

# Table of Contents

<b><u>DamnInteresting</u></b> .....	<b>1</b>
<u>The Birth of a Language</u> .....	1
<b><u>DamnInteresting.com</u></b> .....	<b>4</b>

# DamnInteresting

## The Birth of a Language



Home  
Greatest Hits  
Random Article  
Alternative Energy  
Automotive  
Disasters  
Gray Matter  
History  
Medical Science  
Mysterious  
Rights & Privacy  
Space Exploration  
The World of Tomorrow  
Uncategorized  
Wonders of Nature  
Your Tax Dollars at Work

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Random Article  
Blogs Linking to This Site  
Our Flickr Photostream

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[CafePress Store](#)

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[May 2006](#)  
[April 2006](#)  
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[January 2006](#)  
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[The Birth of a Language](#)

Posted by [Marisa Brook](#) on November 3rd, 2006 at 5:12 am



Languages are thoroughly organic and one is complex and versatile, constantly shifting according to those who use it. When social, political or environmental changes create a gap in a language, its individual speakers use creativity and problem-solving skills to generate a solution. Successful changes in language are spread quickly and often intuitively.

Another example of creativity influencing language is when children invent their own languages; however these do not function as languages in the fullest sense. They are typically simple, and lack the structures and/or vocabularies of languages that the children know; they tend to function more as secret codes than anyt

In at least one case, however, a group of children was able spontaneously invent a totally new language out of necessity: the children in question were deaf, illiterate, and devoid of all but the most basic language skills, yet they were able to devise an intricate system of communication to use amongst themselves. Nicaraguan Sign Language (or ISN, for either *Idioma de Señas de Nicaragua* or *Idioma de Señas Nicaragüense*) is a unique and remarkable linguistic phenomenon that emerged in the recent years.

After the Sandinista revolution of 1979, Nicaragua opened a school program for deaf children at a special-education center as part of a nationwide campaign to increase literacy. A second school was opened in 1980, and by 1983 the two schools had 400 students between them.

However, progress proved hard to come by. There was no model of the hundreds of established sign languages from around the world; instead, the students were instructed in lip-reading and alphabetic finger-spelling. Overall, though, the children seemed to retain what they were taught. Because the young students had virtually no language skills, the finger-spelled letters meant nothing to them.

This was unsurprising. Prior to these attempts at teaching them how to communicate, deaf children in Nicaragua had interacted with members of their respective families via idiosyncratic systems of very rudimentary communication (known as *mimicas* in Spanish). This meant that deaf children from different families couldn't even understand each other, let alone form friendships.

But an interesting effect appeared once the many deaf children began interacting in the group setting of the schools. The children learned and elaborating on one another's *mimicas*, and the system of signs rapidly grew. The amazed teachers watched as students began to communicate quite successfully among themselves. This was immeasurably more than any little 'secret code' based on existing, spoken language; these children were inventing the structure of ISN along with the vocabulary. They were, in a sense, teaching themselves to use language in general.

When the Nicaraguan Ministry of Education became aware of the phenomenon, its members found themselves baffled by the phenomenon. They sought help from sign-language specialist Judy Shepard-Kegl, then at Northeastern University in Boston. Intrigued, she set out to document and analyze the fledgling language. She boldly started directly interacting with deaf teenagers at a vocational school. She was able to figure out a handful of the more straightforward signs, such as "house" and "what's up?" - but found herself confounded by the majority of the communication. Frustrated, Kegl moved on to younger children.

The difference between the teenagers' and the children's language was striking. The younger speakers of ISN included many more grammatical features, for example, verb agreement, in which the number, gender, and person of the subject(s) is indicated with verb inflection. It was obvious that the children were using their language at a substantially more fluent level than the teenagers, a finding which coincided with the theoretical "critical period" for language acquisition. The idea holds that, in general,

children can rapidly absorb and master new languages until six; the ability declines quickly until age twelve, and after the acquisition of a new language requires substantially more effort.

