



By Julia Weiss



In Downtown Pawtucket off of Route 95 North, Exit 27 if you take a left, go to the third traffic light, take a right onto Main Street and continue on to the second brick building on your left there is an office next to the "Coyle Appraisers" sign in front. No, it's not the Coyle Appraisers, it's just right of them, where there is an enormous, glossy sign announcing that you have indeed reached the "American Sign Language Academy." Behind its' glass door is a beautifully decorated, dimly lit room with possibly every issue of *Deaf Life* magazine on its bookshelves. To the left is a coffee maker, some Styrofoam cups, and other essentials in creating a tasty cup of coffee, with another glossy sign hanging above it proclaiming this space the "ASL Café." Around the corner to the right is a large, black desk, typically occupied by the secretary, covered by loads of paper work. Just a bit further is another bookshelf in the back, which currently contains about twenty pieces of artwork from deaf Vietnamese artists whom Manuel "Manny" Martin, Professor of ASL at several universities including Harvard, owner of the ASL Academy, and my tour guide for today, works with on several occasions when he can make the time to slip away from his many other activities of teaching classrooms and families of the deaf. There is an "Idiots Guide to Music" book that clearly doesn't belong amongst the rest sitting just below the incredible artwork. I sign to him in ASL<sup>1</sup>, "Is this book yours?" He frowns, puts his hand on his hip and signs back, "Are you calling me an idiot?" His laugh is heard along with another's, Roderick Brito, 22, who is fluent in ASL and chats happily with Manny.

Roderick is about 5-foot 7 and has mocha colored skin and long hair that is rubber banded inch by inch, neatly hidden under a do-rag and tucked into the back of his forest green American Eagle sweatshirt, though he motions that it extends all the way down to the middle of his back. Roderick, who was born in Bani, Peravia Province, Dominican Republic and moved to South Providence, not too far from downtown, with his father and his mother soon followed them to Providence. Roderick was hearing in the Dominican Republic, though when he came to America at 3 or 4 years old, his mother noticed that he was rarely speaking or responding to what his family was saying, so she brought him to a doctor who told her that Roderick is deaf. His mother eventually signed him up for classes at Rhode Island School for the Deaf when he was 5 and Roderick remained there until he graduated at 20. Roderick picked up sign language very quickly, learning primarily from books, school and signing with other deaf friends. His immediate

<sup>&</sup>lt;sup>1</sup> Please note that I have substituted any American Sign Language that was communicated to English in this paper for the reader to better understand the dialogue that occurs

family includes his mother, father, sister (age 17) and brother (age 19): they all speak Spanish, and his brother and sister speak English too, but no ASL.

"I can understand them a little," signs Roderick to Manny, who interprets ASL to English for me, and English to ASL for Roderick. "They don't sign, they gesture."

Is that frustrating?

"No, it's fine," signs Roderick. "We check with each other and we just know each other."

Roderick's biggest problem is finding a job. Unlike some deaf people, Roderick doesn't want to live off of his parents and Social Security checks – he wants to support himself and be on his own. Roderick has had several places where he worked in a training program but still has yet to get a paid job, though he is constantly looking. He has worked at Tiffany's, Walgreen's, Amica Insurance, a Spanish market, etc. Though these are not jobs he was able to acquire himself unfortunately. Roderick's father got him the job at Tiffany's and his friends got him the rest of them. One of his friends also brought him to an unemployment agency that will give his resume out to a number of places that are hiring, he's hoping for some success there. Before he graduated from Rhode Island School for the Deaf, an adviser at their career program where they place their students in jobs they know the deaf are able to either communicate with their employers or where there is little communication required.

"The person who is a job coach at Rhode Island School for the Deaf told me they were offering a job," signed Roderick, "but it was cleaning overnight and I didn't want to do that. My mother and brother haven't really helped but my father has taken me a few places."

Do you have a dream job?

"No"

What kind of job do you want?

"Something that's hands on," signed Roderick. "I'm deaf. If there were something that's hands on though – if I could pick something – I would pick carpentry. I would like something like that. Or even something to do with working with cars, welding, painting – something like that."

Do you have any role models?

"Nope," said Roderick, "just my family but no one special other than that."

Who do you look up to?

"I like to watch people who are basketball players," signed Roderick. "But role models, not really. I like Lebron James and the three big guys on Boston but they're not really important to me."

Manny recently told me that you got your license and the DMV gave you a bit of trouble. Can you tell me about that?

"He and I studied together," signed Roderick. "We practiced driving and I got my license. I did it over and over again."

Manny stepped in here, asking Roderick if he could elaborate and Roderick indicated that he could. The real story is that when Roderick was 18 he and Manny would study the rules and learn together every week. Manny taught Roderick what the road signs meant – lanes, crosswalks, sidewalks, etc. At the test Manny interpreted for Roderick's permit but Roderick failed the first time because the paper was still confusing when he went to check the boxes – even with Manny interpreting. The second time was the same story. The third time Manny interpreted and Roderick passed. When Roderick went to take the license test with his Mom the first time, he failed.

Why did you fail?

"The man was there with the paper and I didn't understand what he wanted," signed Roderick. "And he wasn't comfortable with me [driving] anyways so that was why. One time I went with my Mom to Pawtucket then to Warwick and back to Pawtucket who told me that I had to have a doctor sign a paper that said I could drive."

Isn't that illegal?

"Yes," Manny quickly says, clearly annoyed that Roderick had to go through this entire process though it clearly states in the DMV's handbook that deaf people are legally allowed to drive; no doctor's note needed. "It is definitely illegal."

