

Re-inventing the Future: From deaf education to Deaf-Gain Education

H-Dirksen L. Bauman,
Ph.D Department of ASL and Deaf Studies Gallaudet University

This presentation asks the audience to take a moment and reflect on the meanings commonly associated with the term, “deaf.” What frames of reference have we used to see deafness and Deaf people? Is there more to “deafness” than “hearing loss”? What if deaf education were to shift its attention away from what deaf people do not have, and instead shine light and attention on what they do have? What if we were to draw attention to the cognitive, creative and cultural contributions to human diversity that arise when deaf communities flourish? The significance of such questioning comes from the fact that the frames educators use to see deaf people have everything to do with how they teach Deaf people. After two and a half centuries of controversy and rancor over approaches to deaf education, most deaf people throughout the world remain poorly educated, with all of the economic consequences this entails. As we move further into the 21st century, we urgently need to re-think deaf education. In so doing we must wonder if we have really exhausted all possible means to engage deaf students. Have we already imagined all the ways in which deaf education may be transformed in the 21st century?

By stepping back from particular arguments on the best practices of deaf education, we may see how the very frames used to define „deaf have influenced deaf education since its inception. In contrast to the historically dominant frame of normalcy, this presentation asks the reader to re-imagine the untapped potential of deaf education that magnifies the attributes of deaf people—not *in spite of* their deafness, but *because of* it. In other words, this essay asks us to consider the difference between deaf education as we have known it, and a deaf-gain education as we can imagine it.

Instead of being defined by hearing loss, deaf people often experience the fullness of their lives through their unique perceptual, linguistic, and social ways of being in the world. When seen through the frame of human diversity rather than normalcy, deafness is not defined as loss, but as an expression of human variation that results in bringing to the fore specific cognitive, creative, and cultural gains that have been overlooked within a hearing-centered orientation. In this new frame, hearing loss gives way to “deaf-gain” (Bauman and Murray 2010). Same person—different frames.

Deaf-gain calls attention to the ways in which the visual, spatial, and kinesthetic structures of deaf epistemologies may provide insights into the ways of knowing that are advantageous for all humans, regardless of hearing capacity.

As such, a deaf-gain education aligns with the increasing recognition of “multiple intelligences.” Originally described by Howard Gardner in his *Frames of Mind: The Theory of Multiple Intelligences*, the theory of multiple intelligences is predicated on the notion that “intelligence,” as it has been measured by IQ tests, is based on too narrow a bandwidth

of human knowing. “The problem,” Gardner writes, “lies less in the technology of testing, than in the ways in which we customarily think about the intellect and in our ingrained views of intelligence. Only if we expand and reformulate our view of what counts as human intellect will we be able to devise more appropriate ways of assessing it and more effective ways of educating it” (4, 1993).

This presentation will explore the particular aspects of a Deaf gain intelligence that then lead toward potential Deaf gain economic sustainability for the Deaf community.

COGNITIVE DIVERSITY AND DEAF-GAIN EDUCATION: VISUAL-GESTURAL INTELLIGENCE

Visual-Spatial Intelligence

Visual-Spatial Intelligence “involves sensitivity to color, line, shape, form, space, and the relationships that exist between these elements. It includes the capacity to visualize, to graphically represent visual or spatial ideas, and to orient oneself appropriately in a spatial matrix” (Armstrong, *Multiple Intelligences*, 2). If this were the sole measure of intelligence, deaf people would be likely populate accelerated classes.

To be clear, deaf people do not see any better than anyone else. What they do with what they see, however, pushes the boundaries on traditional, hearing practices of seeing. The link between enhanced visuospatial abilities and use of sign languages has been documented in studies of speed in generating mental images (Emmorey, Kosslyn, & Bellugi, 1993; Emmorey & Kosslyn, 1996), mental rotation skills (Emmorey, Klima, & Hickok et al., 1998), increased facial recognition skills (Bettger, Emmorey, McCullough, & Bellugi, 1997); increased peripheral recognition skills (Bavelier et al., 2000) and increased spatial cognition (Bellugi et al., 1989). These scientific studies are a small sampling of the preponderance of research into the plasticity of the mind and its perceptual abilities brought to the fore by the visual aptitudes of deaf signers.

What science now confirms, deaf people have known all along. In his 1910 Presidential Address to the National Association of the Deaf, George Veditz observed the importance of seeing the deaf as visually-centered people: “for the deaf are what their schooling make them more than any other class of humans. They are facing not a theory but a condition, for they are first, last, and all the time the people of the eye” (22). Seven decades later, Ben Bahan (1989) suggested that deaf people shift from referring to themselves as deaf, and instead call themselves “seeing people.” Bahan goes further in his essay, “Upon

the Formation of a Visual Variety of the Human Race” (2008) to describe the many ways that deaf people push the boundaries of visual practices through their linguistic and cultural practices.

