

Deaf and Dumb in Ancient Greece¹

M. Lynn Rose

Just as the nature of traditional scholarship rendered women in the ancient world inconsequential and invisible—save a few, remarkable ladies—people with disabilities have been all but invisible, save a handful of blind prophets. Beyond simply cataloguing disabled people, one must ask what constituted “ability” and “disability” for any given culture. At the heart of disability studies is a recognition that disability is a cultural construction; that is, that “disability” has no inherent meaning.² It is not appropriate to investigate the phenomenon of disability in ancient societies from the perspective of a medical model,³ whereby people are deemed inherently able-bodied or disabled according to medical definition and categorization. Rather, if disability is viewed as “relational and not inherent in the individual,”⁴ the risk is much lower of contaminating the ancient evidence with modern cultural assumptions. The Greeks perceived deafness as an intellectual impairment because of the difficulty in verbal communication that accompanies deafness. The obsolete expression “deaf and dumb” is an apt description of the way in which a deaf person was perceived in ancient Greece.

The surviving ancient Greek material that mentions or depicts deafness is meager. While it does not allow a reconstruction of everyday life for deaf and hearing-impaired people, it does allow an investigation into the environment in which deaf people lived. This discussion of deafness in the ancient Greek world begins with a survey of the etiology of deafness, which suggests that the causes of deafness in the modern world existed in the ancient world. An examination of the term “deaf” (κωφός) reveals both that the term was flexible in its range of meanings, and that deafness was inextricably intertwined in Greek thought with an impairment of verbal communication. Next, I discuss the Greek medical understanding of deafness, as well as medical and nonmedical treatments for deafness in terms of how they illuminate Greek attitudes toward deaf people. Finally, while attitudinal subtleties are lost, we can determine broad cultural assumptions that shaped the realities of hearing-impaired people.

The only significant instance of a deaf person’s appearance in the surviving Greek literature is Herodotus’ tale (1.34; 1.38; 1.85) of Croesus’ anonymous deaf son.⁵ Herodotus tells us that Croesus, the king of Lydia and richest man in the world, had two sons. Atys, the elder, was brave and skilled, but died as a youth. The other son, whose name we never learn, was worthless to Croesus because he was deaf and mute. When Croesus has failed at his plans to conquer the Persians and is about to die at the hands of his captors, his son regains his voice at the last minute in order to save his father from the pyre.⁶ One deaf boy is hardly representative of the portion of the population that was hearing-impaired, as the following etiological survey will show.

In the United States today, there are about twenty-two million hearing-impaired people; of these, two million are profoundly deaf (unable to hear anything) or severely deaf (unable to hear much).⁷ Hearing impairment results from three major factors that are not necessarily exclusive: environmental, hereditary, and old age.

Environmental causes include noise-induced, accidental, toxic, and viral. Noise-induced deafness is primarily a phenomenon of the modern industrial world, though stonemasons, for example, may have been subject to hearing-loss in the ancient world.⁸ Permanent deafness resulting from toxicity is also a phenomenon of the modern world.⁹ Deafness from accident, such as a blow to the ear, must

have resulted from time to time.¹⁰ Viruses, too, were very much part of the ancient world. Of the six main viruses that can cause deafness today—chickenpox, common cold viruses, influenza, measles, mumps, and poliomyelitis—there is evidence for five in ancient Greece.¹¹ There is also evidence for the presence of bacterial meningitis, whose classic complication is hearing loss.¹² In modern, developed countries, preventative medicine reduces the incidence and severity of these viruses, but in the ancient world, as in third-world countries today, these viruses must have taken their toll.¹³

There is no reason to rule out hereditary deafness in the ancient world, and there is some conjectural evidence for the results of in-breeding, although not specifically for deafness.¹⁴ Plutarch (*Moralia* 616 b) and Strabo (*Geography* 10.5.9), for example, observe the prevalence of premature baldness on Myconos. It is not surprising that island communities would have their own genetic peculiarities. Genetic phenomena such as the present-day prevalence of female muteness on Amorgos and Donussa would have been common in ancient Greece.¹⁵ In addition to inbreeding, other hereditary factors would have produced deafness. Some families simply have a genetic background that favors deafness.¹⁶ Furthermore, a chromosomal aberration can produce deafness, with or without a hereditary factor.¹⁷

Hearing loss is expected in elderly people in the modern world. Today, almost thirty percent of people sixty-five to seventy-four years old and almost fifty percent of those seventy to seventy-nine years old have some hearing loss; in other words, one third of those over sixty-five years old have clinically abnormal hearing.¹⁸ Fewer people, of course, attained old age in the ancient world.¹⁹ There is no reason to suppose that hearing loss would be less a part of old age in the ancient world than it is today;²⁰ if the incidence was similar, one Greek in three, sixty-five years or older, would have suffered some degree of hearing loss.

Finally, in addition to the three factors above, any condition that manifested in muteness would not have been differentiated from deafness.²¹ Muteness can result from faulty information processing brought on by forms of autism, learning disabilities, and mental illness.²²

Although Herodotus' fanciful tale of two sons and a kingdom does not represent the proportion of deaf people in the ancient world, it is useful in that it coincidentally illustrates two important ancient Greek assumptions about deaf people. First, and crucial to our understanding of the Greek concept of deafness: deafness went hand-in-hand with muteness. The Lydian boy's deafness was the sole reason for his worthlessness not because he could not hear, but because he could not speak.²³ In this case, the word "deaf" (κωφός) encompassed both conditions; a deaf person was voiceless by nature, mute in the sense that the sea or the earth is mute, "stone deaf."²⁴

The second and related assumption seen in Herodotus' tale is that muteness indicated diminished worth. Croesus' deaf son was incapacitated (διέφθαρτο)²⁵ by his condition (Herodotus, 1.34), and it could not be clearer that the sole reason for the boy's uselessness was his deaf-muteness alone; in all other respects, he was acceptable (τᾷμὲν ἄλλα ἐπιεικῆς, ἄφωος δὲ) (Herodotus, 1.85).²⁶ Croesus literally discounts his deaf son (οὐ κεῖναι μοι λογίζομαι) (Herodotus, 1.38).²⁷ A deaf male child was perhaps as "worthless" as a girl. Deafness certainly indicated worthlessness in the political sphere; this was so taken for granted that Herodotus uses it as a literary device: when Croesus' son finds his voice, Herodotus has created the irony that Croesus gained an heir when he lost his kingship.²⁸

A survey of the use of the word "deaf" (κωφός) shows that the term had a much wider range of meaning than the English term. Deafness and speechlessness were intertwined from the earliest appearance of the word "deaf" (κωφός), and the term does not always refer to a person's speech or hearing. In the *Iliad* (11.390), the term describes the bluntness of a weapon; the silence of an unbroken wave (14.16); and the muteness of the earth (24.54). This basic use of the word continues through the Archaic poets; for example, Alcman refers to a mute (κωφόν) wave.²⁹

Even when the term describes deafness as a human characteristic, it implies a range of conditions that include an overall inability to communicate verbally. The first surviving use of "deaf" (κωφός) that probably describes human beings appears in Aeschylus (*Libation Bearers* 881), though "My cry is to the deaf" (κωφοῖς) could refer to anything that does not, or cannot, hear. There is a similar use

(*Seven Against Thebes* 202) when Eteocles asks the chorus of Theban women if he speaks to the deaf (κωφῆ).

The term unmistakably refers to a specific human sensory condition in the Hippocratic Corpus, and it appears abundantly there.³⁰ It is in the Hippocratic Corpus, too, that the term first refers to a class of people.³¹ There are two references to deaf people as a distinct group,³² although most of the references are to deafness as a temporary condition, a symptom of another condition, or a diagnostic tool. Hippocratic writers rarely mention permanent deafness, as opposed to the temporary conditions such as “night deafness” that frequently accompanies other ailments.³³ Deafness is mentioned in passing as a possible complication for the mother during childbirth, and muteness as a potential problem in the case of female hysteria.³⁴ The author of *Internal Affections* (18.24) warns that deafness may result from a botched cauterization of one of the main veins in the body.³⁵ In short, throughout the Hippocratic Corpus, deafness is seen more as a valuable diagnostic tool than as a physical infirmity in itself.³⁶

There is not much surviving mention of medical treatment for deafness in the Classical period. Hippocratic theory becomes Hellenistic practice in the writings of Celsus, who lived about six centuries after the earliest Hippocratic writers. In Celsus’ writings, we see specific medical treatments for hearing impairment that are based on Hippocratic theory.³⁷ For example, there is a connection throughout the Hippocratic Corpus between bilious bowels and deafness.³⁸ Celsus (2.8.19) takes this connection another step in his recommendation to balance the humors by producing a bilious stool. Other remedies for ear ailments and dull hearing include shaving the head, if the head is considered too heavy (6.7.7 b), and flushing the ear with various juices (6.7.8 a).³⁹ Some of the more drastic treatments suggest to the modern reader that hearing impairments might have been aggravated or even caused by medical treatment, such as when a probe with turpentine-soaked wool is inserted into the ear canal and twisted around (6.7.9 a).⁴⁰

While the surviving medical literature of the Classical period does not include treatments for deafness, we do find reports of cures for deafness in the nonmedical literature. For example, psychological trauma instantly restored Croesus’ son’s capacity to speak (Herodotus, 1.85),⁴¹ and a fourth century B. C. inscription at Epidaurus testifies to a spontaneous cure of muteness (ᾠφωνος).⁴²

Deafness is not a common ailment among the surviving testimonies of Asclepiadic cures, but the paucity of written remains does not necessarily indicate that the Greeks did not seek cures for it. Because it is an abstract characteristic, deafness is not easily depicted, and, like headache, is difficult to interpret in representation.⁴³ Clay representations of human ears were prominent among the offerings of body parts at the healing temples, and many survive. They may or may not represent thank offerings or pleas for cures of deafness.⁴⁴ The ear was, obviously, connected with hearing and thus communication and—in ancient thought—intelligence. By extension, the ear was for Aristotle (*History of Animals* 1.11.492 a) also indicative of personality.⁴⁵ Similarly, Athenaeus (12.516 b) tells us that when Midas became deaf (κεκωφημένον) through his stupidity, he received the ears of an ass to match his “dumbness.”