It seems as though nothing could bother Roderick. He tells stories that horrify me, though he tells them as fact, not as if he wants me to feel sorry for him, and I even have to corner him in order to get those stories. He tells one specific story about a hearing person misunderstanding him after I ask three questions to get it out of him. When he answers, it's as if to say, yeah this is what happened, no big deal. He answers each question with precision. Ask Roderick if he has friends and he'll tell you he has lots of friends, both hearing and deaf. Ask Roderick what he wants to do with his life he'll tell you he just wants a job. Ask Roderick if he has any role models and he'll say nope, just my family but no one special other than that. It's not that he's being rude, quite the contrary, he smiles after almost every question waiting politely for the next one. Roderick is simply Roderick, he cuts to the chase, he's not going to complain about situations he's encountered in his life, he's just going to keep on living and keep on trying to get a job and do his best to not rely on other people. But he's still as normal as any other kid his age.

"I like to watch MTV and BET with people like Jay-Z," signed Roderick. "The captions are on so sometimes they will be talking about things like Michael Jackson dying. It affects me when I hear stories like that. Sometimes I get my information from the kids I correspond with. Things like Tupac Shakur dying affect me and make me sad because their music and talent is gone."

Are you sad because they died or because you listen to their music?

"I can feel the music but I can also read the captions and know what the music is about," signs Roderick. "That's why I'm a fan. If you turn the music up really loud I can feel it. If a door slams hard I can hear or feel that."

So you can read English then?

"ASL is my real language," signed Roderick, breathing each time before he signs, speaking with his hands in between each inhale. "With English when I'm reading I can pick up vocabulary but with no one to explain it it's hard to understand it exactly. I'm comfortable with ASL. I can read a little bit of English. I get by, that's all I care about."

What's your favorite thing to do?

"I love everything," signed Roderick with a smile. "I don't really have a favorite thing to do. I do whatever."

#### HISTORY

In the early 19<sup>th</sup> Century Dr. Mason Fitch Cogswell, an alumnus of Yale University and a wealthy physician learned that his favorite daughter, Alice, had been early-deafened by "spotted fever." Typically in that era, wealthy Americans had two options: 1) send the child overseas to the famously oral Braidwood Academy in Scotland or 2) Hire a private tutor to teach your child to speak, read, and write. The Cogswell family didn't want their child going on a month long voyage to Scotland, nor could they find a qualified tutor for her; and they refused to have her institutionalized since they recognized that she was a bright girl. Alice needed a real language and Dr. Cogswell was determined to find someone who would teach her one.

Dr. Cogswell did some research on education for the deaf and found a book about the possibility of education with sign, published by abbe Sicard at the National Institution for Congenital Deaf-Mutes in Paris, France. The Cogswell's neighbors were the Gallaudets, and Thomas Hopkins Gallaudet was also a Yale University graduate who was at home recovering from his chronic sickness. Gallaudet saw that Alice was language less and has a hard time playing with the other children. Gallaudet, due to his own sickness, suffered the same childhood and felt empathy for the little girl. He decided to have Alice come over and played a game with her to teach her the word "HAT." Alice enjoyed the game and wanted to learn more, like how to spell her own name. Gallaudet was confident that Alice understood and talked to her father, Dr. Cogswell about her progress. Dr. Cogswell of course was delighted, and the two agreed that Alice should be tutored by Gallaudet, though the two adults were convinced there were more like Alice who should be educated: why not start a school? Dr. Cogswell did a census taken by Congressional ministers, which showed that Connecticut alone had 84 deaf people – enough to establish a school. Dr. Cogswell and ten other wealthy fathers of the deaf had a meeting and chose Gallaudet to go to Europe and learn more about educating the deaf so there could be a school for the deaf in Hartford that could serve all deaf people in the U.S.

Gallaudet received zero help from the Braidwood Academy's London branch. Like many oralists of their time, the Braidwood Family guarded their techniques carefully: they were in it for the money and could've cared less about the education of the deaf. The Braidwoods essentially told Gallaudet that he could stay there for 3 to 5 years and learn their method, but it would cost him, and he would have to pay them for every child he taught their method to. Gallaudet refused this offer and, furthermore, was not impressed with the progress any of their students made anyways.

Gallaudet left and found a flier announcing that there was going to be a public demonstation in London given by abbe Sicard. Abbe Sicard was giving lectures in London about the French method of education for the deaf and demonstrated this progress by showing off two of his most intelligent pupils, Jean Massieu and Laurent Clerc. The audience was then invited to ask Massieu and Clerc questions, abbe Sicard interpreted, and the two would write their responses in French and English on the board. Gallaudet was astounded by their answers, which demonstrated profound understanding and often wittiness. In 1816 Gallaudet was tutored for free by Sicard and Massieu, and though he studied long and diligently, Gallaudet realized that there wasn't enough time to master everything he needed to know to teach the deaf in America, and his funds were dwindling (Moore and Levitan, 40-43). Gallaudet begged Clerc to come to America to help teach sign language to the deaf. At first Clerc was hesistant, he was very well respected in France and in the Deaf Community there, but eventually Gallaudet convinced him and the two journeyed to America. The American School for the Deaf opened on April 15, 1817, and Alice Cogswell was the first to enroll. Clerc and Gallaudet taught classes and of course, sign language was used in the classroom. Clerc used FSL and often fingerspelled but soon realized that his students already had their own way of signing. Clerc dropped his methods and incorporated his LSF as well as the students MVSL. ASL became the mode of communication and the curriculum included English literacy, industriousness, and Congregational-style morality – not oralism (Moore and Levitan, 43-44).

# GENETICS

Dr. Christina Palmer makes her job sound easy. She gets to her office at UCLA around 9am and stays there until 6pm. In between that time Dr. Palmer analyses data, writes papers on her research and their findings, prepares for meetings, prepares for classes and collaborates with whomever she is working with at the time on her project. Dr. Palmer no longer does the lab work; she now conducts the experiments and publishes her discoveries.

