

# Reframing The Future Of Deaf Education: From Hearing Loss To Deaf-gain



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## **Reframing the Future of Deaf Education: From Hearing Loss to Deaf-Gain<sup>1</sup>**

H-Dirksen L. Bauman, PhD  
Gallaudet University

### **Introduction**

“This deafness had been of great advantage to me in various ways” (42).

---Thomas Edison (Collins and Gitelman)

This essay asks readers 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

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move further into the 21<sup>st</sup> 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 21<sup>st</sup> century?

The first step toward such a rethinking of the direction of deaf education is to consider the very foundations on which deaf education has been built. Before we can imagine methodologies and outcomes, we must step back and examine the notion of framing in deaf education. Like a picture frame, frames of mind keep in certain associations and keep out others; like a house's frame, they lend a particular structure to the whole, and often require immense work to add-on. In what follows, this essay suggests that we do not build an addition on the existing frame that houses much of deaf education, but to imagine a new structure altogether, facing an entirely different direction.

### **Framing:**

**What you see is what you get**



Is the glass half empty or half full? This common expression provides a means of describing two different perspectives on life: Those more inclined to pessimism focus on what is *not* there, while those inclined toward optimism focus on what *is* there. Same

glass of water, two different frames of reference. This popular saying points toward what we frequently overlook—that our perspectives, beliefs and interpretations of everyday experience are influenced by the frames through which we perceive the world (Goffman, 1986; Lakoff, 2004). These ways of seeing, or frames, are so imbedded in our lives that we often do not recognize how they shape our perceptions. As a case in point: if we step back from the “half-full” and “half-empty” expression, we may see that another layer of framing is operating: that is, how we conceive of “emptiness” and “fullness” in the first place. A glass may be empty of liquid, yet it is completely full of air. If it is water that we value, then that is what we notice. Yet, if we value air—not an outlandish claim as our lives depend on it every second of the day—then “empty” may be seen as “full.” Indeed, the meaning we assign to the various aspects of our lives and work often depend on what the dominant frame encourages us to see.

While the example of the half-full/half-empty glass may be seen as frivolous, the point here is simply to call attention to the ways that framing has a profound impact on how we see the world, including the relative worth of various ways of being human. Consider, for example the ways in which women have been framed throughout history as “the weaker sex,” a particular perspective that became “scientifically verified” through much of 19<sup>th</sup> and 20<sup>th</sup> century medical and biological research. Yet, if one were to measure relative strength according to the ability to develop and sustain another human life over a period of nine months, a very different interpretation of “the weaker sex” results. Anyone who has witnessed childbirth will confirm that there is nothing weak about moving a six to eleven pound object through one’s body. Same gender, two different frames of reference. When biology and reframing for greater social justice

combine, we have what Mary Carlson of the Harvard Medical School refers to as “liberation biology” (Angiers, xv).

Such efforts at reframing social identities is of particular importance in the system of public education. If women are seen as inherently inferior in fields of math and science, as Lawrence Summers, the late President of Harvard University suggested, this bias on the part of educators has impact on actual academic performance (Owens, Smothers and Love, 2003). Once teachers, parents, and the students themselves don’t see women as less capable, very different conclusions may take place within education. Like liberation biologists, educators can work toward a more equitable model of instruction that liberates teachers and students from a deficit model, and instead lavish attention, methodologies and learning opportunities on the unique ways of knowing exhibited by all students.

Yet, while the research on gender bias has reached a wider audience through popular media, the frame of “disability” as an inherent lack and disadvantage remains largely unquestioned. It is particularly difficult to imagine disability as anything other than negative when the word itself articulates the frame: dis-ability. Take one step back from this interpretation, though, and we see that disability only makes sense within the larger frame of *normalcy*. As Lennard Davis has shown, the concept of normalcy has a particular history (1995). The word “normal” first appeared in the English language in the middle of the 19<sup>th</sup> century, emerging out of the field of statistics; it then became an organizing principle that provided the means of measuring standards of human biology and behavior during the last half of the 19<sup>th</sup> century. Today, the notion of the norm is so pervasive we are hardly aware the extent to which we live in a world saturated with

norms. Before we are born, we are measured according to norms of weight, height, and continue to be measured against norms of intelligence, income, and human abilities throughout our lives. Along with medicine, the field of education performs daily, if not hourly, norming practices through constant assessment, ranking, punishing, and rewarding.