The benefits of exploring visual intelligence may be far reaching, for as William Stokoe (2001) recognized, “vision may have an advantage, for it is neurologically a richer and more complex physiological system than hearing. Sight makes use of much more of the brain’s capacity than does hearing” (20). As testimony to the promises of the field of visual language and visual learning, the National Science Foundation recently funded a Science of Learning Center to “gain a greater understanding of the biological, cognitive, linguistic, sociocultural, and pedagogical conditions that influence the acquisition of language and knowledge through the visual modality” (<http://v12.gallaudet.edu/>).

Research into visual intelligence is becoming more important as we live in an increasingly visual world. We have come a long way from our beginnings as an oral culture: from the invention of writing to the television and internet, there has been an asymptotic rise in the proliferation of visual images. In a time when we are struggling to keep up with the demands placed on our visual processing, it would make sense to seek greater understanding from those among us who demonstrate the greatest degree of visual literacy. A deaf-gain education would see this visual orientation, not only as a prime modality for developing language and intelligence, but as a possible area where deaf people could contribute their insights on sight to the rest of the world.

Yet, for all the attention heaved upon it, visual intelligence is only part of the story of Deaf-Gain.

Gestural Intelligence

When Howard Gardner parsed out seven types of intelligence, he recognized that these were tentative suggestions, and that new intelligences may be identified and verified. Understandably, Gardner made clear distinctions between linguistic intelligence and bodily-kinesthetic intelligence. When using sign language, however, a stronger relationship emerges between these two frames of mind, what may be referred to as “gestural intelligence.” Indeed, the reawakening of the vital role that gesture plays in language acquisition, memory and retention was brought to the fore though the recognition of the full linguistic nature of signed languages. While most studies of intelligence focus on the brain, we forget the intelligence of the hand. Frank Wilson’s remarkable book, *The Hand: How Its Use Shapes the Brain, Language, and Human Culture* (1998) demonstrates the profound role that the hand has played in evolutionary development of the brain. “I would argue,” Wilson writes, “that any theory of human intelligence which ignores the interdependence of hand and brain function, the historic origins of that relationship, or the impact of that history on developmental dynamics in modern humans, is grossly misleading and sterile” (7). In light of this understanding,

an education which discourages gesture as a tool for learning would also be misleading and sterile.

Susan Goldin-Meadow and her colleagues have produced substantial research on the role that gesture plays in the development of concepts. In several studies, Goldin-Meadow encourages students to gesture when working out new concepts. In one study, Cook, Mitchell and Goldin-Meadow “found that requiring children to gesture while learning the new concept helped them retain the knowledge they had gained during instruction. In contrast, requiring children to speak, but not gesture, while learning the concept had no effect on solidifying learning” (Cook, Mitchell, Goldin-Meadow 2008). This leads the researchers to determine that “Gesturing can thus play a causal role in learning, perhaps by giving learners an alternative, embodied way of representing new ideas. We may be able to improve children’s learning just by encouraging them to move their hands.” With the preponderance of evidence that gesturing facilitates the development of intelligence, what could possibly be stopping deaf education from not only optimizing this form of learning, but from being at the forefront of pedagogical innovations, raising gestural literacy to another level of sophistication?

If emerging gestures of hearing children provides a boost to learning, sign language’s fully developed syntax may provide a rocket-boost. Imagine, for example, how precise an ASL-fluent biology professor would describe the process of cell mitosis, using ASL’s rich classifier system to indicate pairs of chromosomes splitting and cell walls dividing. Signing students fortunate enough to have a fluent teacher have the benefit of witnessing a fully linguistic three-dimensional map in motion of a physical process. Moreover, when signing students ask and answer questions in class, they do so using a visual display of their thoughts through sign language. With such an outer display of the inner thought, teachers can spy directly into the organization of ideas in student’s thinking. Conversely, the students may be privy to mental representations of the developed mind of the teacher.

In this respect, audiological deafness becomes a moot point in deaf education; instead, we may envision a „deaf-gain education that would attract anyone interested in optimizing the visual-gestural modalities of learning. This frame of mind allows us to envision a “bilingual visual learning environment [that] could be so rich in processing information in multiple channels that hearing parents would want their hearing children to go to sign language schools” (Murray and Bauman, 2010). The dual language concept based on deaf-gain would suggest a “post-deaf” education in which the focus is on multiple intelligences accentuated by deaf epistemologies.

Applied Deaf Gain Education: Toward Economic Sustainability of the Deaf Community

The unique aptitudes of Deaf individuals may be of great use in a large number of professions which require skills in visual, spatial, gestural intelligences. Deaf

children may be encouraged to develop their skills in architecture, for example, where thinking in three dimensions is an essential skill. The growing recognition of Deaf Space as a field within architecture and city planning may open doors to future generations of Deaf architects. Also, other aptitudes within the realm of visual media production are especially sought after—including video gaming design, graphic design, filmmaking, and web design. Further, the frontier of gestural interfaces is a lucrative area in which sign languages may offer a level of sophistication that rudimentary gesture does not.

The list of potential jobs in an increasingly visual, tactile world could go on and on. The potential of a Deaf gain economy only strengthens the argument that a traditional view of deaf education as “special education” desperately needs to be replaced with a Deaf-Gain education which takes advantage of the cognitive, cultural, and creative diversity that arises as a result of Deaf ways of being in the world.