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Peter C. Hauser, Amanda O'Hearn, Michael McKee, Anne Steider, Denise
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American Annals of the Deaf, Volume 154, Number 5, Winter 2010,
pp. 486-492 (Article)

Published by Gallaudet University Press
DOI: 10.1353/aad.0.0120



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DEAF EPISTEMOLOGY: DEAFHOOD AND DEAFNESS

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EAFF EPISTEMOLOGY constitutes the nature and extent of the knowledge that deaf individuals acquire growing up in a society that relies primarily on audition to navigate life. Deafness creates beings who are more visually oriented compared to their auditorily oriented peers. How hearing individuals interact with deaf individuals shapes how deaf individuals acquire knowledge and how they learn. Aspects of the Deaf episteme, not caused by deafness but by Deafhood, have a positive impact on how deaf individuals learn, resist audism, stay healthy, and navigate the world. Research on psychology, health, and education are reviewed to illustrate how visually oriented beings think and view the world differently from the majority. The article provides support to the theory of multiple epistemologies, and has implications for families, teachers, and researchers.

PETER C. HAUSER, AMANDA O'HEARN, MICHAEL MCKEE, ANNE STEIDER, AND DENISE THEW

HAUSER IS LABORATORY DIRECTOR, DEAF STUDIES LABORATORY, AND AN ASSOCIATE PROFESSOR, DEPARTMENT OF RESEARCH AND TEACHER EDUCATION, NATIONAL TECHNICAL INSTITUTE FOR THE DEAF, ROCHESTER INSTITUTE OF TECHNOLOGY (RIT), ROCHESTER, NY, AND NEUROCOGNITIVE RESEARCH DIRECTOR, NSF SCIENCE OF LEARNING CENTER ON VISUAL LANGUAGE AND VISUAL LEARNING, GALLAUDET UNIVERSITY, WASHINGTON, DC. O'HEARN IS AN ASSISTANT PROFESSOR AND CLINICAL PSYCHOLOGIST, DEAF WELLNESS CENTER, DEPARTMENT OF PSYCHIATRY, UNIVERSITY OF ROCHESTER, ROCHESTER, NY, AND AN AFFILIATED RESEARCHER, NATIONAL CENTER FOR DEAF HEALTH RESEARCH, DEPARTMENT OF COMMUNITY AND PREVENTIVE MEDICINE, UNIVERSITY OF ROCHESTER MEDICAL CENTER (URMC). MCKEE IS A FELLOW, DEPARTMENT OF PREVENTIVE CARDIOLOGY, URMC, AND A PHYSICIAN, FAMILY MEDICINE CLINIC, LIFETIME HEALTH, ROCHESTER, NY. STEIDER IS A STAFF COUNSELOR, UNIVERSITY COUNSELING CENTER, RIT, AND A CLINICAL ASSISTANT PROFESSOR, DEPARTMENT OF PSYCHIATRY, URMC. THEW IS A DOCTORAL STUDENT, COUNSELING PSYCHOLOGY PROGRAM, UNIVERSITY OF NORTH DAKOTA, GRAND FORKS, AND A PSYCHOLOGY INTERN, DEAF WELLNESS CENTER, DEPARTMENT OF PSYCHIATRY, UNIVERSITY OF ROCHESTER

How deaf¹ people view themselves differs from how hearing people perceive them. In Plato's dialogue *Theaetetus* (trans. 2007), Socrates argued that knowledge is a *justified true belief*. Contemporary social epistemologists believe that how an individual justifies a belief as "true" depends on that individual's situation, surroundings, prior knowledge, and sociocultural influences. Feminist epistemologists add that the individual's body or biology needs to be taken into consideration when the nature of knowledge is discussed. Societies give individuals the knowledge of how to live in their bodies, how to show capacities unique to one's sex, and how to experience their bodies. Similarly, the way a society interacts with deaf infants, children, and adults has an impact on what these deaf individuals learn and know, and consequently on their attitudes, interests, and values.