Granted, such persistent measurement does provide useful information, such as determining appropriate educational placement and relative degrees of health and wealth in order to define when social programs may provide services. Infant hearing screening, for example, is very beneficial for ensuring early exposure to language in its visual forms. But when the frame of normalcy is the predominant lens through which we see people with disabilities, we can only conceive of disability as a problem. As a result, a just society is compelled to fix the problem, either through rehabilitation or elimination. While much of this is intended to improve the life conditions of people with disabilities, the will to cure may not always result in a better quality of life. The will to eliminate disability reached full expression in the widely popular eugenics movement which emerged in the late 19<sup>th</sup> century, and culminated in the T-4 programs of Nazi Germany in which persons with disabilities became the first group targeted for state-sanctioned sterilization and euthanasia (Carlson, 2001).

However, not all persons with a disability desire to be cured. In fact, there is a powerful movement within the autistic community that reframes their “condition” from a problem to a resource. This emerging concept, “neurodiversity,” posits a view that there is no single norm for the properly functioning mind, and that the diverse ways of perceiving and knowing the world provide insights and new capabilities. As Harvey

Blume writes, “Neurodiversity may be every bit as crucial for the human race as biodiversity is for life in general. Who can say what form of wiring will prove best at any given moment? Cybernetics and computer culture, for example, may favor a somewhat autistic cast of mind” (1998). As a result, search for cures to autism and other ways of knowing may be well intentioned, but may have the consequence of leading, ironically, to a state of lesser diversity and weakened body of knowledge overall. “In the new model,” Thomas Armstrong writes, “there is no norm. Rather, the neurodiversity-based educator will have a deep respect for each child's differences and seek ways to bring together an optimal joining of nature and nurture, finding the best ecological niche for each child where his assets are maximized and his debits are minimized.” In contrast to the frame of normalcy, the frame of neurodiversity offers a new perspective on the worth of people with disabilities, and in the process, redefine the outcomes, methodologies and purpose of special education that values difference over sameness, uniqueness over conformity. In this view all individuals—deaf, hearing, Caucasian, Asian, short, tall, autistic, cerebral palsied, temporarily-abled, gay, straight, rich, poor—are equally full expressions of the human character. They are all varieties that provide for a host of new insights, perspectives, and experiences they bring to humanity.

By calling attention to the frame of diversity, we must be careful not to romanticize disability. People’s lives are profoundly affected in many ways that are not positive, often including physical pain, unemployment, limited access to education, transportation, and other basics for a quality life. Who, after all, would intentionally seek to disable themselves in order to experience the benefits that would ensue? The point here, however, is that disability affects different people at different points in their lives in

different ways. While the most common assumption is that disability is a profoundly negative, even tragic condition, there are a host of ways that disability reveals hidden capabilities and unearths new perspectives on human potential. These experiences should not be overlooked, and should be mined for insights in how to better optimize the once dormant human resources to create a positive educational experience.

Indeed, disability often reminds us of the stunning human capacity for adaptation. This is a powerful lesson, for as Charles Darwin noted, survival of a species depends on its ability to adapt to environments. Herein lies a key instance of reframing: While many social theorists of the late 19<sup>th</sup> century popularized the notion of “survival of the fittest” to justify the elimination of the weaker segment of the human race, evolutionary theory holds that the ability to adapt is the real key to survival. Persons with disabilities, more than any others, have demonstrated the human mind and body are imminently more flexible and dynamic than we often imagined. Just as liberation biologists have redefined a more equitable notion of gender, we can reconsider our common assumptions of “fitness” as the skill of using the broad spectrum of human abilities.