In the case of ISN specifically, Kegl suggests that the gestures exchanged by the older students were interpreted by the younger language input. The younger children learned the gestures naturally began to add to them, filling in any linguistic gaps along the way. This was what allowed ISN to become a language rather than a mere set of signs. At this point the older children learned from their younger classmates; their less fluent usage was akin to second-language acquisition in adulthood. Of course it is still possible the language could change over time, but it has developed and the process would be no different from the gradual shifts of



Kegl and her husband, James Shegloff, went on to found two experimental schools - the Escuelita de Condega and Escuelita de Condega - to teach and observe ISN directly. At the schools are careful not to introduce any elements of other sign-language systems; these could possibly contaminate the development of ISN. The language now has an estimated 900 signers.



The implications of a spontaneously-created language are numerous. Prominent linguists such as Noam Chomsky and Steven Pinker have interpreted ISN's birth as evidence supporting their respective theories that human beings possess an innate capacity for complex language. Obviously it would be unethical to perform an experiment to determine if a group of children left to grow up completely isolated will develop a language, but the circumstances under which ISN was born make it a unique case study.

Late prominent American Sign Language researcher William Stokoe, however, believed that the development of ISN may have been influenced along by the children's limited exposure to Spanish and to cued speech signing. Either way, it is incredible that such an elaborate language was improvised and refined by a group of children who had never before heard a single word. ISN's origins - along with the fact that it is thriving after twenty years - stands as a testament to the human natural ambition to express complex ideas, even in the face of significant obstacles.

Article suggested by David.

More information:

[Article: "A Linguistic Big Bang"](#)

[Wikipedia article](#)

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Comments

November 3rd, 2006 at 5:31 am

Joee says:

Phurst!

And Damn Interesting.

November 3rd, 2006 at 7:08 am

nath says:

Remarkable!

I remember finding it suprising that sign language was different than here in the UK. The whole alphabet in the US can be given with one hand - a distinct advantage I would have thought.

One thing which suprised me further was when I was snowed out a couple of American friends who were deaf, they would often talk with one another on the lift whilst wearing mittens - I was baffled. A bi-lingual friend of mine tried to explain it to me; they said that hand conversations were often predicatable in any given situation and a mittened-hand was shapely enough to insinuate a statement and a reply easily, a reply.

Try it for a few days, when you notice someone about to speak, predict what they are going to say.

p.s. Great article by the way, I hope I haven't strayed to far  
subject :)

November 3rd, 2006 at 7:28 am

Christian Flury says:

Thanks for the great article, that's damn interesting, indeed  
particularly intriguing that they developped an apparently qu  
grammar (more of my thoughts on this at

[http://christianflury.com/blog/2006/11/the\\_nicaraguan\\_sign\\_](http://christianflury.com/blog/2006/11/the_nicaraguan_sign_)

Fascinating!

November 3rd, 2006 at 7:48 am

banana989 says:

Very cool ! DI does it again.

November 3rd, 2006 at 9:54 am

just\_dave says:

That is pretty incredible.

I wonder though about, "teachers at the schools are careful  
introduce any elements of other sign-language systems; the  
possibly contaminate the development of ISN." Wouldn't is

students from other language elements actually *prevent* the from developing naturally?

Look at other languages; if there is interaction between spe different languages, terms are shared between them, and b positively affected by such "contamination". There are many other languages that have no equivalent - or inadequate eq English, but terminology from other languages has found co among English speakers.

November 3rd, 2006 at 11:48 am

HarleyHetz says:

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among English speakers."

I would suppose that they are trying not to contaminate this "occurring" experiment. The thinking is probably something like "let them continue on their own and see where they go with it". That would prove more interesting than trying to "teach" them how to sign.

I find it incredibly interesting, and I imagine that by allowing them to do it themselves, the language is probably more efficient than if "teachers" were to teach them things that they knew. Very cool. Kudos to David for suggesting it, and Marisa for the work on it.