The biological experience of a sensory deprivation and the sociocultural experiences of others' reactions and interactions illustrate the different effects of deafness and Deafhood, respectively. The concept of Deafhood was intro-

duced by Ladd (2003), who described it as something different from what is known as Deaf culture. He suggested that Deafhood is "not a 'static' medical condition like 'deafness' . . . instead, it represents a process—the struggle by each Deaf child, Deaf family, and Deaf adult to explain to themselves and each other their own existence in the world" (p. 3). Deafhood and deafness have strong yet separate influences on the deaf individual in and of themselves, as we discuss below.

From the biological viewpoint, deafness alone can enhance certain aspects of an individual's visual attention (see Bavelier, Dye, & Hauser, 2006, for a review). Specifically, deafness causes an individual to allocate more attention to the visual periphery and be more sensitive to motion on the periphery. This effect might be due to deaf individuals' intrinsic need, for survival's sake, to rely on the visual modality more than hearing individuals do. There are other influences that are not effects of deafness but effects of competency in a visual language that enhance some cognitive functions (Bellugi et al., 1990; Emmorey & Kosslyn, 1996). The

simple notion of not being able to hear does not completely define the deaf individual nor explain Deafhood. Deafness begets unique additional experiences for deaf individuals that go beyond auditory sensory input. By virtue of their biology, deaf individuals live their lives in a visual reality, which leads to the acquisition of a knowledge base that is different from that of hearing individuals.

Life in a Visual Reality

Some people place greater value on the sense of audition, while others place more value on the sense of vision (Bahan, 2008). Many deaf parents celebrate and experience feelings of joy when they find out that their newborn is deaf. This is not because of their child's hearing loss, but rather their biological propensity to be more visually oriented. Deaf individuals have been known to seek partners based on their chances of having a deaf child or have sought sperm donors who would increase their chances of having a deaf child. This practice has had an impact on legislation in England, where some have expressed the view that deliberately attempting to create a deaf child is unethical and should be illegal (Bryan, Burke, & Emery, 2008). Some deaf parents become depressed when they find out their child is hearing. The grieving process is similar to what hearing parents experience when they find out their child is deaf (Hauser, Wills, & Isquith, 2005; King, Hauser, & Isquith, 2006).

The knowledge that deaf individuals obtain about themselves and how they should live their lives appears to vary depending on whether they are raised by deaf or hearing parents. Being around deaf adults appears to exert a positive influence on the school readiness and learning of deaf children. Deaf children born to deaf parents who sign (henceforth referred to

as *Deaf of Deaf* in the present article) achieve their (first) language development milestones at the same rate and time as hearing individuals (Newport & Meier, 1985).

Over 95% of all deaf individuals are born into a family and a community that have no experience with how deaf people learn and live, (such individuals are henceforth referred to as *Deaf of Hearing* in the present article). Parents typically socialize with their children intuitively in ways that reflect how they assume their own parents socialized with them. Few hearing parents of deaf children can communicate effectively with their deaf child, and this seems to have an impact on language acquisition and social-cognitive development (Corina & Singleton, in press; Hauser, Lukomski, & Hillman, 2008).

Studies have found that knowing how to use nonverbal cues to direct deaf students' attention is a factor that has an impact on the students' learning and is a skill taught by deaf parents to deaf children (Smith & Ramsey, 2004). Deaf of Deaf children begin their schooling knowing where and when to look for visual information in their environment. Crume and Singleton (2008) observed Deaf of Hearing children requiring more linguistic and physical prompts to attend to their teacher and classmates compared to Deaf of Deaf children. Deaf of Hearing children's eye gaze behavior when they are in fourth grade lags behind the eye gaze behavior of Deaf of Deaf preschool children (Ramsey & Padden, 1998).

Hearing teachers seem to have difficulty taking over the parents' task of preparing Deaf of Hearing children for school or taking advantage of the skills that deaf parents pass on to their deaf children. For example, Erting (1988) observed a hearing teacher and a deaf teacher aide in a preschool

classroom. The hearing teacher often began signing before all the children were paying attention. In contrast, the deaf teacher aide used visual and tactile signals to ensure that all children were visually attending before she started to sign. Similarly, Mather (1989) investigated the eye gaze patterns of a hearing teacher and a deaf teacher and found that only the deaf teacher managed to use eye gaze to direct the children's attention to the person who was speaking. The hearing teacher used inappropriate eye gaze techniques that confused the students as to where to look.