A significant case in point is the insight into the human mind and capacity for language brought about by Deaf people and sign language linguistics. For centuries the common wisdom was that ability to develop a natural human language required the input of speech sounds. However, after nearly 50 years of linguistic research, we now know that the human mind is just as hard-wired to develop a signed as a spoken language. No longer is the mind tied to one type of input for language, but rather we know that the design of the mind is one of flexibility, what researchers refer to as “neuroplasticity” (Petitto et. al., 2000). This revelation brought about by deaf

communities and sign language research is clear instance where what is commonly assumed to be a disability reveals an overlooked human ability. This revelation is on the scale of other longstanding human misunderstandings: just as we once believed the earth was flat and at the center of the universe, we believed that speech was an essential element of language. Now we know better. Now we know that the brain is designed to produce language—regardless of modality. As Dr. Laura-Ann Petitto notes, there is nothing special about speech. Language can take the form of speech but it does not have to; language can just as easily take the form of visual signs. The historic misunderstanding of language: “the human brain does not discriminate between the hands and the tongue...people do” (Petitto 2009).

The widely popular business of “baby signing” results from the discovery of what has been there all along—the boost to cognitive, social and psychological development that occurs when the brain’s capacity for language is stimulated through the visual-gestural channel (Goodwyn, Acredolo, and Brown, 2000). Not only are parents of infants flocking toward sign language, but high-school and college students are becoming increasingly interested in American Sign Language (ASL) as a foreign language. Currently, ASL is the fourth most taught language in colleges and universities (Furman, Goldberg, and Lusin, 2007). The irony, of course, is that while hearing parents and their children are encouraged to take advantage of the visual gestural channel for language, parents with deaf children are frequently discouraged from tapping the same human resource.

Those who discourage deaf children from optimizing the full spectrum of the human language ability often do so in the belief that if deaf children learn to sign, they

will not learn to speak and hear. Ironically, those who hold this perspective admit that “if the sense of hearing is impaired, the brain will begin to rely on vision for communication. It is easier and more available than the impaired sense of hearing”

(<http://www.helenbeebe.org/faq.htm#D>). If visual language is more available, why not use this more plentiful resource? The Helen Beebe Speech and Hearing center, which advocates Auditory Verbal Therapy answers this question: “The use of sign language only impedes this development and makes it less likely that the brain will rely on an auditory signal for information about language”. Given what we now know about the cognitive, social and psychological benefits of utilizing the full human potential of language, it seems indefensible at best to discourage deaf students from an education saturated in all available channels of language processing. Now that we know that *to sign is human*, it follows that *to deny sign is inhumane*.

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 essay 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.

### **From Hearing Loss to Deaf Gain**

Now we can appreciate the important role that framing plays in deaf education.

When seen through the frame of normalcy, deafness can only be imagined as a loss. As a result, deaf people can only be seen as being at a loss of normal human communication, unless they are rehabilitated or cured. Institutions of medicine and education have long sought to fix the conditions of hearing loss through pedagogies and procedures of normalization—from speech and hearing rehabilitation to surgical procedures, and even more recently, to genetic testing that provides parents with the options of avoiding the birth of deaf children altogether (Bauman and Murray, forthcoming, 2010). The common sense notion that deafness is a condition that must be fixed, however, is often at odds with the life experiences of those closest to deafness, Deaf people themselves. (Lane, Hoffmeister, and Bahan 1996).

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 forthcoming 2010). Same person—different frames.

Deaf-gain calls attention to the ways in which the visual, spatial, and kinesthetic structures of deaf epistemologies (i.e. ways of knowing) 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). In order to expand the notion of human intelligence, Gardner identifies other frames of mind which lead toward different intellectual types: 1) Linguistic Intelligence; 2) Logical-Mathematical Intelligence, 3) Visual-Spatial Intelligence; 4) Bodily-Kinesthetic Intelligence; 5) Musical Intelligence; 6) Interpersonal Intelligence and 7) Intrapersonal Intelligence. As the strongest aspect of intelligence within deaf-gain may be Visual-Spatial Intelligence, this essay begins discussion of specific characteristics of deaf-gain with this domain.