Dr. Palmer is just wrapping up her current project entitled, "Deaf Genetics Project" which is funded by the National Institutes of Health. Dr. Palmer has been conducting this project for over four years, and in May 2010 she published her findings in a report called "Deaf Adults' Reasoning for Genetic Testing Depend on Cultural Affiliation: Results From A Perspective, Longitudinal Genetic Counseling and Testing Study" in the *Journal of Deaf Studies and Deaf Education*. Dr. Palmer's study included 256 deaf individuals who have sensory neural deafness in the cochlea.

Sensorineural deafness is a type of hearing loss, which is caused from damage to hair cells of the inner ear or the central-processing centers of the brain don't function properly. The greater majority of the human sensorineural hearing loss is caused by abnormalities in the cochlea. About 4,000 infants are born in the U.S. with sensorineural deafness due to causes ranging from maternity infections to heritage. A person who is born deaf – congenitally deaf - and hereditary deafness is not the same. Meaning, not everyone who is congenitally deaf is also hereditarily deaf. Children who are born deaf due to prenatal diseases may not necessarily have any hereditary history with deafness at all. Moreover, a person who may be hereditarily deaf may be born with normal hearing that may or may not deteriorate with time.

Conductive hearing loss, caused by damage to the outer or middle ear, which may be treated by hearing aids in some cases. Presbycusis is another type of nerve deafness common in elderly since presbycusis is often caused by changes in the ear due to aging. There are many other types of deafness that can be caused by stroke or injury to the head, creating irreversible auditory brain damage. The definition for sensorineural hearing loss in Turkington and Sussman also states that, "any tumor that grows close to the auditory nerve or auditory centers in the brain can also cause nerve deafness." A loud noise or constant noise can also damage sensory cells and nerve fibers from anything from loud music to working in a noisy factory. Drugs and diseases can also affect the structure of the ear. Almost always the deafness is permanent and irreversible (except in some cases where drugs may have caused deafness). The degree of nerve deafness is typically arranged into three categories: mild hearing loss (15-30 db, straining to hear), moderate hearing loss (35-55 dB, need conversation repeated frequently, TV volume up high and often misunderstands words in a conversation), severe hearing loss (60-90 dB, usually requires a hearing aid) and profound hearing loss (90 or more dB, only hears very loud sounds if anything at all). (Turkington and Sussman, 165-166). All of the cases above are example of sensorineural deafness, the type of deafness that Dr. Palmer is studying.

"Everybody has two copies [of DNA], it's just a matter of the recipe," says Dr. Palmer. "For deaf people the recipe is not producing that protein for the cochlea in both copies."

Dr. Palmer interviewed 256 people with sensorineural deafness, ranging from mild to profound hearing loss, in order for them to be able to understand their genetic heritage. She spent 2 years recruiting and enrolling adults over the age of eighteen, who have been deaf or hard of hearing since an early age, and who had no prior explanation as to why they are deaf. Once she had enough people enrolled, Dr. Palmer's team gave each participant an audiology session, the participants then met with a genetic counselor to discuss the project's importance – allowing the participants to ultimately decide whether or not they want to go through with the experiment. If the participants did decide to continue with the project, a cheek sample was obtained and sent to the lab at UCLA. When their results came in, the participants then sat with their genetic counselor and went over the results and what it meant with their family history.

"We wanted to find out what genetic information meant to deaf people," Dr. Palmer said, "There have been a number of people interested in hearing genetics, but not deaf."

In order to track how each participant was feeling about their results, Dr. Palmer distributed a baseline form before the experiment took place, then another after the genetic counseling session, another one month after and the last six months after. These forms (found online in the forms of an American Sign Language video, English and American Sign Language, English, and Spanish) contained questions about each participant's demographic information, interest in genetic testing and how they perceived their deaf identity (bi-cultural: identified with the deaf and hearing world, deaf: identified with only the deaf community, hearing: identified with only the hearing community and lastly the self-explanatory category of I don't belong anywhere.

The two genes Dr. Palmer was specifically looking at were Connexin 26 and Connexin 30, which another scientist found to be connected to most deafness in the early 2000s. Dr. Palmer states in her findings that "studies of samples of deaf individuals with sensorineural deafness in the United States have found that 22 percent to 40 percent have Connexin-related deafness." Dr. Palmer also found there was a strong interest in testing to learn why they are deaf, but little interest in using it for decisions about a partner or having children (Palmer, 2010).

Dr. Palmer did point out that most deafness is prevalent in Europeans and Caucasians and is found less frequently in people of African or Asian descent. Yet, as will be continually stated in this paper, 90 percent of deaf children are born to hearing adults. There have been exceptions to this rule in certain types of deafness though, like Dr. Palmer stated. One of those exceptions is Martha's Vineyard's Signing Community.

The first European settler arrived at Martha's Vineyard in 1644. Martha's Vineyard is an extremely unique case of solitary confinement, for on Martha's Vineyard it was unlikely to travel far due to the closeness of the community and that everyone spoke Martha's Vineyard Sign Language (MVSL). Many people on Martha's Vineyard never even traveled to the next town over, nevertheless to another place off the island. A record was even found of a man who wrote of his married sister's departure for her new residence in Nantucket in the past tense, as if she was dead (Groce, 37). On Martha's Vineyard one in every 150 people is deaf – over 10 times the usual rate (Lane, 271).