Communication has always been an area discussed in depth when it comes to deaf pedagogy (Hauser & Marschark, 2008). In addition to natural signed languages, there are also many different visual communication systems made available to deaf children including speechreading, cued English, Signed English, and visual phonics. Many teachers of deaf children may not have ample time to develop their fluency and skill in a natural sign language or a visual communication system during their graduate training. When deaf children are taught by individuals who are not proficient visual communicators, it is no surprise that these children do not learn at the same rate as hearing children (Bienvenu, 2008c). Deaf children do not have difficulty learning, as it is often assumed; rather, they are being raised and taught by adults who are ill prepared to communicate with them effectively.

Glickman (2003) pointed out that the use of an interpreter provides an *illusion of inclusion* for deaf clients receiving mental health services. There is an illusion of inclusion in deaf education as well, where the educators and parents believe that deaf children are achieving full access to language. Many research studies show

otherwise. For example, both deaf children and deaf adults typically understand less than 50% of what an individual says through speechreading alone (Commission on Education of the Deaf, 1988). If a hearing adult uses sign in addition to speech (Simultaneous Communication), deaf individuals again typically still understand less than 50% of what is said (Tevenal & Villanueva, 2008). The situation is not much better when educational interpreters are used, as research has shown that they interpret less than 50% of what is said in the classroom (Schick, 2008).

Today, individuals who are born reliant on vision for learning have the opportunity to acquire a natural signed language. Yet medical and speech-language professionals often tell parents not to teach their deaf child a signed language because it would impede the child's language development and independence—a claim that is not based on empirical research (Marschark, 2007). Almost all deaf education systems in the United States, if not all, place a greater value on the acquisition of English than on the acquisition of American Sign Language (ASL). Furthermore, most schools for the deaf do not offer formal sign language classes as a part of the curriculum. Bienvenu (2008b) referred to the cultural valuation of one language over another as “linguisticism.” This neglect of sign language competency contrasts with the experience of hearing students, who undergo rigorous training and evaluation of their language skills in English. The valuation of auditorily based learning and languages over visual learning and languages apparently hinders deaf students' ability to learn.

Incidental Learning and Access to Knowledge

Many Deaf or Hearing children and adults are familiar with the *dinner*

table syndrome—they have experienced years at the dinner table watching close hearing family members and friends converse with each other, but are unable to decipher what is being said. Some deaf individuals also experience this at school if they attend a mainstream program in which there are few if any other deaf individuals. This is especially common during recess and lunchtime. When hearing individuals talk to each other without making their conversation accessible to deaf individuals (whereas a hearing bystander would be able to follow the conversation easily), deaf individuals are deprived of incidental learning opportunities. An enormous amount of incidental learning is lost to deaf individuals, while hearing children and adults have full access to this information. Deaf children who do not have full access to everyday communication often do not see how adults express their thoughts and feelings, how they negotiate disagreements, and how they cope with stressors.

This lack of access and reduction in incidental learning opportunities may have a negative impact on deaf individuals' *physical health* (Mann, Zhou, McKee, & McDermott, 2007), *mental health* (Hindley, Hill, McGuigan, & Kitson, 1994), and *academic achievement* (Traxler, 2000). For example, the rates of presentation for injury in emergency room visits by deaf children have been found to be more than twice those of hearing children, even after adjustments for age, race, sex, and the number of hospital or emergency department visits for treatment of non-injury-related conditions (Mann et al.). Parents typically verbally preinstruct or immediately warn children of dangers as they grow up, and children learn about risks and dangers by being directly instructed or by passively listening to the conversations of others. The absence of incidental

learning about possible dangers may be one cause of the higher rate of injury presentation visits, because deaf children might not be aware of risks and dangers.