### **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://vl2.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 through 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 students’ 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, forthcoming 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.

## **Creative Diversity and Deaf-Gain:**

### **Film and Architecture**

The ability to even imagine such an orientation of deaf education for the 21<sup>st</sup> century is made possible by looking through new frames of mind. Even if the frame of diversity could liberate deaf education from hearing loss, parents will still want to know—how will a deaf-gain education prepare their children for success in a hearing world? In order to answer this point, this essay will inquire into a few domains which would be particularly suited for the acute aptitudes of deaf people. Not only would deaf people themselves gain from being trained in highly creative and influential careers, but the fields themselves would gain from being infused with deaf perspectives. While there are large numbers of professions which would benefit from deaf-gain orientations, this essay will discuss two—film and architecture.

#### *Film*

The first area of exploration of deaf-gain professions begins with the deep structural similarities between two languages of moving images—sign language and film language (Bauman 2006; Bahan 2006). In his early writing, William Stokoe recognized the inherent cinematic qualities in sign languages:

In a signed language . . . narrative is no longer linear and prosaic. Instead the essence of sign language is to cut from a normal view to a close-up to a distant shot to a close-up again, and so on, even including flashback and flash-forward

scenes, exactly as a movie editor works. . . .Not only is signing itself arranged more like edited film than like written narration, but also each signer is placed very much as a camera; the field of vision and angle of view are directed but variable. (Quoted in Sacks 1990).

Given such an intimate, cognitive relationship with cinematic grammar, we must wonder what innovations might emerge if we were to invest in the cinematic education of the next generation of deaf children. Introducing students to fundamentals of shooting, editing and presenting video, provides additional means of composing ideas, developing skills in visual rhetoric, inspiring reasons to compose language. Offering film as one means of composing thought and communicating ideas for an audience could only lead to a wider notion of communication, literacy and the visual technology of composition.

Within the range of cinematic genres and techniques, perhaps the closest to sign languages would be animation. Animation and signed languages are less constrained by time and space than traditional film. To be convinced of this point, one only need to witness Ella Mae Lentz signing the Roadrunner as he runs off a cliff and finds himself suspended in mid-air. Collaboration of sign language and animation is not only interesting from a poetic and artistic viewpoint, but the benefits could be a gain for visual pedagogy as well. Animation could be superimposed, for example, on the teacher explaining the process of cell mitosis. While the lecture is happening, the viewer may watch the process unfold before their eyes. Such visual representations would be of great service to all learners, and could even be voiced for hearing students, so that they may experience what deaf children already have—a language powerful in its ability to re-create and re-shape the reality they see around them.

The areas in which deaf-gain may be registered may be used both as a means of increasing learning, but also of potential areas for deaf-people to bring something unique to professional careers. A deaf-gain frame of mind can envision the day when film companies would actively seek out a deaf cameraperson, or editor, because of their fluency in the languages of moving images. In fact, one could go further to see deaf/signing run film programs and that would attract hearing people eager to learn the trades from a deaf-gain perspective.

### *Architecture and DeafSpace*

The notion of “DeafSpace” has become short hand for the study and design of living environments that are optimal for deaf and signing individuals. But the implications extend beyond notions of accessibility usually found in Universal Design principles. “The basic precept is that design that is DeafSpace principles and their sensitivity to the visual, tactile dimensions of space may create good buildings for everyone, regardless of audiological status” (Bauman and Murray, forthcoming 2010). Indeed, the notion of DeafSpace encourages us to wonder what the built environment would look like had it been designed by deaf/signing designers. Clearly, tables would not be rectangular as we commonly experience today, but circular. The social dynamic of sitting in a circle versus a rectangle has far reaching implications for social behavior and access. In a circle, everyone is invited into a communal conversation if they so wish. Often, the rectangular setting limits conversation to those one either side or across the table. The cultural default setting of table design may seem like an insignificant point; yet if we consider the nearly mythical status that the table has in our society—where

families and friends break bread together—the nature of access and social relations cannot be underestimated. Indeed, if the design of these tables were circular, the distribution of power would also change from a hierarchical relationship—i.e., Father at the head, Mother at the foot—toward a more equal setting, where all members have the same access to participate. That is, DeafSpace encourages a design where everyone has a place at the table.

