, what Edwards refers to as the “tactile habitus.” One instance of linguistic divergence within this context is the increased use of two-handed symmetrical signing that enables two tactile “listeners” to receive the same information as one is in touch with the right and the other, the left. Another phenomenon is the coproduction of linguistic structures, such as classifiers. The sites of articulation often occur using the body parts of the tactile addressee, such as the back, arms, head, chest, and thighs. Unlike VASL, TASL incorporates both bodies in the production of linguistic patterning. In this way, both bodies are materially involved in the coproduction of phonological components. Tactile ASL represents a significant advancement for the use of the full body as a means of communicating through alternative senses, bringing special attention to neuroplasticity and the brain’s ability to seek understanding from any channel available. The result is an emergent social movement in which traditionally marginalized groups such as the Deaf-Blind community take the creation of meaning-making, literally, into their own hands.

Conclusion

The existence of deaf people over 4,000 years of recorded human history has spurred the development of sign languages in a wide array of human societies across time. The cognitive benefits to knowing and using sign language are still being uncovered. What is clear is that phonocentric assertions of the primacy of spoken language have been proven wrong time and again. From the rediscovery of sign languages in the 1960s to twenty-first-century neuroscience research, the trend has been clear—sign languages are natural human languages that confer cognitive benefits to its users. What has been lacking heretofore has been the imagination to translate this into educational, social, and cultural programs that can ensure that these benefits are available to other members (p. 258) of society. We can envision a future when deaf and hearing children will compete to enter elite sign language schools, along the same lines of those who compete to attend elite math or music academies. When the potentiality of sign languages are open to the entire population, we will then be able to say that sign languages have assumed equal status alongside spoken languages.

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Notes:

(1.) The unconventional name, "si5s" is derived from the handshapes involved in the sign which roughly translated means, *to use sign language fluently*. The first handshape of the sign is the closed fist of "s" followed by the opening of the fist with the extended pinky finger in the "I" handshape, leading to the the fully opened "5" handshape, then concluding with a return to the closed fist, "s."

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