In a further illustration of the relationship between improvised communication access and health, the lack of incidental learning at home can also have a negative impact on deaf individuals' knowledge of family history and health literacy. Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions. To get an idea of how this process occurs, imagine a typical Thanksgiving gathering with several family members conversing about family events that may have happened over the past few months. An uncle may mention that he needs to be careful with his food choices since he was told by his doctor that his cholesterol was too high. A grandmother may respond that he needs to be careful since her deceased husband followed a poor diet and eventually succumbed to a heart attack at age 51. While such a conversation may be short, it will be rich in details that likely will be missed by a deaf family member. The deaf individual is therefore less likely to benefit from aggressive screening procedures or interventions since he or she cannot provide a full family health history to his or her physician.

In one survey, 40.4% of deaf individuals were unable to identify a single symptom of heart attack (Margellos-Anast, Estarziou, & Kaufman, 2006), something that 90% of hearing adults in another survey were able to do (Geoff et al., 1998). Similarly, 62.6% of deaf adults were not able to identify one symptom of a stroke, while 70% of hearing adults in another survey could list a symptom (Reeves, Hogan, & Rafferty, 2002). Communication barriers

in the family not only have an impact on cardiovascular knowledge but on other areas of health as well. For example, Swartz (1993) found that 23% of hearing individuals in a study sample learned about sex primarily from their mother, compared to only 2.9% of deaf individuals. Another study found that deaf college students engage in more high-risk sexual behaviors and generally are not as well informed about health and sexuality as their hearing peers (Joseph, Sawyer, & Desmond, 1996).

Access to health knowledge is not the only predictor of health-related behaviors. Relationships (attachment) are generally accepted and viewed as an essential component of healthy emotional development in children and emotional maintenance in adults. Attachment style involves the willingness of the individual to explore his or her environment. Likewise, curiosity can be thought of as the interest of an individual in seeking out new information from his or her environment. People with secure attachment styles are likely to incorporate more interest in the environment, as the individual feels secure in exploring, knowing there is a *safe base* to which he or she can return. Those with insecure attachment styles are likely to be less interested in seeking out new information, as the inherent risk-taking involved in curiosity would be increased due to the lack of a feeling of safety. Thus, the cognitive resources are not available to be curious about the environment and to seek out new information. Secure attachment styles are related to an increase in health-enhancing behaviors, and, conversely, insecure attachment styles are linked with participation in fewer health-enhancing behaviors. Attachment style also has been shown to predict anxiety and depression (Feeney & Ryan, 1994).

Steider (2001) found that secure attachments positively predicted greater curiosity and health-enhancing behaviors in an adult sample of deaf individuals. Deaf adults have been reported to be securely attached to other deaf adults and insecurely attached to other hearing adults (McKinnon, 1999). Because of communication difficulties, deaf children and their hearing parents are more likely to have insecure relationships or attachments (Lederberg, 1993). There also appears to be a higher rate of abuse among deaf children (see Dobosh, 2002 for a review), and deaf adults have been found to have more difficulty leaving abusive relationships than their hearing counterparts (Merkin & Smith, 1995).

Living and growing up in a life in which one experiences the dinner table syndrome at home and in school also influences deaf individuals' mental health. Foster (1989) pointed out that many deaf adolescents experience the frustration and pain of isolation at home, in school, and in the neighborhood. A study conducted in the United Kingdom found the prevalence of anxiety disorders to be as high as 50.3% among deaf children and adolescents, with greater prevalence among children in mainstreamed educational settings than those at schools for the deaf (Hindley et al., 1994).

Many deaf individuals struggle to acquire a positive identity or self-concept (Maxwell-McCaw, 2001). Consequently, many of them will not have an opportunity to develop the extensive self-theory that is necessary for a healthy identity until they are exposed to deaf role models. Holcomb (1997) stated that if one is to achieve a well-founded self-theory, a common language is required for effective and meaningful interactions. A meta-analysis (Bat-Chava, 1993) found three factors to be associated with better and healthier self-

esteem among deaf children and adolescents: (a) parents who have a positive attitude toward deafness; (b) the availability of clear and accessible communication within the home; and (c) identification with others within the Deaf community on the part of the deaf child or adolescent and possession of a rich sense of language and heritage as a member of a vital cultural group.