Because deafness and muteness were intertwined, models of mouths or complete heads are just as likely as ears to have represented deafness.⁴⁶ But the ear was, certainly, the most obvious channel of hearing, listening, and understanding, and this is why it was important to have the ear of the god from whom one sought a favor. If one’s prayer was heard, it was granted.⁴⁷ Having the god’s ear was taken literally: some temples included depictions of gods’ ears into which the suppliant could speak.⁴⁸

Against this background, it is possible to reconstruct generally some of the realities of deaf people’s lives in the ancient Greek world. I will discuss people with mild hearing impairments, followed by those people who were more severely deaf but who still spoke, and, finally, people who were prelingually deaf.

People with partial hearing loss outnumber people with severe or profound deafness in the modern world, and there is no reason to think that the situation would be different in the ancient world. Partial loss of hearing, because of the difficulty in verbal communication it brought on, implied partial loss of

wit. Perhaps Aristophanes (*Knights* 43) used a hearing impairment as a comic vehicle: Demosthenes describes his master as a bit hard of hearing (ὕπόκωφον), quick-tempered, and country-minded.⁴⁹ As in the modern world, old people were expected to become slightly deaf (ὕπόκωφος). Slight deafness was the “old man’s forfeit,” along with a decrease in sight, wit, and memory (Xenophon, *Memorabilia* 4.7.8).⁵⁰ Old men and deafness were so intertwined that it is difficult to separate deafness from old age as the butt of the joke in Attic comedy.⁵¹ Aristophanes’ Acharnian men (*Acharnians* 681) contrast the city’s brash and forensically skilled youth with their own deafness. The deafness here is literal but it reveals layers of symbolism in the conflict of generations. A diminished ability to communicate by speech accompanies hearing loss; the assumption of faulty thought accompanies this diminished ability to communicate easily; the picture of dull-witted old age results.⁵²

What this picture of diminished intellect meant in the everyday life of someone with a mild hearing impairment is impossible to determine in any detail. Hard-of-hearing old men, though portrayed comically, are never portrayed—at least in the surviving material—as “worthless.” In fact, an important measure of a Greek man’s worth was his participation in the army or, at Athens, in the navy. Old men were not excluded from the hoplite forces. All citizens, regardless of age or physical fitness, were included in the military.⁵³ Of these old men, a significant proportion—upwards of thirty percent, we have noted—must have been hearing-impaired. This could have worked to their advantage in the noisy confusion of Greek combat, where panic could quickly scatter the phalanx.⁵⁴

As scant as the information is for deaf and hearing-impaired men, there is even less information about women.⁵⁵ An epigram from the first century A. D. describes a very deaf old woman (δύσκωφον γράϊαν) who, when asked to bring cheeses (τυφός) brings grains of wheat (πῦρός) instead.⁵⁶ While the epigram, on its own, tells us little about deaf women, it does further illustrate the perceived connection between deafness and impaired communication.⁵⁷

The degree of one’s hearing loss never appears to be an important issue; what mattered to the Greeks was one’s ability to speak.⁵⁸ Even profoundly deaf people who learn spoken language before losing their hearing do not necessarily lose their capacity to speak. When Pseudo-Aristotle (*Problems* 14.962 b) asks why deaf people talk through their noses, he refers to people who remember how to speak, but who do not remember how to regulate their voices.⁵⁹ Being able to speak intelligibly, even if imperfectly, separated the “dumb” from those who merely had variations of speech, though the philosophical line was thin.⁶⁰ Pseudo-Aristotle (*Problems* 10.40.895 a) compares speech disorders with muteness: he asks why man is the only animal that stammers, and asks in answer if it is because only man suffers from muteness (ἔνεον) and stammering is a form of muteness. The ancient literature is full of references to people who lisped, stuttered, stammered, or mumbled. Their speech was ridiculed (Plutarch, *Demosthenes* 4.4) or admired (Plutarch, *Alcibiades* 1.4), but there is nothing to indicate the degree of derision seen in the story of Croesus’ son.⁶¹

Some deaf people did not learn spoken language. About one in 1000 people in the world today are congenitally deaf⁶² and there is no reason to believe that the proportion was much different in the ancient world.⁶³ In the absence of modern educational methods, one must hear spoken language in order to learn to speak it.⁶⁴ People in the ancient world who became deaf *in utero* or before learning to speak were necessarily mute.⁶⁵

Of course, prelingually deaf people who could not talk communicated in other ways;⁶⁶ speech is only part of the method by which even people with full hearing transmit information.⁶⁷ Deaf children who are not taught a signed language naturally learn a system of gestures.⁶⁸ An example from the modern world demonstrates how this might have played out in daily life in ancient Greece. Harlan Lane observed families in Burundi, Africa, where many deaf people are without the means to learn true signed language.⁶⁹ A mother describes gestural communication with her profoundly deaf daughter:

She uses little gestures with me that I understand, that her sisters and brothers understand. . . . We don’t have conversations, because that’s impossible with a deaf person, but when I want her to go fetch water, I can take the jug that she always uses, show it to her, and point my finger in the direction of the well, and she knows that I need some water.⁷⁰

While all language involves gesture,⁷¹ a system of gestures does not necessarily comprise a language.⁷² Conditions for a true, signed language would have been present only in areas in which deaf people interacted.⁷³ Furthermore, any such area would have to include adults who could teach sign language, and an ongoing need to use the language.⁷⁴ Highly populated urban areas such as Athens and, especially, island communities that had a high incidence of deafness due to genetics may have included generations of deaf people who used sign language.⁷⁵

There is no proof of the presence, or the absence, of ancient Greek sign language.⁷⁶ Someone signing language looks like someone gesturing.⁷⁷ The handful of references to the gestures used by deaf people⁷⁸ is inconclusive. A Greek would not have differentiated between gestured communication and true sign language, or cared much, probably, that there was a difference.

People who had learned writing before becoming deaf would have been able to use the written word to communicate. Such people would not have been common. Writing was not available to the average person in Greece,⁷⁹ and the vast population of the ancient world was not merely illiterate, but rather, non-literate.⁸⁰ In the case of deaf children, the written word as a means of communication would have been limited to the rare family that included both parents who had mastered fluency of writing and reading⁸¹ and deaf children.⁸² Written characters were not the only media by which people who could not talk could transmit information. In the folk tale of the sisters Procne and Philomela, in which Procne's husband, Tereus, cuts out Philomela's tongue in order to prevent her from telling anyone that he raped her, Philomela weaves scenes into her tapestry that depict her story.⁸³

In any case, people who did not speak Greek and who, for whatever reason, had to rely on gestured communication, were not admired.⁸⁴ Furthermore, the inability to speak went beyond a simple barrier in communication. Aristotle (*History of Animals* 4.9.536 b) observed that all people born deaf (κωφοί) are also mute (ἔννεοι).⁸⁵ By mute, Aristotle refers to an inability to express language, not an inability to form sounds.⁸⁶ Aristotle (*History of Animals* 4.9.536 b) observes that animals make noise; human beings speak, and though people who are born deaf have a voice, they cannot talk. For the Greeks, as for people of all pre-Enlightenment cultures, speech, language, and reason were intertwined.⁸⁷ Because the conditions (inability to hear) and symptoms (inability to speak) of deafness were indistinct, Herodotus could use "deaf" (κωφός) and "speechless" (ἄφωνος; ἔννεος) interchangeably.⁸⁸ As Herodotus' audience took for granted, deafness was synonymous with "dumbness" in its full range of meanings. Language was the hallmark of human achievement, so muteness went beyond a physical condition. An inability to speak went hand-in-hand with an inability to reason, hand-in-hand with stupidity.⁸⁹ Plato (*Theaetetus* 206 d) has Socrates say that anyone can show what he thinks about anything, unless he is speechless or deaf from birth (ἐνεδος ἢ κωφός ἀπ' ἀρχῆς). The proverb recorded by Plutarch (*Moralia* 512 d) that only the oracle can understand the deaf (κωφοῦ) further highlights the difficulty faced by people unable to communicate verbally.

That muteness was seen as a grave affliction can be traced with three literary examples from the seventh century through the first century B. C. Hesiod (*Theogony* 793–98) describes the punishment for perfidious gods as a sort of temporary death, in which the god must lie for a year without breath, without voice (ἄναυδος). In the chilling final scene of the *Alcestis*, the woman whom Heracles offers to Admetus is not dead yet not quite alive, Alcestis yet not quite Alcestis.⁹⁰ The emblem of this liminal state is her muteness (ἄναυδος) (Euripides, *Alcestis* 1143). Finally, Diodorus (4.24.4–5), in his account of Heracles' travels, reports that the punishment for the young men who failed to carry out sacred rites in honor of Iolaüs was that they were struck mute (ἄφρωνος), and thus, he writes, resemble dead men (τετελευτηκόσιν).