In the few medical records available from Martha's Vineyard, "only one deaf child was born to a couple in which one partner's family came from off-Island" (Groce, 21). There have been approximately 70 different types of hereditary deafness, though about half of these types are associated with different

diseases. It appears that a recessive gene caused the remaining types of hearing loss. On the Island, 85 percent of children who were born deaf had parents who were hearing (Groce, 22). If the trait for deafness follows a classic recessive inheritance pattern then it must begin with a single genetic mutation in an individual. If a gene is affecting an aspect of the neural or anatomic development of hearing is changed in a way that development doesn't occur. The result of such a mutation would not be evident in that individual but in their children. If a descendent of these children then reproduces with another descendent who carries the gene where it first occurred, then their offspring may receive a gene for deafness from each parent and therefore become deaf (Groce, 23). It is possible but extremely unlikely that these circumstances would occur in two individuals who would then end up mating. Since so many different forms of recessive deafness exists, and parents must have identical recessive deafness for it to be passed down to their children, geneticists typically see any type of recessive deafness as proof that the parents shared a common ancestry. The amount of congenital deafness most likely is a result of more than just a mutation for deafness in one individual (Groce, 23). Due to the closeness of Martha's Vineyard and the lack of travel, by the late 1700s there were 95 percent of people on the island who married someone to whom they were already related and by the middle of the nineteenth century there were 85 percent of people who married one of their cousins. As a result of these marriage patterns, within three generations nearly everybody on the island whose ancestors weren't from Kent were now connected to someone of Kentish decent either by marriage or another relation. As inbreeding continued, the frequency of the gene for deafness increased (Groce, 41).

This is where Alexander Graham Bell stepped in. In the hearing world, Bell is known for inventing the telephone. In the deaf world, Bell is looked at as a Hitler who attempted to exterminate deaf and Deaf culture.

Bell believed that all deafness was hereditary and needed to be stopped, so he searched for proof. Bell, whose mother was deaf and who married a deaf woman, thought that all deaf people were miserable human beings who lived sad lives. Bell also used eugenics, a pseudo-science, which deals with inherited characteristics and attempts to improve generations by choosing suitable parents (Moore and Levitan, 289).

Bell went through research on Martha's Vineyard for four years with a team of researchers. When he finally found the genealogies and history on the families, he couldn't see any patterns within them. Bell was frustrated by deaf parents who sometimes had hearing children and by hearing parents who sometimes had deaf children – he couldn't make sense of it. Though Bell did not understand the way deafness was passed down, he made it know that he believed it was hereditary and that deaf people should not be able to reproduce since it might create deaf offspring. He also stated that if deaf children were put together in an area like Martha's Vineyard, then there would be an increase in deaf marriages eventually leading to a whole race of deaf people. "A few were sterilized, often against their knowledge or will" (Groce, 47-48). Bell advocated that deaf teachers shouldn't be hired to teach deaf students, that oralism should be the only teaching method available, and that signing should be abolished (Turkington and Sussman, 32).

Though Bell did invent an assistive listening device for hard of hearing people, he made his opinion of deaf people very clear in his *Memoir Upon the Formation of a Deaf Variety of the Human Race*, by calling deaf people "undesirables" and attempting to find ways to prevent deaf people. Bell even proposed legislation to prohibit deaf people from marrying each other, in the hopes that if deaf didn't marry, then they wouldn't reproduce and have more deaf children; although nowadays we know that theory was wrong even if it had been enacted. Needless to say, many deaf people weren't huge fans of Alexander Graham Bell (Moore and Levitan, 289).

Despite Bell's views, residential schools such as the American Asylum for the Education and Instruction of Deaf and Dumb Persons (presently The American School for the Deaf) in Connecticut on April 15, 1817 and other openings of residential schools for the deaf eventually developed and allowed many deaf people on Martha's Vineyard to meet and procreate with other deaf people whose deafness stemmed from another range of causes (childhood disease, accident, etc.). Some had recessive forms of deafness but not the same type as the people on Martha's Vineyard. Therefore, the offspring of these marriages did not inherit Martha's Vineyard's form of deafness. In fact, the probability of deaf people on Martha's Vineyard having deaf children would've been higher if they had married and had children with a hearing person on the island. Eventually, improved transportation and crowded city life forced many wealthy families to seek a vacation on Martha's Vineyard for the summers. There was also a decrease in many island trades such as whaling and raising sheep, forcing islanders to find work on the mainland. Many people returned to Martha's Vineyard with their off-island spouses and there were also many Portuguese immigrants who were also making Martha's Vineyard their home, changing the islands genetic character forever. As a result of these changes in marriages in the hearing and deaf communities, the number of children who were born deaf declined rapidly. In 1945, the last deaf islander died (Groce, 49).

#### DEAF LIFE

In downtown Warren there is a small community center having a Halloween party. The costumes are ordinary – witches, pumpkins, angels – but the noise level is extraordinary: complete silence. It's not that the party isn't fun or that people aren't talking, it's in fact quite the opposite, there are people smiling and animatedly communicating through American Sign Language (ASL), a visual-gestural language used as a primary means of communication by most deaf people in America (Turkington and Sussman, 12).

The Corliss Institute is a Deaf community center where people can come together to meet other Deaf people, to learn ASL, learn or teach necessary life skills such as cooking or just simply hang out. Hanging above the entrance there is a wood plaque painted white with black lettering indeed declaring the building the "Corliss Institute" with a drawing of an ASL sign meaning "connect" next to the lettering. Inside, people are quickly pointing at me announcing my arrival to a tall, friendly woman at the front desk who nods at the others and welcomes me in by speaking in English – she is clearly a hearing person who is part of the Deaf Community<sup>2</sup>.

Today, there is a potluck lunch and Paul Molloy, Director of Employment at the Corliss Institute, is continually checking the clock on his computer with a magnifying glass to make sure his famous Macaroni and Cheese doesn't burn in the oven. Molloy identifies as deaf and hearing, since he now has a cochlear implant, though Molloy was born deaf. He is actually deaf and legally blind, hence the magnifying glass. Molloy can only see directly in front of him, meaning that when his receptionist comes in to say hi, he doesn't see her until he sees me react to her presence, or when she stands directly in front of him. Molloy is one of ten children, five of whom were also deaf, so there was a lot of communication with his siblings and parents within his household. Molloy originally went to a deaf school but his parents took him out of a deaf school because they thought their son was smarter than that, so Molloy quickly became the "deaf kid" at his new hearing school.