The impact of Deaf cultural pride is not surprising given that hearing minority individuals who identify with their minority group have higher self-esteem than those who do not. Deaf children seem to be taught at home and at school that their aim should be to become more like hearing people and to repress or inhibit any characteristic that comes naturally to deaf individuals. Deaf individuals who learn this false knowledge can still be liberated with the realization that they are OK. This is the realization of who they really are. It takes some unlearning of false knowledge and reconnecting the dots.

Audism and Cultural Capital

Audism remains a relatively new topic, even though it was first mentioned in the literature more than 30 years ago in an attempt to understand why visually oriented learners struggle to read English (Humphries, 1977; Humphries, Martin, & Coye, 1978). Humphries and colleagues (1978) wrote:

We believe that there are misunderstandings between the deaf and hearing cultures that have blocked the kind of attitude and motivation necessary for any learning, especially language learning, to happen. . . . We feel there is difference in the value that each culture places on English and ASL as a communication system and as a survival tool. We feel that deaf people's attitudes about them-

selves, their self-images, are often so poor that they have contributed to what we see as a “failure syndrome” around the deaf persons’ learning of English. . . . We feel that the problem is related to the interaction between these cultures, not to some innate inability in the deaf person to learn English, not to the deafness per se. (p. 12)

Audism begins with a specific theory of humanness. For example, bodies that hear normally are the prototypical human bodies. In audism, the body is a starting point for social classification. The perception that there is a difference based on the body (i.e., the perceived imperfection of deaf bodies) is a concept common to audism, racism, and sexism (Humphries, 2008). This perception leads to the assumption that deaf bodies are unwanted, inferior, and subject to repair. To the extent that deaf people do not hear and do not speak, they are seen as less intelligent, less capable, and less human (Bauman, 2004). Embedded within cultural practices and coded into social and cultural institutions, audism often appears in the form of treatments, therapies, and interventions connected to a psychology of deficit (Lane, 1992). Economic effects (workplace discrimination, class struggle, undereducation, and underutilization) are a legacy of audism in Great Britain as well as the United States (Turner, 2007). Yet perhaps the most salient impact of audism today is that identities have been brought into question among deaf people. The struggle of deaf people to maintain a sense of identity in the face of others’ definition of them has created uncertainty among deaf people about their own linguistic, cultural, and social identities. Thus, a final defining characteristic of audism is that people are turned against themselves as they in-

ternalize this dominating ideology of others (Humphries, 2008).

African American mothers help their hearing (Pinderhuges, 1995) and deaf (Borum, 2007) children develop resiliency, resistance, or tolerance in the face of racism. It is not clear how much deaf children learn about resisting or coping with audism from their hearing parents. Resilience is the ability to thrive under adversity and is a strong predictor of recovery from difficult situations. Thew (2007) found that deaf employees working in hearing environments who attended a school for the deaf have stronger resilience abilities than students who attended mainstream programs with or without support services. Deaf individuals appear to provide younger deaf individuals resistant capital to help them cope with audism and navigate an auditorily oriented world. The need for resistant and navigational capital is not limited to deaf signers but is also relevant to oral individuals, hard of hearing individuals, and individuals who use cochlear implants, as they all are subject to stereotyping and audism.

Additionally, deaf individuals do not have as much access to the knowledge or cultural capital of the hearing community, just as people of color do not have as much access to White cultural capital (see Yosso, 2005, on cultural capital). Deaf individuals born to hearing parents often do not have access to their parents’ capital as much as their hearing peers have access to their parents’ capital. Even with access, the capital that a deaf child might receive from parents would teach that child how to live in the world as a hearing individual or a *less than* individual, not as a visually oriented individual. Regardless of how hearing individuals try to mold deaf individuals into *bearing* deaf individuals, deaf individuals remain intuitively

different. A parallel experience is assumed to occur among gay, lesbian, bisexual, or transgender children who are raised by heterosexual parents and taught by heterosexual teachers (Biennu, 2008a). With relevance to Deaf epistemology, the individual’s episteme, or personal paradigm of life, is shaped by the effects of his or her life and body.