Deafness was indeed a curse, sometimes literally. The word "deaf" (κωφός) appears in the surviving Greek inscriptions almost exclusively as a curse, and a powerful one. Deprivation of hearing, because it meant a deprivation of verbal communication and perceived intelligence, meant separation from the political and intellectual arena. A curse of deafness was appropriate not only for one's political opponents, whose speech could harm, but also for anyone who had too much power.⁹¹ Aristophanes (*Clouds* 1320) provides a comedic example of this curse when the chorus teases Strepsiades, saying that he will wish his son, soon to be diabolically forensically skilled, were mute (ἄφωνον).⁹²

It is crucial to consider that concerns surrounding speech and intelligence were different for the literate elite than they were for the bulk of the population, but that it is the literate elite on whom we must rely for almost all our information about deafness. The elite valued the very skills—such as fluency in communication—that they thought deaf people lacked. On one hand, Herodotus' Greek audience knew that Croesus' son could never become king. On the other hand, the deaf child of a farmer or shepherd, even if considered utterly stupid and incapable of political activity, could certainly carry out any number of tasks. Aristotle and his circle had the luxury to despise lack of eloquence, but the average peasant would be far less concerned with his child's forensic skills.

In summary, we are confined to learning about deafness in the ancient Greek world through the filter of the literary elite. In other words, the closest we can observe everyday life for deaf people is through a partial reconstruction of attitudes toward deaf people. Deafness was perceived not as a physical handicap but as an impairment of reasoning and basic intelligence. Life in Greece for anyone who did not speak must have been frustrating, at best. While the consequences of deafness are synonymous with exile or death in the literature, it is important to remember that more people in the Greek world were interested in farming than rhetoric. While ineligibility in political and intellectual arenas may have been a hardship, the hardship is magnified out of proportion in the surviving material. Furthermore, we must be cautious about our own filter of interpretation. We should not leap to conclusions about constructions of intellectual ability and disability in the ancient world any faster than about physical ability and disability.

Notes

1. This essay is based on a chapter of my Ph. D. thesis, "Physical Disability in the Ancient Greek World." The essay also developed from my presentation of "Croesus' Other Son: Ancient Greek Attitudes to Deafness" at the meeting of the Classical Association of the Midwest and South, Omaha, 22 April 1995. Many people contributed to this essay. Alan Boegehold and Robert Garland kindly provided me with their work before publication. Roberta Cullen, Lorna Sopçak, and Ross Willits have read and commented on many drafts, as have Lois Bragg and Anthony Hogan. Three anonymous readers associated with Gary Kiger and the Society for Disability Studies offered much helpful criticism and advice. Lenard Davis, too, has been generous and gracious. I appreciate Jenny Singleton's correspondence and suggestions. I also thank Thomas Kelly, my thesis advisor.
2. Gary Kiger et al., "Introduction," *Disability Studies: Definitions and Diversity*, ed. G. Kiger et al. (Salem, Oregon, 1994), 1.
3. Beth Haller ("Rethinking Models of Media Representation of Disability," *Disability Studies Quarterly* 15 [1995]: 29–30) includes a succinct summary of various categories by which the media have represented disability, including the medical model.
4. Kiger et al., "Introduction," *Disability Studies*, 1.
5. Pliny (*Natural History* 35.7.21) relates the story of Quintus Pedius, "born dumb" (*natura mutus esset*), who, on the advice of the orator Messala and with the approval of Augustus, had lessons in painting and was making good progress when he died. Danielle Gourevitch, "Un enfant muet de naissance s'exprime par le dessin: à propos d'un cas rapporté par Plinie l'Ancien," *L'Evolution psychiatrique* 56 [1991]: 889–93 discusses this short passage fully, and compares the Latin *mutus* with the various Greek terms for muteness.
6. Herodotus' tale (1.34; 1.38; 1.85), and see Warren Dawson, "Herodotus as Medical Writer," *Bulletin of the Institute of Classical Studies* 33 (1986): 87–96.
7. Nanci Scheetz, *Orientation to Deafness* (Boston, 1993), 203. Aram Gloring and Jean Roberts ("Hearing Levels of Adults by Age and Sex," *Vital and Health Statistics* 11th ser., 11 [1965]: 16) define a person with a severe hearing impairment as anyone who has trouble understanding loud or even amplified speech.
8. Karl Kryter (*The Effects of Noise on Man* [Orlando, 1985], 220) states that people working around noise have always suffered deafness. Still, the noise to which he refers throughout his study is industrial noise.
9. Jiri Prazma ("Otototoxicity of Aminoglycoside Antibiotics," *Pharmacology of Hearing*, ed. R. D. Brown and E. A. Daigneault [New York, 1981], 153–95) discusses cochlear destruction caused by the AmAn drugs, the best-known of which include the streptomycin antibiotics. In antiquity, wormseed, chenopodium oil, and cinchona alkaloids could cause temporary deafness. Calvin Wells (*Bones, Bodies and Disease* [London, 1964], 111–13) discusses paleotoxicology in terms of the difficulty of identification; for example, mineral poisons remain in the tissues and are easily identified, but may have come from the soil, after death.

10. Guido Majno (*The Healing Hand: Man and Wound in the Ancient World* [Cambridge, Mass., 1975], 171–75) discusses various injuries that resulted from boxing in fourth- and third-century Greece, including the “cauliflower ear.” He points out (174) that Aristophanes invented the term “ear-breaker” (κάταξις) for a boxer. A type of accident in which the ears themselves are injured is seen in an account by Plutarch (*Moralia* 470 e) of men whose noses and ears were mutilated (περικοπτομένους) as they were digging through Mt. Athos. While this tale is fantastic, designed to show an example of Xerxes’ hybris in cutting through Mt. Athos, the detail of injured ears is believable.
11. Grmek (DAGW, 334–37) sees evidence for chickenpox, the common cold virus, and mumps. He sees evidence for the possibility of the influenza virus and poliomyelitis. He does not believe that the measles virus existed. Srboľjub Živanović (*Ancient Diseases: The Elements of Paleopathology* [New York, 1982], 86, 108) finds possible skeletal evidence for poliomyelitis.
12. Grmek (DAGW, 122, 123, 131) discusses meningitis in ancient Greece.
13. Of course, these viruses must have taken their toll not only by causing deafness, but also by killing the victim. Mustafa Abdalla Salih (“Childhood Acute Bacterial Meningitis in the Sudan: An Epidemiological, Clinical and Laboratory Study,” *Scandinavian Journal of Infectious Diseases* suppl. 66 [1990]) studied meningitis in a developing area (the Sudan), and reports (76) that both the mortality and the frequency of long-term complications, including hearing loss, was much higher than in developed countries. Among survivors in the Sudan, twenty-two percent had hearing loss (7). Antibiotics (20, 26) and vaccination (27) are the main factors responsible for diminishing the impact of the disease in developed countries.
14. Ancient writers were aware of hereditary physical disability, even if they did not recognize the underlying genetics. The Hippocratic author of *The Sacred Disease* (3) observes phlegmatic children from phlegmatic parents, bilious children from bilious parents, and so on. Aristotle (*History of Animals* 9(7).585 b) cites lame children born of lame parents; blind children produced by blind parents. Because he does not understand the genetics, he also cites (*Generation of Animals* 1.17.721 b) acquired characteristics, such as scars and brands.
15. Robert Sallares, *The Ecology of the Ancient Greek World* (Ithaca, 1991), 235. Sallares (460) mentions other ancient ecological peculiarities of Myconos. Nora Groce (*Everyone Here Spoke Sign Language: Hereditary Deafness on Martha’s Vineyard* [Cambridge, Mass., 1985]) gives a modern account of island communities with a high proportion of people who are deaf—twenty-five percent of the inhabitants in the mid-nineteenth century—as a result of inbreeding. The discussion (40–43) on inbreeding is especially useful.
16. Ha-Sheng Li, “Genetic Influences on Susceptibility of the Auditory System to Aging and Environmental Factors,” *Scandinavian Audiology* 21 suppl. 36 (1992): 7.
17. M. Michael Cohen and Robert J. Gorlin (“Epidemiology, Etiology, and Genetic Patterns,” *Hereditary Hearing Loss and Its Syndromes*, ed. R. Gorlin et al. [New York, 1995], 9–21) discuss the varieties of genetic deafness in the modern world, listing hereditary factors, acquired factors, and unknown factors as about equal as causes of genetic hearing loss (9). These subcategories of genetic deafness in the ancient world are impossible to determine.
18. Gerhard Salomon, “Hearing Problems and the Elderly,” *Danish Medical Bulletin* 33 suppl. 3 (1986): 4.
19. Grmek (DAGW, 103) gives 41.7 years as the average age of adults at the moment of death in Greece during Classical times. Here he follows J. Lawrence Angel, “The Length of Life in Ancient Greece,” *Journal of Gerontology* 2 (1947): 20. Angel points out (23) that the data are scanty, especially for very old people. Mogens Herman Hansen (*Demography and Democracy* [Herning, Denmark, 1986], 12) calculates that in the fourth century, of all males in Attica eighteen to eighty years and older, 11.9 percent were fifty to sixty-nine years old; 8.7 percent were sixty to eighty years and older. M. I. Finley (“The Elderly in Classical Antiquity,” *Greece and Rome* 28 [1981]: 157) contrasts these figures with the projection that by the end of the twentieth century, people sixty years of age and older will comprise twenty percent of the population in Great Britain.
20. The cumulative effect of noise pollution might be responsible for some hearing loss in the elderly that would not have been present in the ancient world. Ha-Sheng Li (“Genetic Influences on Susceptibility of the Auditory System to Aging and Environmental Factors,” *Scandinavian Audiology* 21 suppl. 36 [1992]: 8) states that the etiology of deafness through aging is not well understood. Sava Soucek and Leslie Michaels (*Hearing loss in the Elderly: Audiometric, Electrophysiological and Histopathological Aspects* [London, 1990]) conclude (103) that hearing loss is innate to old age.
21. Even in the twentieth century this is the case. Donna Williams (*Somebody Somewhere: Breaking Free From the World of Autism* [New York, 1994], 50) explains, in her account of her own autism, that she was “meaning-deaf,” but, like many autistic children, was thought to be sound-deaf.
22. An example of muteness as a result of autism can be seen in Josh Greenfeld’s account of his son, *A Child Called Noah* (New York, 1972).
23. Pötscher (“Der stumme Sohn der Kroisos,” *Zeitschrift für klinische Psychologie und Psychotherapie* 20 [1974]: 368) argues that Croesus’ son was not deaf at all, pointing out that, in order to finally speak, he must have been able to hear all along. He suggests that Herodotus used “deaf” (κωφός) as an interchangeable word for “mute.”
24. “Stone deaf” is not an exclusively modern concept, though in the ancient world it was perhaps more literal. A girl’s first or second century A. D. grave stele from Smyrna (*Inscriften von Smyrna* I.549, ed. G. Petzl [Bonn, 1982]) refers to the deaf stones (Κωφαί . . . πέτραι) of the tomb.