"I just sat there like a quiet, deaf child," said Molloy. "I went to school before the ADA [Americans with Disabilities Act], it was either sink or swim."

 $<sup>^{2}</sup>$  If the word "Deaf" is capitalized it refers to the Deaf community. If it is lower cased it refers to a deaf person.

Molloy grew up in a time of speech therapy and was taught using the Todoma Method, the same method used by Anne Sullivan to teach Heller Keller how to speak. Oralism, a communication method for the deaf and hard of hearing that stresses that they use speech reading and auditory training in an attempt to merge with the hearing world (Turkington and Sussman, 144). This, along with the cochlear implant is why Molloy signs while he speaks (a method called **Simultaneous Communication**, see below), which is very rare for a deaf person to do. Most deaf people are nowadays both not taught to speak (since they cannot hear what they're saying, the main reason why oralism is now out-of-date) and if they can speak, as is the case with some hard of hearing people or late deafened people, they do not sign and speak at the same time. The reason for this is that ASL and English have an extraordinarily different grammatical structure. Using ASL and speaking English would be like speaking French and Spanish at the same: they are two completely different languages, which use completely different vocabulary; it would be confusing and frustrating to use both languages when speaking to a person who may only understand one or even both. Hence is the same example with using both ASL and English, you are relaying one message in English and a completely different message in ASL. For example, Molloy was talking about Rhode Island School for the Deaf and signed "Rhode Island Institute" though he said the former, if I wasn't hearing, I would've thought that Rhode Island Institute is a different place of learning. This is also the case with grammar as well. In English one might ask someone, "Are you going to ride the bus?" In ASL, one would ask the same question by signing, "You ride bus you?"

Despite all the research that has been done, despite many people advocating for ASL, despite proof about the right way and the wrong way to educate deaf people, institutions still exist where oralism is taught to the deaf, as well as the stigmas that also are automatically applied to the deaf by hearing people. Molloy can recount several different times where he has signed during dinner and his friends speak (since he has a cochlear implant and has been trained to read lips unlike most deaf people) to him and when the check comes they give the check to his friend who was speaking. He even talks about a time when he went out to dinner and signed to his 16-year-old daughter who spoke back to him and when the bill came the waiter gave his daughter the bill.

"It's one of those sad mentalities that's still around today," said Molloy. "You can get angry and get annoyed but does that really solve anything?"

This reminds Molloy of another story where he felt discriminated against. Molloy was walking down the street in New York to get to a prestigious meeting he was invited to. Molloy was dressed in his best clothes: a tuxedo, a top hat, gloves, etc., but he was also walking with his cane to make sure he didn't bump into anything he missed in his peripherals. Molloy saw straight ahead that there was a homeless man sitting on the street begging for change. Molloy bent down and gave the man some money and about halfway down the block, Molloy was stopped by that same homeless man.

"Here," the homeless man said, shoving Molloy's money back into his hand, "You need this money more than I do."

It's safe to say that Molloy isn't a typical example of an average American deaf person. Not only does Molloy have a bachelors and a masters degree, he was raised with a family that could communicate with him, has many siblings who were also deaf, he was raised in a time of oralism, he was raised without the ADA, he speaks while he signs (deaf people only sign), and he has a cochlear implant (a decision he made when he learned he was becoming blind).

Molloy admits that many deaf students pass school through a "social passing," because the school either doesn't know what to do with them, think deaf people are mentally incapable, or they just don't have the means or the teaching tools, such as proficiency in ASL, to educate the deaf properly.

# EDUCATION

The first School for the Deaf in the United States opened April 15, 1817 with Laurent Clerc and Thomas H. Gallaudet, (see above section "HISTORY" for more information) during that time, deaf education was all residential. Therefore, many parents either didn't learn sign or didn't feel the need to sign since their children mainly communicated with people at school anyways. This unfortunately still continues today. Out of the 1200 parents of the deaf that Molloy works with, 100 of them know ASL and can communicate with their child.

"I think schools for the deaf on a national level need to develop a requirement," said Molloy. "They're so short staffed so then the question comes up 'is the most appropriate language being used?' The answer is, it depends on my child's need."

There are many different types of methods for communication with the deaf. Of course the most common is American Sign Language. However, there are many different methods of language taught at

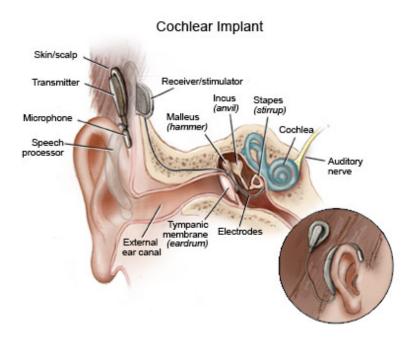
distinct deaf schools. One method that most teachers of the deaf widely accept is **Total Communication**, a method of teaching that implies acceptance, exposure and opportunity to use all possible methods of communication to help deaf children learn to communicate. Total Communication also provides exposure and an opportunity to learn all modes of communication and allows the child to use whichever mode is easiest and with which he is best understood (Turkington and Sussman, 187). Rather than focusing on one specific training method, this approach can include speech reading, speech, sign language, auditory training and amplification, writing, audio-visual methods, finger spelling and graphics – this method, when used correctly is one of the best method for deaf or hard of hearing children (Turkington and Sussman, 187). Unfortunately, Total Communication is often confused with **Simultaneous Communication (Sim-Com)** method, which combines both speech and sign at the same time; a method interestingly enough that Molloy uses.