Conclusion

Society is made up primarily of hearing individuals who define how deaf people are to live, express or inhibit their capabilities, and experience their bodies. If deaf individuals want to experience life as deaf individuals or visually oriented beings, this means they must diverge from the hearing ideology. In this line of thought, audism is the imposition of hearing ideology on deaf individuals. Deaf epistemology cannot be comprehended without the recognition of the pervasiveness of audism and the impact it has on deaf individuals. Deaf epistemology should be the lens through which auditory learners seek to expand their understanding of visual learners, in order, ultimately, to enhance learning and strive to create environments that value visual beings as much as auditory beings—environments that, in other words, embrace Deafhood and deafness as much as they embrace *bearinghood* and *bearingness*.

We recognize that most hearing parents only begin learning about deafness and Deafhood after they have learned that their child is deaf. Anytime there is a sense of unfamiliarity about their child, parents may respond with fear or uncertainty. Hearing parents with a new deaf child are seeking reassurance and guidance from the educational and medical communities. If the focus on deafness is negative, the parents will have a sense of guilt that their child is *abnor-*

mal or even view their child as a failure, which allows audism to begin.

Deafness should then be viewed in regard to the entire scope of the individual, not merely as a medical condition. A focus not on the deficit but on the difference (e.g., visual orientation vs. auditory orientation) would likely result in better outcomes. Through failure to acknowledge the Deaf episteme, important strategies to achieve a healthy educational and social environment for the deaf child may be ignored or lost. The overall intentions of educational and medical professionals should be focused on the promotion of a healthy, well-adjusted deaf child rather than on correction of the audition (which, historically, has had mixed results at best in the promotion of the health and well-being of deaf people). Educational and medical professionals, as well as the family, must concern themselves with the child's strengths if the child is to achieve full potential. With greater awareness of Deaf epistemology, a better collaboration among the different communities—medical, educational, and social—can occur, allowing hearing parents to be fully informed about how best to raise their deaf child. Through acknowledgment that society is heterogeneous, each member is valued, and there is no one style that fits all, the wall of audism can be slowly torn down.

Through research in education, health, and science, a joint effort toward a natural visual-learning environment that will be amenable to the deaf child's learning processes can be achieved. This is possible if researchers remove their biases of hearing ideology, realize that there are multiple epistemologies, and study how deaf individuals truly develop and navigate the world as well as the indigenous knowledge passed on to deaf children by deaf adults. By incorporating deaf

individuals as important players (e.g., advisers or role models) in the molding of deaf children, hearing parents and teachers can learn some of the indigenous knowledge and experiences that deaf individuals share. If deaf individuals are recognized as full members of society, inroads can finally be made toward reducing some of the educational and health disparities they struggle with in a hearing-dominant society.

Acknowledgments

The work for the present article was partially funded by National Science Foundation Grant No. SBE-0541953 and National Institutes of Health Grant No. NCD004418-06A1 to Peter Hauser; Centers for Disease Control and Prevention Grant No. 1-U48-DP-000031 and U.S. Department of Education Grant No. NIDRR H133A031105 to Amanda O'Hearn; and National Institutes of Health Grant No. NHLBI 5-T32-HL-007937 to Michael McKee.

Special thanks to Dr. Kim Dodge, Karen Finch, Dr. Shilpa Hanumantha, Tara Hillman, Jason Listman, and Dr. Jennifer Lukomski for reviewing earlier drafts of this manuscript, and to Dr. Tom Humphries for sharing his description of the definition of audism.

Note

1. *Deaf* is defined more broadly than usual here, but with some limits. In general, we are referring to individuals who have been deaf or hard of hearing all or most of their lives and for whom auditory channels are not sufficient for meaningful, accessible communication. Much of the discussion might not be relevant to those who have not been deaf or hard of hearing all of their lives or those with mild hearing loss. Also, much of what is discussed here is specifically relevant to visually oriented communities that have strong social networks of

deaf peers and other individuals fluent in a visual language.

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