25. It is interesting that Herodotus (1.166 and elsewhere) uses this same term for ships that are damaged so as to be utterly useless.
26. Xenophon (*Cyropaedia* 7.2.20) repeats the assessment.
27. The parallels between discounting a “defective” child and discounting a female child are provocative, and call to mind families who named only male children in census reports, as mentioned by Sarah Pomeroy (“Infanticide in Hellenistic Greece,” *Images of Women in Antiquity*, ed. A. Cameron and A. Kuhrt [Detroit, 1993], 208).
28. J. A. S. Evans, *Herodotus: Explorer of the Past* (Princeton, 1991), 49.
29. Frag. 14 c PMG.
30. There are sixty-nine instances of the forms of κωφός in the Hippocratic Corpus.
31. Lane (*WMH*, 93) points out that about ten centuries later, deaf people appeared as a legal class for the first time, in the Code of Justinian, 3.20.7; 6.22.10.
32. The class of people who are severely deaf (δύσκωφοι) is mentioned in *Coan Foreknowledge* (193.1) in connection with symptoms they might have; specifically, if their hands tremble, their tongue is paralyzed, and they have torpor, it is a bad sign. Deaf people who are deaf from birth (οἰκωφοί οἱ ἐκ γένεῃς) are presented to illustrate nonfunctional vocal chords in *Fleshes* (18.8). Danielle Gourevitch (“La-phonie hippocratique,” *Formes de pensée dans la Collection hippocratique*, ed. F. Lasserre and P. Mudry [Geneva, 1983], 302) points out that muteness (ἄφωος) appears in the Hippocratic Corpus as a symptom rather than a condition in itself, and that while the Hippocratics recognized that there were different degrees and typed of muteness, the aim of the practitioners was objective reporting, not analysis. She further points out (303–05), that the meaning of the two common terms for muteness (ἄφωνος and ἄναυοῖς) shifts from author to author and even within the Hippocratic Corpus.
33. This sort of passing deafness is seen especially frequently throughout *Epidemics*; e.g., 1.3.13(3).5, 15, 16; 1.3.13(5).26; 1.3.13(10).4, and so on. In the writings of Galen, there are twenty-five instances of the term “deaf” (κωφός); four in Pseudo-Galen. Of these, almost all are referrals to the temporary deafness of the Hippocratic Corpus (e.g., 17a.528.5; 17a.530.2; 17a.530.7; 17a.534.4; 17a.557.16; 17a.560.10; 17a.585.7; 17a.587.2).
34. Deafness as a result of a misdirected lochial purge: Hippocrates, *On the Affections of Women* 41.30. Muteness as an accompanying symptom of hysteria: *On the Nature of Women* 23.1; *On the Affections of Women* 127.1; 201.13; 203.18. Danielle Gourevitch (*Le Mal d'être femme: la femme et la médecine dans la Rome antique* [Paris, 1984], 113–28) provides a good discussion of female hysteria in general. She also explains (27) that women's bodies were usually traumatically out of balance in the view of medical science, which had as its underpinnings the system of humors; that is, blood, phlegm, black bile, and yellow bile all balanced in the right proportions given the season and topography.
35. A main vein, in Hippocratic thought (*Internal Affections* 18.23–25) travels all the way from the head to the feet. If it is severed in the area of the head, deafness or blindness results. Lameness results if it is severed in the leg. Muteness, not deafness, is at least in one instance a tangible medical phenomenon: a short passage (*Fleshes* 18.8) on the physiology of speaking and muteness explains that air produces sound as it intersects the throat, moderated by the tongue.
36. Naturally, the term continues as an effective and not uncommon metaphor; for example, Plato (*Republic* 3.18.411 d) warns that the soul of a man who does not partake in the Muse will become weak, deaf (κωφός), and blind.
37. Huldrych Koelbing (*Arzt und Patient in der Antiken Welt* [Munich, 1977], 158) points out that although Celsus worked during the Roman, not Hellenistic, period, his work is more a compilation of Hellenistic scientific writing than a reflection of his own practice.
38. When bowels are bilious, deafness ensues, *Aphorisms* 4.28.1; deafness accompanying a bowel movement full of black matter is fatal after a hemorrhage, *Prorrhetic* 1.129; similar examples: *Prorrhetic* 1.127; *Coan Foreknowledge* 324; 623.
39. In case Celsus' treatment seems quaint, I should note Lane, *WMH*, the first part of which is written as an autobiography of Laurent Clerc, a nineteenth-century deaf man. Clerc submitted to visits to a doctor who injected mysterious liquids into his ears in an attempt to cure his deafness (5).
40. Anthony Hogan, letter to the author, 14 July 1994 points out that the treatment is still successfully used today, as a solution of turpentine is helpful in loosening an impaction of cerumen (earwax), and that the danger lies, then and now, in inserting the probe too far, and perforating the ear drum. I thank Mr. Hogan for his help, his generosity in reading several drafts of this chapter, and for his correspondence. A study undertaken by the Health Services Directorate of Canada (*Acquired Hearing Impairment in the Adult* [Ottawa, 1988], 14) confirms that partial deafness can indeed result from an impaction of earwax.
41. Robert Garland (*The Eye of the Beholder* [Ithaca, 1995], 96–97) sees Croesus' son's spontaneous recovery as a symbol that the son was, after all, worthwhile, and that Croesus' moral blindness toward his son is parallel with his senseless invasion of Persia. I thank Dr. Garland for his generosity in providing me with substantial portions of his manuscript before publication, and for his correspondence, advice, and encouragement. W. Pötscher (“Der stumme Sohn der Kroisos,” *Zeitschrift für klinische Psychologie und Psychotherapie* 20 [1974], 367–68) argues that the muteness was psychogenic and not connected with deafness at all.
42. Ludwig and Emma Edelstein (*Asclepius: A Collection and Interpretation of the Testimonies*, 2 vols. [Baltimore, 1945]) have collected and translated much of IG IV².951, a stele from the healing site at Epidaurus, both sides of which consist of narrations of various complications and cures. For the translation of this case, see 230–31. This cure is typically miraculous, listed among other cures such as the restoration of a lost eyeball and the disappearance of scars.