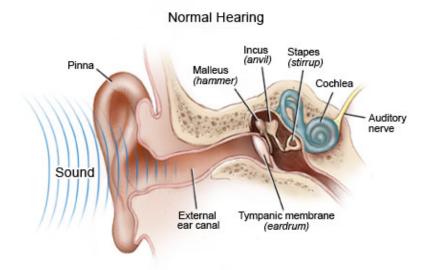
Another method of teaching that some teachers of the deaf incorrectly use is called **Pidgin Signed** Language. This method is typically for hearing people who don't know much American Sign Language but are still trying their best to communicate with the deaf. It combines English word order and simplified grammar structure with the vocabulary and features of American Sign Language (Turkington and Sussman, 154). Also taught incorrectly at some deaf schools is Signed English, a manually coded English system used to represent spoken English. There are 3,500 sign words and 14 sign markers, and the person using Signed English can match each spoken English word to a sign word or sign marker. It is clearly not possible to represent the entire English language with all the various meanings, grammar, affixes, etc., however, in Signed English one is pushed to try their best to choose the most common English words and transcribe them into sign words or sign markers (Turkington and Sussman, 169). With these different methods, it is understandable how deaf schools may be a bit confused on what exactly they should teach, yet it is still not acceptable that there isn't a system of regulation in place to make sure each deaf student gets as much a right to graduate and succeed in the real world with an education equal to that of a hearing student. Many deaf parents either ignore the school system and just assume that a school for the deaf means that their deaf child will get an education, not knowing these different methods of communication and which ones are the most effective in learning and succeeded with communication. On the other hand, there are many parents who do understand this and either send their child to a school with ASL or Total Communication and who learn the type of communication that their child is comfortable with.

"It's amazing that the majority of parents use taboo sign language," says Molloy. "I try to convince parents to help the child learn and grow with whatever means necessary but most don't. I wish I saw more parents signing."

# COCHLEAR IMPLANTS

The cochlea is a snail-shaped part of the ear, which contains fluid and thousands of microscopic hair cells tuned into various frequencies and more than 20 types of cells. The membranous part of the cochlea is surrounded by bone where there are two windows: oval and round. Sound travels through the middle ear, reaching the **stapes**, which is attached to the oval window by a ligament that allows it to move, transferring sound vibrations. A cochlear implant is surgically implanted in the mastoid bone to stimulate the hearing nerve and enable a hard-of-hearing person to perceive some sound; though it does not restore normal hearing (Turkington and Sussman, 48). A magnetic coil is placed in the mastoid bone behind the ear where an electrode runs from the magnetic coil and may be placed either within or outside the cochlea. The electrode stimulates the hearing nerve and allows a person to perceive sound. Cochlear implants have improved the communication skills and speech reading ability of adults who have lost their hearing after they learn to speak. Still, there are 15 million Americans with significant hearing loss, less than 1 percent is a potential candidate for an implant. (Turkington and Sussman, 48). This does not mean that less than 1 percent has been implanted, however. Herein lies the controversy. Many hearing parents upon finding that their child is deaf immediately implant them thinking that an implant automatically makes their child a hearing person, which is obviously false. A cochlear implant only transmits sounds, and may not even transmit all or any of the sound depending on someone's hearing loss; this is called **pitch discrimination**. There are also different types of implants. The simplest implant is a multi-channel implant that contains 20 electrodes with a device that encodes frequencies and is implanted along the cochlear duct. One of the other controversies of cochlear implants is that it is not yet possible to predict who will benefit from a cochlear implant or how well an individual may benefit from it (Turkington and Sussman, 48). A cochlear implant, much like any other surgery also has risks involved: it is possible that the implant could damage the inner ear, destroying any remaining hearing that the individual may have. Although chances are slim, there are also risks of infection and possible damage to the facial nerve or vestibular system (Tukington and Sussman, 48). Good candidates for cochlear implants include people whose cochlea is completely ineffective but whose nerve endings still respond to direct stimulation (Turkington and Sussman, 48).





(both diagrams taken from UCLA's Mattel Children Hospital at kidshealth.org)

Alison Grimes, AuD, is the head of the Audiology Clinic at UCLA Medical Center, an Assistant Clinical Professor in Head and Neck Surgery, and the former American Academy of Audiology President. Dr. Grimes provides audiology services to patients of all ages, including newborns and has been in the field for 35 years. She studied at UCLA for her bachelor's degree, then earned a Master's degree in Speech Pathology at Humboldt State University, then acquired another Master's degree in Audiology at the University of Denver, and finally, she went on to receive her Doctorate in Audiology at Central Michigan University, and has now come full circle, back at her old stomping grounds at UCLA.

Dr. Grimes receives patients from other audiologists, physicians or if the patients are self-referred. One of the things that she does from the very beginning is counsel the patients along with her expert team of speech pathologists, surgeons, and social workers. The team generally meets with the patient and does some tests, including an MRI and CT scan of the ear (specifically the mastoid and middle ear), a procedure that mainly checks to see if there are any tumors, to determine the extent of bone involvement, and to get an overall visual of the ear canal. The team then has a meeting to discuss the patient's candidacy and whether or not the person is eligible for a cochlear implant. If given the green light, her team goes ahead with the surgery. The surgeon opens tissue up behind the ear and drills the mastoid bone at the back of the inner ear and places the implant inside the inner ear. The surgeon then checks to make sure the implant works, and then closes the inner ear.

"The surgery is almost always successful," said Dr. Grimes. "What's important is how they are able to use the cochlear implant after learning new auditory information."

