The seeds of language: Child and adult homesign systems in Nicaragua

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Imagine a child living in a typical family who has never encountered a language. Would this child be able to invent his or her own language without ever hearing one (spoken Spanish) or seeing one (Nicaraguan Sign Language)?

What do we know from previous research?
Deaf children in this situation, in many countries around the world (for example, the United States, China, Spain, and Turkey) will develop a gestural communication system called “homesign” to communicate with their family members. Across cultures, deaf children show the same patterns in the order that they produce gestures; this pattern is like a very simple syntax, or grammar. While the deaf children’s gesture systems appear very simple, they in fact follow the same kinds of grammatical rules, and have the same kinds of structure, found in every language around the world.

Homesigns incorporate many of the gestures that hearing people use while they talk (think of the gestures used in Nicaragua for “eat” and “drink”). Like hearing children learning Spanish, these deaf children begin with one-gesture sentences, and then begin combining gestures into two-word sentences. As they get older, their sentences become longer and more complex. They also use these gestures to talk about the same kinds of things that hearing children use their words to talk about: eating, drinking, objects and people in their environment, etc.

Current projects
Adolescent and adult homesigners in Nicaragua

Since 1996, I have been working with deaf adolescents and adults in Nicaragua who have not learned Nicaraguan Sign Language, but who have invented their own sign languages that they use with their families, friends, and neighbors. I have learned that these small languages have many characteristics of languages that are signed and spoken around the world. One person by himself or by herself cannot invent an entire language, but as humans we have a remarkable ability to invent many pieces of language that we have never seen or heard before.

Child homesigners in Nicaragua

In 2004 I began working with young deaf children (4 years old) in Nicaragua who have not yet begun to attend a school for special education where they can learn Nicaraguan Sign Language. I ask the children to look at a computer screen and describe what they see using their hands. In the accompanying photo you can see a research assistant on the left, interacting with a deaf girl who is playing with toys and commenting about them. My research assistants and I videotape the children and their family members signing and bring the videos back to the laboratory to analyze them. I am now comparing the homesigns produced by Nicaraguan deaf children with those produced by deaf children in other countries.

All people, in all countries, who hear and speak also use their hands when they talk. Nicaraguans who speak Spanish also produce many gestures while they talk, even when they are talking to other hearing people. Nicaraguans use many more gestures that have their own meaning than do Americans. I believe that the large number of gestures available to hearing Nicaraguans and their willingness to use their hands to communicate with deaf children will increase the complexity of young Nicaraguan homesigners’ communication. Specifically, I predict that they will have a larger vocabulary, more gestures per sentence, and more complex sentence structures.
Understanding the origin of Nicaraguan Sign Language

Another reason to study the homesign systems created by deaf people in Nicaragua is to help us understand the creation of Nicaraguan Sign Language. When children and adolescents first came together at the Melania Morales School for Special Education in the late 1970s, they brought with them their homesign systems. These signs and ways of combining signs into sentences that children used at home served as the seeds for the new sign language that developed as they began interacting with each other regularly. We do not have videotape of the earliest years of Nicaraguan Sign Language, from about 1978-1986. Therefore, studying homesign systems can give us an idea of what Nicaraguan Sign Language looked like at its very beginning.

How can this research help deaf children and their families?

All children need language. The best thing for a deaf child is regular exposure to Nicaraguan Sign Language from a young age. The best language environment is any place where people are signing to each other (for example, a school for special education or the Deaf association). However, not all deaf children in Nicaragua have access to a special education school, a sign language class, or the Deaf association, especially outside Managua and its surrounding communities. The same natural abilities that allow hearing children to learn the spoken language around them, and deaf children to learn the sign language around them, also allow deaf children to create their own language when there is no sign language in their environment.

In working with many families in Nicaragua who have a deaf son or daughter who is not able to attend a school for special education, I have learned several things about how to maximize a deaf child’s communication skills. The most important thing is to use your hands to communicate with the deaf child as much as possible, even if you do not know the signs of the sign language. Invent your own! Use signs that are comfortable and make sense to you and your child. Make sure the child is looking at you when you are signing to him or her.
Remember that the child’s brain still works, and still needs to be stimulated with social interaction and conversation, even if the child’s ears do not work. Encourage all family members to learn and use the gesture system that the deaf child invents. Younger children tend to learn this second “language” very well; do not worry that they will not learn to speak Spanish if they are also signing with the deaf person. They will learn both naturally.

Finally, I want to emphasize that learning Nicaraguan Sign Language is the best thing for deaf children. I will continue to work towards the goal of all deaf children in Nicaragua having access to sign language. Until we reach that goal, however, keep in mind the suggestions I have made, be patient with your deaf child, help him or her develop their natural communicative skills, and have faith in their potential to be successful adults.