43. Mabel Lang (*Cure and Cult in Ancient Corinth: A Guide to the Asklepios* [Princeton, 1977], 15) uses headache as an example of an abstract ailment. This difficulty of representation may explain the lack of reference to deafness or muteness in the surviving papyri; I have yet to see a reference to either. Physical characteristics do appear in the papyri, especially in the private documents, but usually as neutral attributes, such as scars, that identify people. A negative characteristic (e.g., not speaking) would be inefficient identification.
44. Such offerings could also represent thank offerings or pleas for cures of ear infections. Van Straten (GG, 105–43) catalogues votive offerings representing body parts from the Greek world. Models of ears were found on many sites.
45. Here (*History of Animals* 1.11.492 a) Aristotle associates large, projecting ears with senseless chatter.
46. Van Straten (GG, 110) points out that while there are no surviving examples of mouths, there is testimony for eight examples at the Athenian Asclepion. Sara Aleshire (*The Athenian Asklepios: The People, Their Dedications, and the Inventories* [Amsterdam, 1989], 41) has little to add to Van Straten's findings in her study, published eight years after Van Straten's, on the issue of votive mouths: she refers the reader to Van Straten for the discussion of mouths.
47. H. S. Versnel, "Religious Mentality in Ancient Prayer," *Faith Hope and Worship*, ed. H. S. Versnel (Leiden, 1981), 30.
48. Van Straten, GG, 83. Van Straten points out (144) that he restricted the ears, in his catalogue of body parts, to the ears which were votive offerings, not representations of gods' ears, although it is impossible to be completely sure which is which. The atmosphere and appearance of the Asclepiions is just lately being reconstructed. Sara Aleshire (*Asklepios at Athens: Epigraphic and Prosopographic Essays on the Athenian Healing Cults* [Amsterdam, 1991], 46) compares the temples of Asclepius, in contrast to the stark reconstructions of bare buildings, to overcrowded antique stores or museum storerooms.
49. We see another example of comedic deafness in Herodas' mime, in which the slave Kydilla, addressing the slave Pyrrhias as "deaf" (κωφέ) tells him that his mistress is calling him, *Mime* 5.55 I. C. Cunningham (*Herodas Miamiami* [Oxford, 1971], 155–56) argues that this term (κωφέ) is not a true vocative. There is nothing to indicate that Pyrrhias was to be taken as a literally deaf character, but the line has a slapstick tone. Cunningham (*LCL* 1993) translates the lines: "Pyrries, you deaf wretch, she is calling you" (Πυρρίης, τάλας, κωφέ, / καλεῖ σε). Similarly, a small fragment of Cratinus' comedy, "Archilochoi," frag. 6 PCG, provides just enough information to confirm that the gag of the deaf man and the blind man interacting existed in the fifth century. The stock gag continues; e.g., the interactions between a blind butler and deaf maid are meant to be comic in the film *Murder by Death*, dir. Robert Moore, Columbia, 1984.
50. Here, the phrase is "diminished hearing" (ἀκουεινῆτον).
51. M. I. Finley ("The Elderly in Classical Antiquity," *Greece and Rome* 28 [1981]: 156 and passim) discusses the role of the elderly in comedy.
52. Meyer Reinhold ("The Generation Gap in Antiquity," *The Conflict of Generations in Ancient Greece and Rome*, ed. M. Bertman [Amsterdam, 1976], 44) argues that the conflict of generations is particularly a fifth-century phenomenon. Gerhard Salomon ("Hearing Problems and the Elderly," *Danish Medical Bulletin* 33 suppl. 3 [1986]: 12) points out that hearing loss may magnify the traits of senility.
53. Victor Hanson, *The Western Way of War: Infantry Battle in Classical Greece* (New York, 1989), 95.
54. Victor Hanson, *The Western Way of War: Infantry Battle in Classical Greece* (New York, 1989), 95. The panic was not necessarily always noise-induced, but may have been: Hanson (147–50, 152–54) reconstructs the chaos and the noise of battle.
55. Jan Bremmer ("The Old Women of Ancient Greece," *Sexual Asymmetry*, ed. J. Blok and P. Mason [Amsterdam, 1987], 191–215) has assembled the evidence that exists. Silence in a woman was virtuous, and women's speech was, at best, considered less valuable than men's speech (e.g., Nancy Sorkin Rabinowitz, "Female Speech and Female Sexuality: Euripides' *Hippolytus* as Model," *Helios* 13 [1986]: 127–40), and it is interesting to wonder what attitudes a mute woman might have encountered, given the ideals of feminine silence. Because there is no record of such attitudes, all we can do is wonder.
56. *Greek Anthology* 11.74. "In fact," the narrator says, "she does not comprehend a word I say." This is the only significant instance of a deaf woman that I have found in the Greek material.
57. Henry Kisor (*What's That Pig Outdoors?* [New York, 1990]), throughout his autobiography, dispels the notion that a deaf person can always read lips efficiently.
58. Lane (*WMH*, 93) writes that "those who were deaf only but could speak—who had established their credentials in the eyes of hearing society and knew their oral language—have always been regarded as persons at law." That those who could speak have "always" been seen as worthwhile is probably true, but the earliest documentation, as Lane points out, is not until the Code of Justinian, sixth century A. D.
59. The question of nasal speech comes up in Pseudo-Aristotle, *Problems*, 11.2.899 a; the answer hinges on the relation between deafness and dumbness, followed by a physiological explanation about breath and tongue, mirroring the Hippocratic Corpus, *Fleshes* 8; another connection between deafness and dumbness, followed by an explanation that the nostrils of the deaf are distended because the deaf breathe more violently, 11.4.899 a; and a suggestion that deafness is a congestion in the region of the lungs, 33.14.962 b. Similarly, Galen, 8.267.14–16, describes a condition in which injured throat muscles result in a wounded voice, but specifies that a weak voice, not muteness, results (σικκρόφωνος οὐ ὅτε δὲ ἄφωνος).
60. Ironically, Hannah Gershon ("Who Gets to be Called Deaf? Cultural Conflicts Between Deaf Populations," Society for Disability Studies 1994 Annual Meeting, Rockville, 24 June 1994) argued that in deaf culture today, while all audiotically

- deaf people are “permanent exiles” from the world of sound, late-deafened adults are “immigrants” in deaf culture, who “never lose their hearing accent,” while those who grew up without hearing have a solid identity in deaf society.
61. Battus, who according to Herodotus, 4.155–58, was the seventh century B. C. founder of Cyrene, is also a good example: on one hand, his speech disorder—usually taken as a stutter—was part of his identity. On the other hand, his legend involves a full role in the political sphere. O. Masson (“Le nom de Battos, fondateur de Cyrene,” *Glotta* 54 [1976]: 84–98) discusses the etymology of the name “Battus.”
 62. William Stokoe, “Language, Prelanguage, and Sign Language,” *Seminars in Speech and Language* 11 (1990), 93.
 63. Venetta Lampropoulou (“The History of Deaf Education in Greece,” *The Deaf Way*, ed. C. Erting et al. [Washington, D.C., 1995], 240) suggests that deaf babies in Sparta were included among those “with disabilities” and discarded. There is no reason, though, to believe that babies born deaf were subject to infanticide, if only because the deafness would not be detected until later, as Danielle Gourevitch (“Un enfant muet de naissance s’exprime par le dessin: à propos d’un cas rapporté par Plinie l’Ancien,” *L’Evolution psychiatrique* 56 [1991]: 890) points out. It is possible that a child who was perceived as worthless would have received less than his or her share of necessities and thus eventually would have died, but there is no evidence for or against this.
 64. Steven Pinker (*The Language Instinct* [New York, 1994], 37–38) points out that successful language acquisition must take place in childhood, and (293) that the likelihood of acquiring spoken language is steadily compromised after the age of six. Franklin Silverman, *Communication for the Speechless* (Boston, 1995), 11.
 65. In extreme cases today, children without language are treated as subhuman, even “wild.” “Genie” is a recent case of a “wild child” who, until thirteen years old, had been raised in near-isolation, not deaf but language-deprived. Her portrait illustrates the severe consequences of the intertwined lack of language and socialization: Genie “was unsocialized, primitive, hardly human.” Susan Curtiss, *Genie: A Psycholinguistic Study of a Modern-Day “Wiled Child”* (New York, 1977), 9. Russ Rymmer (Genie: An Abused Child Flight From Silence [New York, 1993]) discusses several other cases of mute children, including (205) a deaf woman misdiagnosed as mentally retarded, who grew up in the backwoods and was deprived of language until she was in her thirties. It is interesting that satyrs—subhuman inhabitants of the wilds—are vaguely associated with muteness. Silens, too, are intriguing in this context. Guy Michael Hedreen (*Silens in Attic Black-figure Vase-painting: Myth and Performance* [Ann Arbor, 1992], 1) describes silens, the mythical horse-man hybrids who are related to satyrs, but who bear more resemblance to humans than do satyrs. Plutarch (*Sulla* 27.2) relates the tale of Sulla’s discovery of a Greek satyr; Sulla was unable to force it to do more than grunt. The satyr Silenus was supposed to possess unlimited wisdom but, at least according to Vergil (*Eclogues* 6.13) had to be forced to speak. One wonders about the lost Sophoclean *Deaf Satyrs*, frags. 362–63, but with only two surviving partial lines to accompany the title, one can only wonder. A. C. Pearson (ed., *The Fragments of Sophocles*, 3 vols. [Cambridge, England, 1917], 2:31) suggests that “the κωφοί” were ‘blockheads,’ and discusses other scholars’ theories on the content of the play.
 66. Carol Padden (review of *A Man Without Words*, by Susan Schaller, *American Journal of Psychology* 105 [1992]: 652–53) writes that the “wild children” such as Victor and Genie lacked not just language, but also the ability to take part in life’s social rhythm.
 67. Alan L. Boegehold (“Some Modern Gestures in Ancient Greek Literature,” *Transactions of the Greek Humanistic Society* 1 [forthcoming]: 2–3) encourages scholars of ancient Greek to pay attention not only to the written words but also to the implied gestures. I thank Dr. Boegehold for providing me with this essay before publication. Boegehold provides a specific example in “A Signifying Gesture: Euripides, *Iphigenia Taurica*, 965–66, *American Journal of Archaeology* 93 (1989), 81–83, in which he argues that the gesture made by Athena, suggested by the word ὠλένι, has a specific indication: an equal (thus favorable) conclusion of the sorting of votes in the trial of Orestes.
 68. S. Goldin-Meadow and C. Mylander, “The Development of Morphology Without a Conventional Language Model,” *From Gesture to Language in Hearing and Deaf Children*, ed. V. Volterra and C.J. Erting (New York, 1990), 165. Lane (*WMH*, 5) describes “home sign,” a system of abbreviated gestures. Steven Pinker (*The Language Instinct* [New York, 1994], 36) cites a situation in Nicaragua in the 1970s in which deaf children pooled their gestures and developed what is now a codified system of gestures. Since it is not based on consistent grammar, this system is “basically pidgin.”
 69. Harlan Lane, *The Mask of Benevolence: Disabling the Deaf Community* (New York, 1992), 147.
 70. Harlan Lane, *The Mask of Benevolence: Disabling the Deaf Community* (New York, 1992), 151. Mark Golden (*Children and Childhood in Classical Athens* [Baltimore, 1990], 35–36) discusses the agricultural labor of children—gathering stones from the field, breaking up dirt, tending animals—as a criterion that helps assess their value as an economic unit in the family.
 71. William Stokoe (“Seeing Clearly Through Fuzzy Speech,” *Sign Language Studies* 82 [1994], 90) argues that all language is gesture.
 72. William Stokoe, *Semiotics and Human Sign Languages*, *Approaches to Semiotics* 21 (Paris, 1972), 13. Syntax is the difference between gesture and signed language.
 73. Robert E. Johnson and Carol Erting (“Ethnicity and Socialization in a Classroom for Deaf Children,” *The Sociolinguistics of the Deaf Community*, ed. C. Lucas [New York, 1989], 43) point out that in America, deafness goes beyond a physical disability to include a set of attitudes and behaviors. They further point out (49) that the shared experience based on a visual culture is one of the elements that creates a community among deaf people. Whether or not a deaf community existed anywhere in the ancient Greek world is impossible to determine, though one imagines that at least in the rural