After a patient receives a cochlear implant they come back to the center weekly or monthly depending on their progress. The first time a patient with a new cochlear implant comes in, Dr. Grimes turns on the cochlear implant's external processor and does an initial map. A map calculates the electrical stimulation necessary for the cochlear implant user to perceived soft and loud sound comfortably. Normal hearing processes sounds within a 120dB range. Normal speech processes between 40 and 60dB. Cochlear implant patients can process a range of only 6-15dB. (Beth Israel Cochlear Implant Center, NYC). Dr. Grimes adjusts how loud to make the implant at each different pitch based on the mapping. Each patient's implant must be fine tuned to his or her own hearing. They also continue to receive counseling on how to work with their cochlear implant as well as emotional counseling if they need it. How does Dr. Grimes determine who is a good candidate for a cochlear implant?

"A lot of this is about realistic expectation," said Dr. Grimes. "If a person who only signs wants to speak then I would say no. If a parent wants auditory awareness because they have a newborn then I would say yes." Dr. Grimes has a very clear approach to cochlear implants: it's the patients' choice – not hers. She understands that deciding to get a cochlear implant is a big life decision for a deaf person or a family with a deaf child, and that her job is to only answer their questions, not give her opinion. Dr. Grimes also acknowledges that she was lucky to have a mentor doctor who taught Dr. Grimes a lot about Deaf culture very early on in her career. Dr. Grimes encourages families to teach their child sign language because she knows any child will do better with some type of language. She is also in tune with the fact that there is no single solution for all parents, and she has seen them all from very sophisticated parents to naive parents who think cochlear implants will "cure" their child.

"We hear with our brains, we don't hear with our ears," said Dr. Grimes. "What they hear their brain hasn't been able to make sense of it yet."

Not only does Dr. Grimes understand that many hearing parents use cochlear implants as a device thinking that it will make their child hearing, she also understands part of the reason why cochlear implants aren't so widely accepted in Deaf culture.

"They're quite large and they're ugly frankly," said Dr. Grimes. "Kids don't want to wear glasses or ugly shoes."

The other part, Dr. Grimes acknowledges, is for the family and patient to choose what is best for them and to honor their beliefs.

"This stems to other things," said Dr. Grimes. "Like, if you want to be radical, a women's right to get an abortion."

Still, cochlear implants remain a controversial topic in the Deaf community for a variety of reasons ranging from vanity to identity.

"I'm not anti it [cochlear implants] and I'm not pro it, it's an individual choice," says Molloy. "It [the hearing screening doctor's perform when a child is born] may not show how deaf that child is and the parents want to implant them right away. The thing that scares me about the cochlear implant is that it's irreversible."

He shares a fear that many other deaf people have. Molloy has only his left ear implanted because he's scared that if some other technology comes out that is more advanced for the deaf, he'll be ineligible for it due to his implant. If Molloy was guaranteed that there was no other form of technology coming out that is superior to the implant, he would get both ears implanted, though he stresses that implants aren't for everyone.

What if you have a deaf child, would you give your child a cochlear implant?

"I would let my child make that decision," said Molloy, "If a parent chooses cochlear implants they shouldn't limit their child's learning to auditory. Parents should meet other parents of the deaf. Think outside the box." Another issue that Molloy has with cochlear implants and, perhaps, one of the reasons why he resisted getting one himself for so long is that like many other people, Molloy didn't want to appear to be different than others. When Molloy was younger, he wore a hearing aid around school, and back then technology wasn't as simple as it was today. The hearing aid when Molloy was a child essentially looked like a stethoscope that one would wear around their neck, which attached to that person's ears. Naturally, other hearing children made fun of Molloy for being different.

"Let me show you something else," said Molloy, in a matter of fact sort of tone. He pulls out a paperclip from his desk drawer and slowly lifts it to his left ear. The paper clips slips out of his finger and neatly attaches to his head, due to the magnet in his cochlear implant. "I'm not being a robot. I keep my hair long to cover it. You always want to be the same as your peer." A cochlear implant affects one's identity and their social impact, especially in a hearing school where nobody else has a cochlear implant. Molloy testifies, not only a victim himself, but as a person who has witnessed it: walk into any hearing school where a deaf person has a cochlear implant and there will be at least two paper clips attached to their head.

"I would never take a cochlear implant," signed Roderick. "I'm just not interested. I've seen people with cochlear implants but no – not for me. Mom would keep trying to convince me, 'but then you'd hear it would be so much better.' Dad doesn't care."

Professor Martin understands Roderick's position on cochlear implants.

"If we – non-deaf people – we're given an option to have surgery to get a third arm and were told of all the benefits it would bring, all the things we could do I feel confident not many people would accept surgery," said Professor Martin. "If you feel whole and efficient and in tact, why would you have surgery to be something else? Being deaf is as much a state of mind as it is of being. Roderick and people like him don't spend their days wishing, hoping, wanting to be something other than what they are. And for someone like him it would mean rejecting his deafness to be an impaired hearing person. Why would he leave his culture to be a deficient person of a different culture? It would be a rejection of themselves. Being deaf isn't a person who doesn't hear, it's a culture and identity, and people who look at it as a medical condition completely miss the point. For Roderick, it's not a medical condition – it's a human condition, it's who he is."

Lori Soroko, a teacher of the deaf and hard of hearing, has seen many different cases of people who are deaf and hard of hearing. She sometimes teaches a baby who is two months old and born deaf, to an 18 year old who lost his hearing in an explosion and now has cochlear implants. The nature of Soroko's job is changing due to technology and devices like cochlear implants. Before, if a deaf child were born to hearing parents, Soroko would have to teach both the parents and child American Sign Language (ASL) so the child could communicate with their parents. Now, Soroko is seeing more and more cases of parents electing to have cochlear implants for their child.

"I feel they need sign language," says Soroko, who has been a teacher of the deaf and hard of hearing for 30 years, "some kids aren't auditory learners." Soroko also teaches in the Santa Monica-Malibu Unified School District (SMMUSD) as well as some schools at the Los Angeles Unified School District (LAUSD). Soroko unfortunately is a witness to many of these students graduating high school without the skills they need to be successful in the real world.