The tendency toward circularity is a microcosm of the larger design principles that would radiate from deaf perceptual habits. In deaf classrooms, chair arrangement is always circular, encouraging a sense of community and equality, rather than rows, which accentuate the distinct individual. Rooms, buildings and urban landscapes would also be less square and rectangular and move toward a more curvilinear design. The first DeafSpace Workshop in 2005 at Gallaudet University, lead by architect Hansel Bauman, resulted in the revelation that five groups working separately from each other ended up with profoundly similar design principles—a curvilinear, organic aesthetic, rather than an angular and rectangular design. Since this initial workshop Gallaudet has conducted research into Deaf Space principles that are being collected and published in the *Deaf Space Design Guide* (Hansel Bauman, forthcoming).

Given that DeafSpace principles—sensitivity to the qualities of light, visual access, and overall building texture—are principles of good design, we can imagine educational programs that foster these skills. Just as film companies would seek out deaf filmmakers, architectural firms would ensure that a deaf-eye has been cast upon all designs to ensure the lighting and composition that fosters connection to others and to the environment.

The examples of film and architecture are only two examples of a host of possibilities, including many careers in the visual display of information, from educational technology to graphic design. The larger point is that a frame of mind that recognizes the contributions of deaf-gain would have clear economic benefits, the result of which is increased quality of life, creativity and productivity of deaf citizens.

### **Cultural Diversity and Deaf-Gain:**

#### **Connecting to Community**

So far, this essay has called attention to deaf-gain aptitudes for visual-gestural intelligence and possible economic benefits that could result from rewarding deaf-gain careers. However, education is about more than preparation of students for productive employment. A deaf-gain education would be mindful of the whole-person gain that comes from membership in a deaf community.

Within the frame of normalcy, deaf people are often thought of as being isolated. Anyone who has spent time in the deaf-world quickly realizes that quite the opposite is true. A more accurate view is that the intersubjective, collectivist and transnational patterns of deaf people often lead toward a deep sense of belonging. This is a particularly powerful and important gain, as current research indicates the diminishing sense of community and civic engagement (McPherson, Smith-Lovin, & Brashears, 2006). In *Bowling Alone: The Collapse and Revival of American Community*, Robert Putnam points to the factors of media, suburban living patterns, work, and family structures have contributed to this decline. While it is true that the demise of deaf clubs (Padden 2008)

are symptomatic of his decline, there is an enduring sense of strong connection between deaf individuals that comes from a lifetime of literally “seeing eye to eye.” This is significant, for as research has demonstrated, eye contact is an important element in building strong, intimate relationships, especially in parent/child/infant relations (Reid and Striano 2005).

One study is currently underway that explores these far reaching implications for the visual, intersubjective practices of deaf ways of being. Robert Sirvage examines the nature of the “deaf walk” as opposed to the “hearing walk” (Sirvage, forthcoming). Hearing individuals may walk and talk in any configuration possible, as long as they can hear each other speak. Hikers, for example, may walk single file and still communicate. The same is not true, however, for signing walkers. They must be within the range of vision in order to communicate. Carrying on a visual conversation while navigating through the environment requires that each signer watch out for the other’s well-being, in case there are objects that may be in the way. This seemingly minor activity has implications about the deeply reciprocal nature of deaf relationships. It is a deaf cultural norm for each person to entrust the other with their well-being. This daily practice results in a lifetime of “you watch out for me and I’ll watch out for you.”