- areas of Greece, there were only isolated, deaf individuals. Lane (*WMH*, 112 and *passim*) cites “signing communities” in eighteenth-century France that, he argues, formed the basis of formal education for the deaf. In any case, it is important to distinguish between early communities of deaf people and the newer deaf community. Petra Rose and Gary Kiger (“Intergroup Relations: Political Action and Identity in the Deaf Community,” Society for Disability Studies Annual Meeting, Rockville, Maryland, 23 June 1994) trace the newer, radical element of the deaf community to the Deaf Power movement in the 1970s, in which deaf people “acquired a voice” and recognized themselves as a minority with a cultural heritage.
74. M. C. Da Cunha Pereira and C. De Lemos (“Gesture in Hearing Mother-Deaf Child Interaction,” *From Gesture to Language in Hearing and Deaf Children*, ed. V. Volterra and C. J. Erting [New York, 1990], 186) point out that, while deaf children in hearing families develop the skills necessary to learning sign language, a sign language does not materialize on its own, even between deaf peers. Sign language must be taught by someone proficient in it.
 75. If in Athens, with the largest population of any Greek polis by far, there were 60,000 citizens ca. 500 B. C., as Chester Starr (*The Economic and Social Growth of Early Greece 800–500 B. C.* [New York, 1977], 152–56) calculates, 600 citizens would have been severely deaf; sixty would have been congenitally deaf. The category of “citizens” includes male residents eligible to vote and does not include women, children, slaves, or foreign residents. If we double the population figure of 60,000 to include women, and double it again to include two children for each family, we still have only 240 congenitally deaf people up and down Attica, with no particular reason that they would be aware of each other’s presence, especially given the lack of public schools. In a smaller community such as the island of Melos, with its fifth-century population of about 1,250 citizens, as Eberhard Ruschenbusch (“Tribut und Bürgerzahl im ersten athenischen Seebund,” *Zeitschrift für Papyrologie und Epigraphik* 53 [1983]: 145) estimates, one or two citizens would be congenitally deaf, and about five people altogether. On one hand, these figures do not account for the possibility that, as noted earlier, the diseases that leave people deaf in the modern world may have killed people in the ancient world. On the other hand, they do not take into account genetic phenomena that might have increased the prevalence of deafness in island communities.
 76. But William Stokoe (“Discovering a Neglected Language,” *Sign Language Studies* 85 [1994]: 377) believes that sign language has a long history, documented or not: “In my opinion,” he writes, “if the ancestor of sign language is ever found, it will turn out to be the first human, most likely a woman, who realized that gestures not only meant whatever two or more people agreed on that they meant, because they may also connect meanings—they may be words or sentences, depending on how one looks at them.”
 77. As William Stokoe (Language, Prelanguage, and Sign Language,” *Seminars in Speech and Language* 11 [1990]: 94) points out.
 78. Xenophon (*Anabasis* 4.5.33) describes soldiers with a language barrier using gestures as if mute (ἐνεϊοῖς). Ctesias (*FGrH* 688 F 45) refers to using signs like “the deaf and speechless” (κωφοὶ καὶ ἄλαλοι). Plato (*Cratylus* 422 d-e) too, has Socrates suggest communication by gesture, “as mute men” (ἐνεοί).
 79. William Harris, *Ancient Literacy* (Cambridge, Mass., 1989), 67.
 80. Rosalind Thomas (*Literacy and Orality in Ancient Greece* [Cambridge, England, 1992], 2–4) discusses the extent of non-literacy. Eric Havelock (*Origins of Western Literacy* [Toronto, 1976], 7) drives the point home by pointing out that Pindar and Plato were nearly nonliterate.
 81. Eric Havelock (*Origins of Western Literacy* [Toronto, 1976], 46–47) traces the ancient development of reading fluency (Possible only when the components of the alphabet have no independent meaning at all). He argues (21) that scriptural literacy only appeared at the beginning of the fourth century B. C.
 82. Mark Golden (*Children and Childhood in Classical Athens* [Baltimore, 1990], 62–65) discusses children’s education, of which reading and writing was a component (62). Golden (73–74) discusses the education of girls, which was conducted at home. While there is no evidence one way or the other, it is doubtful that a congenitally-deaf child would be thought to be capable of receiving more than rudimentary instruction, let alone formal education.
 83. The tale is recorded in various sources, including the fragments of Sophocles’ lost play *Tereus* (frags. 581–95, A. C. Pearson, ed., *The Fragments of Sophocles* [Cambridge, Mass., 1917]); Apollodorus, 3.14.8; Pausanias, 1.41.8–9. Only in Apollodorus’ version does Philomela weave written characters (γράμματα), as opposed to images, into her robe.
 84. For example, Clytemnestra, in Aeschylus, *Agamemnon* 1060–1061, commands an unresponsive Cassandra, “Speak not, but make with your barbarian hand some sign” (σὺδ’ ἀντὶ φωνῆς φράζε καθάνω χερσί). Similarly, the Phrygian messenger in Euripides, *Orestes* (1369–526), both foreign and terrified, delivers his barely coherent report by pantomime, to the impatience and disgust of his audience.
 85. Pseudo-Aristotle (*Problems* 898 b) asks why those who suffer any defect from birth mostly have bad hearing, and asks in answer if it is because hearing and voice arise from the same source; he also observes (*Problems* 33.1.961 b) that men become deaf and dumb (ἐνεοὶ καὶ κωφοί) at the same time. This observation is echoed by Pliny (*Natural History* 10.88.192).
 86. Babies who are born deaf, after all, still cry. Carol Padden and Tom Humphries (*Deaf in America* [Cambridge, Mass., 1988], 91) point out that “a widespread misconception among hearing people is that Deaf people live in a world without sound,” and that the metaphor of silence “is clumsy and inadequate as a way of explaining what Deaf people know and do” (109).
 87. Yves Violé O’Neill, *Speech and Speech Disorders in Western Thought Before 1600* (Westport, 1980), 3–11.

88. For example, Herodotus (1.34) uses “deaf” (κωφός) and “speechless” (ἄφωνος) (1.85) interchangeably to refer to Croesus’ son. It is interesting to note that modern Greek combines the term for deaf (κωφός) and mute (-1 πτῆλας) into one word for “deaf-mute” (κωφάλας). I have not found this compound term in the ancient Greek vocabulary.
89. Harlan Lane (*The Mask of Benevolence: Disabling the Deaf Community* [New York, 1992], 147) points out that this misperception still exists today.
90. There are of course many possible interpretations. D. L. Drew (“Euripides’ *Alcestis*,” *American Journal of Philology* 52 [1931]: 295–319) argues that this is the corpse of Alcestis. Whether the figure on stage was meant to be seen as alive, dead, or something in between, Drew points out (313) that even if only three speaking actors were available, her continued silence was not necessary from a technical standpoint. Charles Segal (*Art, Gender, and Communication in Alcestis, Hippolytus, and Hecuba* [Durham, 1993], 49) writes that Alcestis’ final silence has associations with death.
91. John Gager (*Curse Tablets and Binding Spells From the Ancient World* [New York, 1992], 116–50) discusses curses and binding spells in the courtroom. While many of the curses he cites give only the bare information, such as the names of the people to be cursed, others specifically request speechlessness, such as a tablet from the Piræus (date unknown), in which a woman’s tongue is cursed to be bound, made of lead, and stabbed (159–60). Nonpolitical curses: *SEG* 35.214, 216, 218, 220–23. These are A. D. third-century defixiones, discussed by David Jordan (“Defixiones From a Well Near the Southwest Corner of the Athenian Agora,” *Hesperia* 54 [1985]: 105–255) as curses on individual athletes. The typical curse: “may he be deaf (κωφός); speechless (-1 πτῆλας); mindless (-1 πτῆνους),” and so on. Although the surviving examples of curses mentioning κωφός are late, Gager (5) shows that defixiones did exist as early as the fifth century B. C. Generally, the earlier the curse tablet, the simpler the spell; the earliest often include only the name of the victim.
92. This is reminiscent of the wisdom that the priestess at the Delphic oracle gives Croesus: it is better, she says, that his son remain mute, Herodotus (1.85).

References

Primary Sources

- Aeschylus. sixth/fifth centuries B. C. 1973 [1922]. Trans. H. Smyth. Loeb Classical Library. Vol. 1. Cambridge: Harvard University Press. 2 vols.
- . sixth/fifth centuries B. C. 1983 [1926]. Trans. H. Smyth. Loeb Classical Library. Vol. 2. Cambridge: Harvard University Press. 2 vols.
- Apollodorus. second century B. C. 1976 [1921]. Trans. G. Frazer. Loeb Classical Library. Cambridge: Harvard University Press. 2 vols.
- Aristophanes. fifth century B. C. 1982 [1924]. Trans. B. B. Rogers. Loeb Classical Library. Vol. 2. Cambridge: Harvard University Press. 3 vols.
- Aristotle. fourth century B. C. 1979 [1965]. Trans. A. L. Peck. Loeb Classical Library. Cambridge: Harvard University Press. 23 vols.
- . fourth century B. C. 1991. Trans. D. M. Balme. Loeb Classical Library. Vol. 11. Cambridge: Harvard University Press. 23 vols.
- . fourth century B. C. 1979 [1942]. Trans. A. L. Peck. Loeb Classical Library. Vol. 13. Cambridge: Harvard University Press. 23 vols.
- . fourth century B. C. 1970 [1926]. Trans. W. S. Hett. Loeb Classical Library. Vol. 15. Cambridge: Harvard University Press. 23 vols.
- . fourth century B. C. 1983 [1937]. Trans. W. S. Hett. Loeb Classical Library. Vol. 15. Cambridge: Harvard University Press. 23 vols.
- Athenaeus. second century A. D. 1980 [1937]. *Deipnosophistae*. Trans. C. B. Gulick. Loeb Classical Library. Vol. 6. Cambridge: Harvard University Press. 7 vols.
- Celsus. first century B. C. 1971 [1935]. *De Medicina*. Trans. W. G. Spencer. Loeb Classical Library Vol. 1. Cambridge: Harvard University Press. 3 vols.
- . first century B. C. 1961 [1938]. *De Medicina*. Trans. W. G. Spencer. Loeb Classical Library. Vol. 2. Cambridge: Harvard University Press. 3 vols.
- Diodorus Siculus. first century B. C. 1961 [1935]. Trans. C. H. Oldfather. Loeb Classical Library. Vol. 2. Cambridge: Harvard University Press. 12 vols.
- Edelstein, Emma and Ludwig Edelstein. 1945. *Asclepius: A Collection and Interpretation of the Testimonies*. Vol. 1. Baltimore: Johns Hopkins Press. 2 vols.
- Euripides. fifth century B. C. 1987. *Alcestis*. A. M. Dale, ed. Oxford: Clarendon Press.
- . fifth century B. C. 1978. *Orestes*. G. Murray, ed. 2nd ed. Vol. 2. Oxford: Clarendon Press. 3 vols.
- Galen. second century A. D. 1821–33. *Medicorum Graecorum*. C. G. Kühn, ed. 20 vols. Leipzig: Knobloch.
- Gager, John. 1992. *Curse Tablets and Binding Spells from the Ancient World*. New York: Oxford University Press.