"Usually the highest level of reading comprehension would be 4<sup>th</sup> grade," says Soroko. Soroko makes it clear that a lot of assessment is necessary when taking in the right method to teach a child who is deaf or hard of hearing. Soroko once had a student in SMMUSD who was a great candidate to learn sign language. The student was deaf, 18 years old, and barely able to communicate. She began teaching him ASL, and the parents stormed in, angry that Soroko wasn't trying to teach their child to speak and behave like a hearing person.

"They want their kids to fit in to a hearing world and be successful," says Soroko, "You have to look at the individual child [and meet their needs]."

Soroko makes a valid point: many parents want oralism for their child, assuming that if they talk, their life will be easier. Oralism is the method where deaf and hard of hearing people learn how to speak. This method sometimes is successful for people who are hard of hearing, have cochlear implants, or become deaf or hard of hearing later in their life. Teaching someone who can't hear themselves speak to talk, is a difficult way to have them communicate with others. Not only will the person not be able to

identify whether or not they are saying each word correctly since they cannot hear themselves, but the person also cannot hear what people are saying back to them, which forces them to rely on lip reading, a hardly accurate form of communication.

Children begin speaking at nine months, whether they are deaf or hearing, they begin to babble. As teachers like Soroko will tell you, between ages three and five your neuropath waves have stopped. After that, it's hard to learn auditory if you never have before. For these reasons, cochlear implant candidates should only be children under five years old, people are hard of hearing, or adults who were born hearing but lose their hearing due to an accident or old age. Many people are also falsely told that if their child installs cochlear implants then they will magically become hearing. Cochlear implants, though a wonderful device if used right, do not 100 percent manipulate sound to be heard the way hearing people hear sound. A hearing person, who later lost his hearing and got cochlear implants once told their friend that everyone he talks to sounds like Donald Duck. Another thing about cochlear implants is that they're not 100 percent effective in all cases, as many doctors would have you think. For some, cochlear implants create miracles and allow late-deaf candidates to hear once again. In other cases, some people may only be able to hear some sounds like "f" and "s" but not "d" and "I" and therefore it becomes frustrating and they disconnect their implant entirely. Which leads to another fact that many doctors fail to mention to their cochlear implant candidates: when the hearing device from a cochlear implant is disconnected, the person is once again completely deaf.

Soroko graduated from California State University at Northridge with a degree in education. She took some sign language classes there and went on to San Diego State University for Graduate School with a Masters in Special Education. One must understand though that Soroko teaches at public schools in Santa Monica and Los Angeles. This is different from educators who teach at deaf schools or deaf residential schools. In public schools, like the one Soroko works at, deaf and hard of hearing students are automatically put into the special education program. They are sometimes integrated into hearing classrooms for math or art, but if they are deaf, they are followed around by an interpreter and are unable to communicate with the English-speaking students around them without the interpreter. In these public schools, specialists like Soroko are also stretched incredibly thin. Soroko works with 30 students a week, all at different schools in Los Angeles.

## AMERICAN SIGN LANGUAGE

American Sign Language (ASL) was developed by American Deaf People and has existed as long as Deaf Americans have. Since the late 1800s many deaf people were prohibited from using ASL (Smith, Lentz, Mikos, 3). Deaf people were made to feel that ASL was inferior to English, and that communicating in sign, especially in public, was socially unacceptable (Moore and Levitan, 39). Many hearing educators believed that the only way for the deaf to be integrated in a hearing world was for them to learn how to speak and lip read. In the past many have even tied children's hands to prevent them from signing (Smith, Lentz, Mikos, 3). Yet, ASL continues to be the preferred communication method for the Deaf community. Deaf people often refer to ASL as their natural language since it reflects their culture (Smith, Lentz, Mikos, 3). Though there has been some progress concluding that ASL is an effective mode of communication for the deaf, many deaf children are still discouraged from making ASL their first language (Moore and Levitan, 39).

Laurent Clerc and the people of Martha's Vineyard were the main contributors to what is now American Sign Language. Clerc, who was the first deaf teacher in the United States, co-founded the first deaf school, appropriately named American School for the Deaf in Hartford, Connecticut. ASL is a combination of French Sign Language (LSF) and Martha's Vineyard Sign Language (MVSL).

Unfortunately, many educators don't entirely see the importance of ASL and how it has been proven throughout the history of the deaf to be the only method for all levels of deaf and hard of hearing to communicate, regardless of their hearing loss. Many deaf educators don't think ASL helps to integrate students into the hearing world and that ASL doesn't help the deaf understand English, and this is where they are wrong. Take the example in reverse for instance. Right now, I am able to speak fluent English because my parents taught me how to speak when I was little by pointing at objects like an orange and saying to me "orange." This is how deaf parents teach their deaf children to sign. They point to an orange and sign "orange." When we both grow up we each have our own language to communicate. Right now I am learning ASL. When I don't understand something I ask the question in English. Same with a deaf student who is learning English, they would ask the question in ASL. Now imagine a child who has absolutely no language at all. They function only by following the people around them to learn what they know. They cannot ask questions because there is no way for them to formulate such a thing. Which is better? Having a language that isn't English but having a language that is a basis to learn? Or having no

language or means of communication at all? Many parents want their child to be oral because they want them to speak. Many parents avoid ASL like the plague because they think it segregates them from the rest of the world, which it doesn't help them to succeed in a hearing world. Many parents in the end don't really care what's best for their child. They really only want one thing.

"They want their kid to be hearing!" said Soroko. "It kills me! And all I can do is advise and advise."





**ABOVE LEFT**: Roderick Brito (left) with Manny Martin (Right) at the American Sign Language Academy. **ABOVE RIGHT**: Manny Martin teaches Level 3 of ASL at Roger Williams University

BELOW: Manny Martin teaches Level 3 of ASL at Roger Williams University