As such, the deaf walk resonates at the deepest roots of what it means to be a person. As Kenneth Smitz (1998) has explained, the Greek root of the word person, *prosopon* “placed the emphasis upon a direct face-to-face visual encounter (*pro-*, *ops-*, *on*: to see and be seen), so that the highly charged aspect of intimacy came to the fore (in the I-thou relation). For this reason, the term was associated with the human face, which, as Aristotle tells us, is more than a physiological structure insofar as it is the expressive

bearer of a distinctive inner (i.e., personal) meaning.” In this light, the very process of becoming a person happens in the presence of the other, a fact that the face-to-face orientation of deaf ways of being bring to the fore.

Indeed, this frame allows us to see that the deaf cultural practice of visual reciprocity is a far cry from the social isolation imagined by most hearing people. In fact, this myth of isolation becomes exposed even further when we shed light on the intensely transnational nature of deaf cultural affiliations. As Joseph Murray has shown (2008), deaf people have been developing transnational ties and identities since the 19<sup>th</sup> century. In international gatherings, such as the Deaf Olympics, a deep sense of connection occurs among deaf people from all national backgrounds (Brievik, Haualand, & Solvang 2002) . When compared to hearing individuals who confront individuals across language barriers, deaf people are much more apt to be able to communicate using a visual gestural medium. While there are distinct sign languages throughout the world, International Sign Language has developed to facilitate communication in these international deaf context.

Again, there are pedagogical and economic implications of the cultural proclivity toward community and transnational communication. This aspect of deaf-gain asks us to imagine a design for intensely collaborative learning projects, and further, to offer travel experiences where deaf people can exercise the visual-gestural roots of communication, and widen their perspectives on ways of being deaf throughout the world. The fields of International Development and sign language planning, for example, can be enriched by training Deaf people to be flexible, dynamic communicators, something that is in great demand in the increasingly globalized 21<sup>st</sup> century.

## Conclusion:

### Reframing the Future of Deaf Education

This essay has asked that readers consider a wider range of possible meanings of the deceptively short but immensely complicated four-letter word: “deaf.” The emerging frame of diversity and deaf-gain asks educators and policy makers to engage in imaginative critical thinking, to ask how we may envision a more liberatory deaf education in which Deaf-gain is seen as humanity’s gain. Echoing the Thomas Armstrong (2007) in his comments about the neurodiversity-based educator, the deaf-gain-based educator “will have a deep respect for each deaf child’s differences and seek ways to bring together an optimal joining of nature and nurture, finding the best ecological niche for each child where his assets are maximized and his debts minimized.” What would such an educational environment look like, from the design of the classroom to the curriculum and the collective approach to learning through the visual/gestural channel of deaf people?

In short, a deaf-gain education calls for pedagogy to be aligned with the advances in neuroscience, which have shown that sign language and spoken language use the very same brain tissue. In other words, sign language is normal, rather than abnormal (Petitto 2009). The implication for educators is particularly important, for it asks us to consider the teaching ethic through which we approach deaf people, and human diversity in general. As Harvard bioethicist Michael Sandel (2008) argues in *The Case Against Perfection*, human diversity teaches us the value of moving from an ethic of *molding* individuals to *beholding* them in their extraordinary rich ways of being. As we move into

the 21<sup>st</sup> century, we may want to consider a more wholistic understanding of the human potential for adaptation, neuroplasticity, and overall diversity in ways of knowing and being in community. If deaf-gain education is to embrace a more robust notion of human diversity, it needs to at least consider the counterintuitive position that all individuals would be enriched by become a bit more deaf. “By that we mean, society would do well to become more acutely aware of the nuances of communication, more engaged with eye contact and tactile relations, more fluent in a language rich in embodied metaphor; more aware of the role of being a member of close-knit communities, and if nothing else, more appreciative of human diversity” (Bauman and Murray forthcoming 2010). In the end, we may see that an educational system which optimizes Deaf-gain would lead to a greater sense of human-gain.

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