- The Greek Anthology*. 1979. Trans. W. R. Paton. Vol. 4. Loeb Classical Library. Cambridge: Harvard University Press. 5 vols.
- Herodas. third century B. C. 1971. *Herodas Miamiambi*. I. C. Cunningham, ed. Oxford: Clarendon Press.
- Herodas. third century B. C. 1993. *Mimes*. In *Theophrastus, Characters; Herodas, Mimes; Cercidas and the Choliambic Poets*. Ed. and trans. I. C. Cunningham. Loeb Classical Library. Cambridge: Harvard University Press.
- Herodotus. fifth century B. C. 1981–90 [1920–25]. Trans. A. D. Godley. Loeb Classical Library. Cambridge: Harvard University Press. 4 vols.
- Hesiod. ca. seventh century B. C. 1990. Friedrich Solmson, ed. 3rd ed. Oxford: Clarendon Press.
- Hippocrates. ca. sixth through fourth centuries B. C. 1839–1861. *Oeuvres complètes d'Hippocrate*. É. Littré, ed. Paris: Ballière. 10 vols.
- Homer. ca. eighth century B. C. 1988–93 [1924–25]. *Iliad*. Trans. A. T. Murray. Loeb Classical Library. Cambridge: Harvard University Press. 2 vols.
- Jacoby, Felix. 1958. *Die Fragmente der griechischen Historiker*. 3:C. Leiden: E. J. Brill.
- Jordan, David. 1985. "Defixiones From a Well Near the Southwest Corner of the Athenian Agora." *Hesperia* 54: 105–255.
- Kassel, R. and C. Austin. 1983. *Poetae Comici Graeci*. Vol. 4. Berlin: Walter de Gruyter. 7 vols.
- Page, D. L. 1967. *Poetae Melici Graecae*. Oxford: Clarendon Press.
- Pausanias. second century A. D. 1977–79 [1918–33]. Trans. W. H. S. Jones. Loeb Classical Library. Cambridge: Harvard University Press. 4 Vols.
- Pearson, A. C. 1917. *The Fragments of Sophocles*. Vol. 2. Cambridge: Cambridge University Press. 3 vols.
- . *The Fragments of Sophocles*. 1917. Vol. 3. Cambridge: Cambridge University Press, 1917. 3 vols.
- Petzl, Georg. 1982. *Die Inschriften von Smyrna*. Inschriften Griechischer Städte Aus Kleinasien 23. Bonn: Rudolf Habelt.
- Plato. fifth/fourth centuries B. C. 1977 [1926]. Trans. H. N. Fowler. Vol. 4. Loeb Classical Library. Cambridge: Harvard University Press. 12 vols.
- . fifth/fourth centuries B. C. 1977 [1927]. Trans. H. N. Fowler. Vol. 5. Loeb Classical Library. Cambridge: Harvard University Press. 12 vols.
- . fifth/fourth centuries B. C. 1977 [1921]. Trans. H. N. Fowler. Vol. 7. Loeb Classical Library. Cambridge: Harvard University Press. 12 vols.
- Pleket, H. W. and R. S. Stroud, eds. 1988. Vol. 35. *Supplementum Epigraphicum Graecum*. Amsterdam: J. C. Gieben.
- Pliny. first century A. D. 1983 [1940]. *Natural History*. Trans. H. Rackham. Vol. 3. Loeb Classical Library. Cambridge: Harvard University Press. 10 vols.
- . first century A. D. 1971 [1962]. *Natural History*. Trans. D. E. Eichholz. Vol. 10. Loeb Classical Library. Cambridge: Harvard University Press. 10 vols.
- Plutarch. first/second centuries A. D. 1968 [1916]. *Lives*. Trans. B. Perrin. Vol. 4. Loeb Classical Library. Cambridge: Harvard University Press. 11 vols.
- . first/second centuries A. D. 1971 [1919]. *Lives*. Trans. B. Perrin. Vol. 7. Loeb Classical Library. Cambridge: Harvard University Press. 11 vols.
- . first/second centuries A. D. 1936. *Moralia*. Trans. F. C. Babbitt. Vol. 5. Loeb Classical Library. Cambridge: Harvard University Press. 15 vols.
- Strabo. first century B. C./first century A. D. 1928. *Geography*. Trans. H. L. Jones. Vol. 5. Loeb Classical Library. Cambridge: Harvard University Press. 8 vols.
- Vergil. first century B. C. 1978 [1916]. Trans. H. R. Fairclough. Loeb Classical Library. Vol. 1. Cambridge: Harvard University Press. 2 vols.
- Xenophon. fifth/fourth centuries B. C. 1983 [1914]. Trans. W. Miller. Loeb Classical Library. Vol. 4. Cambridge: Harvard University Press. 7 vols.
- . fifth/fourth centuries B. C. 1979 [1923]. Trans. O. J. Todd. Loeb Classical Library. Vol. 5. Cambridge: Harvard University Press. 7 vols.

Secondary Material: Ancient Topics

- Aleshire, Sara. 1991. *Asklepios at Athens: Epigraphic and Prosopographic Essays on the Athenian Healing Cults*. Amsterdam: J. C. Gieben.
- . 1989. *The Athenian Askleion: The People, Their Dedications, and the Inventories*. Amsterdam: J. C. Gieben.
- Angel, J. Lawrence. 1947. "The Length of Life in Ancient Greece." *Journal of Gerontology* 2: 18–24.
- Boegehold, Alan. Forthcoming. "Some Modern Gestures in Ancient Greek Literature." *Transactions of the Greek Humanistic Society* 1.
- . 1989. "A Signifying Gesture: Euripides, *Iphageneia Taurica* 965–66." *American Journal of Archaeology* 93: 81–83.
- Bremmer, Jan. 1987. "The Old Women of Ancient Greece." *Sexual Asymmetry: Studies in Ancient Society*. Ed. J. Blok and P. Mason. Amsterdam: J. C. Gieben. 191–215.
- Burford, Alison. 1993. *Land and Labor in the Greek World*. Baltimore: Johns Hopkins University Press.
- Dawson, Warren R. 1986. "Herodotus as a Medical Writer." *Bulletin of the Institute of Classical Studies* 33: 87–96.
- Drew, D. L. 1931. "Euripides' *Alkestis*." *American Journal of Philology* 52: 295–319.

- Evans, J. A. S. 1991. *Herodotus: Explorer of the Past*. Princeton: Princeton University Press.
- Finley, M. I. 1981. "The Elderly in Classical Antiquity." *Greece and Rome* 28: 156–71.
- Garland, Robert. 1995. *The Eye of the Beholder: Deformity and Disability in the Graeco-Roman World*. Ithaca: Cornell University Press.
- Golden, Mark. 1990. *Children and Childhood in Classical Athens*. Baltimore: Johns Hopkins University Press.
- Gourevitch, Danielle. 1983. "L'aphonie hippocratique." *Formes de pensée dans la Collection hippocratique*. Ed. F. Lasserre and P. Mudry. Geneva: Librairie Droz: 297–305.
- . 1991. "Un enfant muet de naissance s'exprime par le dessin: à propos d'un cas rapporté par Pline l'Ancien." *L'Evolution psychiatrique* 56: 889–93.
- . 1984. *Le Mal d'être femme: la femme et la médecine dans la Rome antique*. Paris: Société d'édition "Les Belles Lettres."
- Grmek, Mirko. 1989. *Diseases in the Ancient Greek World*. Trans. M. Muellner. Baltimore: Johns Hopkins University Press.
- Hansen, Mogens Herman. 1985. *Demography and Democracy: The Number of Athenian Citizens in the Fourth Century B. C.* Herning, Denmark: Systime.
- Hanson, Victor Davis. 1989. *The Western Way of War: Infantry Battle in Classical Greece*. New York: Knopf.
- Harris, William. 1989. *Ancient Literacy*. Cambridge: Harvard University Press.
- Havelock, Eric. 1976. *Origins of Western Literacy*. Toronto: Ontario Institute for Studies in Education.
- Hedreen, Guy Michael. 1992. *Silens in Attic Black-figure Vase-painting: Myth and Performance*. Ann Arbor: University of Michigan Press.
- Koelbing, Huldrych. 1977. *Arzt und Patient in der Antiken Welt*. Munich: Artemis.
- Lang, Mabel. 1977. *Cure and Cult in Ancient Corinth: A Guide to the Asklepieion*. Princeton: American School of Classical Studies at Athens.
- Majno, Guido. 1975. *The Healing Hand: Man and Wound in the Ancient World*. Cambridge: Harvard University Press.
- Masson O. 1976. "Le nom de Battos, fondateur de Cyrene," *Glotta* 54: 84–98.
- O'Neill, Yves Violé. 1980. *Speech and Speech Disorders in Western Thought Before 1600*. Westport: Greenwood Press.
- Pötscher, W. 1974. "Der stumme Sohn der Kroisos." *Zeitschrift für klinische Psychologie und Psychotherapie* 20: 367–68.
- Pomeroy, Sarah. 1993. "Infanticide in Hellenistic Greece." *Images of Women in Antiquity*. Ed. A. Cameron and A. Kuhrt. 2nd ed. Detroit: Wayne State University Press. 207–22.
- Rabinowitz, Nancy Sorkin. 1986. "Female Speech and Female Sexuality: Euripides' *Hippolytus* as Model." *Helios* 13: 127–40.
- Reinhold, Meyer. 1976. "The Generation Gap in Antiquity." *The Conflict of Generations in Ancient Greece and Rome*. Ed. S. Bertman. Amsterdam: Grüner. 15–54.
- Ruschenbusch, Eberhard. 1983. "Tribut und Bürgerzahl im ersten athenischen Seebund." *Zeitschrift für Papyrologie und Epigraphik* 53: 125–48.
- Sallares, Robert. 1991. *The Ecology of the Ancient Greek World*. Ithaca: Cornell University Press.
- Segal, Charles. 1993. *Art, Gender, and Communication in Alcestis, Hippolytus, and Hecuba*. Durham: Duke University Press.
- Starr, Chester. 1977. *The Economic and Social Growth of Early Greece 800—500 B. C.* New York: Oxford University Press.
- Thomas, Rosalind. 1992. *Literacy and Orality in Ancient Greece*. Cambridge: Cambridge University Press.
- Van Straten, F. T. 1981. "Gifts for the Gods." *Faith Hope and Worship*. Ed. H. S. Versnel. Leiden: E. J. Brill. 65–151.
- Versnel, H. S. 1981. "Religious Mentality in Ancient Prayer." *Faith Hope and Worship*. Ed. H. S. Versnel. Leiden: E. J. Brill. 1–64.
- Wells, Calvin. 1964. *Bones, Bodies and Disease: Evidence of Disease and Abnormality in Early Man*. Ancient Peoples and Places 37. Bristol: Western Printing Services.
- Živanović, Srbojub. 1982. *Ancient Diseases: The Elements of Paleopathology*. Trans. L. Edwards. New York: Pica Press, 1982.

Secondary Material: Modern Topics

- Canadian Task Force of the Health Services Directorate. 1988. *Acquired Hearing Impairment of the Adult*. Ottawa: Minister of National Health and Welfare.
- Cohen, M. Michael and Robert J. Gorlin. 1995. "Epidemiology, Etiology, and Genetic Patterns." *Hereditary Hearing Loss and Its Syndromes*. Ed. R. Gorlin, H. Toriello and M. Cohen. Oxford Monographs on Medical Genetics 28. New York: Oxford University Press. 9–21.
- Curtiss, Susan. 1977. *Genie: A Psycholinguistic Study of a Modern Day "Wild Child"*. New York: Academic Press.
- Gershon, Hannah. 1994. "Who Gets to be Called 'Deaf'? Cultural Conflict Between Deaf Populations." Society for Disability Studies Annual Meeting. Rockville, 24 June.
- Gloring, Aram and Jean Roberts. 1965. "Hearing Levels of Adults by Age and Sex." *Vital and Health Statistics Ser.* 11, 11: 1–34.
- Goldin-Meadow, S. and C. Mylander. 1990. "The Development of Morphology Without a Conventional Language Model." *From Gesture to Language in Hearing and Deaf Children*. Ed. V. Volterra and C. J. Erting. New York: Springer-Verlag. 165–77.
- Greenfeld, Josh. 1972. *A Child Called Noah*. New York: Washington Square Press.
- Groce, Nora. 1985. *Everyone Here Spoke Sign Language: Hereditary Deafness on Martha's Vineyard*. Cambridge: Harvard University Press.

- Haller, Beth. 1995. "Rethinking Models of Media Representation of Disability." *Disability Studies Quarterly* 15: 29–30.
- Hogan, Anthony. 1984. Letter to the Author. 14 July.
- Itard, Jean Marc Gaspard. 1962. *The Wild Boy of Aveyron (L'enfant sauvage)*. Trans. G. and M. Humphrey. New York: Meredith.
- Johnson, Robert E. and Carol Erting. 1989. "Ethnicity and Socialization in a Classroom for Deaf Children." *The Sociolinguistics of the Deaf Community*. Ed. C. Lucas. New York: Academic Press. 41–83.
- Kiger, Gary, Stephen Hey and J. Gary Linn. 1994. "Introduction." *Disability Studies: Definitions and Diversity*. Ed. G. Kiger, S. Hey, and J. G. Linn. Salem, Oregon: Society for Disability Studies and Willamette University. 1–4.
- Kisor, Henry. 1990. *What's That Pig Outdoors? A Memoir of Deafness*. New York: Penguin Books.
- Kryter, Karl. 1985. *The Effects of Noise on Man*. 2nd ed. Orlando: Academic Press.
- Lampropoulou, Venetta. 1995. "The History of Deaf Education in Greece." *The Deaf Way: Perspectives from the International Conference on Deaf Culture*. Ed. C. J. Erting, R. C. Johnson, D. L. Smith, and B. D. Snider. Washington, D. C.: Gallaudet University Press. 239–49.
- Lane, Harlan. 1992. *The Mask of Benevolence: Disabling the Deaf Community*. New York: Knopf.
- . 1985. *When the Mind Hears: A History of the Deaf*. New York: Random House.
- . and Richard Pillard. 1978. *The Wild Boy of Burundi: A Study of an Outcast Child*. New York: Random House.
- Li, Ha-Sheng. 1992. "Genetic Influence on Susceptibility of the Auditory System to Aging and Environmental Factors." *Scandinavian Audiology* 21, Supplement 36: 1–39.
- Mohay, H. 1990. "The Interaction of Gesture and Speech in the Language Development of Two Profoundly Deaf Children." *From Gesture to Language in Hearing and Deaf Children*. Ed. V. Volterra and C. J. Erting. New York: Springer-Verlag. 187–204.
- Murder By Death*. 1984. Directed by Robert Moore. Columbia.
- Padden, Carol and Tom Humphries. 1988. *Deaf in America: Voices from a Culture*. Cambridge: Harvard University Press.
- Padden, Carol. 1992. Review of *A Man Without Words*, by Susan Schaller. *American Journal of Psychology* 105: 648–53.
- Pereira Da Cunha, M. C. and C. De Lemos. 1990. "Gesture in Hearing Mother—Deaf Child Interaction." *From Gesture to Language in Hearing and Deaf Children*. Ed. V. Volterra and C. J. Erting. New York: Springer-Verlag. 178–86.
- Pinker, Steven. 1994. *The Language Instinct: How the Mind Creates Language*. New York: William Morrow and Company.
- Prazma, Jiri. 1981. "Ototoxicity of Aminoglycoside Antibiotics." *Pharmacology of Hearing: Experimental and Clinical Bases*. Ed. R. D. Brown and E. A. Daigneault. New York: John Wiley.
- Rose, Petra and Gary Kiger. 1994. "Intergroup Relations: Political Action and Identity in the Deaf Community." Society for Disability Studies Annual Meeting. Rockville, 23 June.
- Rymer, Russ. 1993. *Genie: An Abused Child's Flight From Silence*. New York: Harper Collins.
- Salih, Mustafa Abdalla. 1990. "Childhood Acute Bacterial Meningitis in the Sudan: An Epidemiological, Clinical and Laboratory Study." *Scandinavian Journal of Infectious Diseases Supplement* 66: 1–103.
- Salomon, Gerhard. 1986. "Hearing Problems and the Elderly." *Danish Medical Bulletin Special Supplement Series on Gerontology* 33, Supplement 3: 1–17.
- Scheetz, Nanci. 1993. *Orientation to Deafness*. Boston: Allyn and Bacon.
- Silverman, Franklin. 1995. *Communication for the Speechless: An Introduction to Nonvocal Communication Systems for the Severely Handicapped*. 3rd ed. Boston: Allyn and Bacon.
- Soucek, Sava and Leslie Michaels. 1990. *Hearing Loss in the Elderly: Audiometric, Electrophysiological and Histopathological Aspects*. London: Springer-Verlag.
- Stokoe, William. 1994. "Discovering a Neglected Language." *Sign Language Studies* 85: 377–82.
- . 1990. "Language, Prelanguage, and Sign Language." *Seminars in Speech and Language* 11: 92–99.
- . 1994. "Seeing Clearly Through Fuzzy Speech." *Sign Language Studies* 82: 85–91.
- . 1972. *Semiotics and Human Sign Languages*. Approaches to Semiotics 21. Paris: Mouton.
- Williams, Donna. 1994. *Somebody Somewhere: Breaking Free From the World of Autism*. New York: Times Books.

Abbreviations

- DAGW M. Grmek, *Diseases in the Ancient Greek World* (Baltimore, 1989).
- FGrH F. Jacoby, *Die Fragmente der griechischen Historiker* (Leiden, 1923).
- GG F. Van Straten, "Gifts for the Gods," *Faith Hope and Worship* (Leiden, 1981).
- LCL Loeb Classical Library.
- PCG R. Kassel and C. Austin, *Poetae Comici Graeci* (Berlin, 1983).
- PMG D. L. Page, *Poetae Melici Graecae* (Oxford, 1967).
- SEG *Supplementum Epigraphicum Graecum*.
- WMH H. Lane, *When the Mind Hears* (New York, 1985).