November 3rd, 2006 at 1:06 pm

Drakvil says:

Wow. I notice the loophole in the sentence "teachers at the university are careful not to introduce any elements of other sign-languages" - these could possibly contaminate the development of ISN." If they are not exposing them to SIGN language from other systems, I hope they are exposing them to the written forms of language. If not, the ISN can be translated into the written word so they can communicate better with others in their society. It would be sad and tragic if they were up being able to communicate only by signing and were isolated from the rest of society.

Perhaps as a further experiment, they may take all students out of the program after a certain date and start exposing them to ALL forms of communication.

language. See what develops from that... polyglot signers, language that is made up of signs from the total of the rest of just "borrowing" signs from other systems to supplement ISL. English has words like "deja vu" and "maitre'd" thrown in. And everyone in Japan knows what the words "ball", "strike" and "English" mean in the context of baseball.

Good job Marisa, DI!

November 3rd, 2006 at 6:18 pm

junebee says:

Cool. And, I only recently found out that sign language has spoken language.

November 3rd, 2006 at 8:10 pm

Elsie says:

Great article! Makes me want to know even more about this. ISL considered a "pidgin," technically? Or are the children really "speaking" it as a first or native language?

November 4th, 2006 at 4:45 am

denki says:

ISN is something you learn about if you take a linguistics class, or if you take a good linguistics class. What this article doesn't have, which would be great, is examples of the language itself. What is missing is some of the more interesting facets of ISN; there is no development of an alphabet as the children weren't literate enough to "translate" in that manner; almost all (at least when I learned of it) of the language consisted of gestures of nouns and actions. One example we learned was for rolling; a ball was made up of a fist, and the verb roll was the gesture of rotating the hand. The most interesting thing is that to express speed, the gesture itself was sped up; an adverb (such as rapid) would be expressed by the gesture express in a language made up mostly of sight-based input (and I'm liberally; nouns and verbs), as the community is not influenced by other languages to find it necessary to add new symbols for abstract concepts. That is what I can remember about it (and to other linguists, I have forgotten almost every linguistic term, especially if it was Chomsky's). My major was Japanese Linguistics, so I'm really of no help in the real world).

To answer some questions: "Wouldn't isolating ISN students from other language elements actually prevent the language from developing naturally?" Not given their environment, and the content/complexity of their conversations. If you were to introduce new language elements, it would just complicate the language, as it is a simple construct of nouns and verbs. It functions with as little clutter as possible, as the gestures represent something without the need for all the linguistic complexity put in our sentences. The children introduce new words as needed, based on need, and until comes a time when it has matured enough to be "spoken" by a few more thousand, it is unlikely that complex

abstracts will be expressed. To introduce new language elements, new words would mean that the children would have to learn entirely new ways to express them, which might not be possible in ISN, which would require the language to be dropped in favor of a language with no absolutes and, most importantly, wordbase. How would that work in economics? By letting the kids run with it, they will have to come up for those kinds of things on their own (if they ever get around to it). It will create a structure that already coincides with their grammar, so the language will be able to evolve. I really didn't answer that question. You can lead a horse to water, but you can't make him drink it. I think the kids would be willing to learn a language totally foreign to them, but their own works so well, and really, why would they even need to learn more complex things they don't have a need for? (this...string of thought continued with the next question)

"Is ISN considered a 'pidgin'?" Nope. It's a native language. If there isn't any real outside sign influence, they don't really incorporate outside signs as it is too...hmmm...not complicated, just "simplified". It would be the same as comparing early Kanji to late Kanji. Early Kanji (reallllllly early) was more pictographic; a tree looked like a tree. People unfamiliar with the spoken language could see the "tree" and say "oh it's a tree." If someone who used early Kanji saw late Kanji, they would wonder why the tree looks so different, because now not everyone could see it. Same kinda thing with this language; why use a complex form when a simple one works?

Apologies for just blabbing and not making any sense, I have been thinking about this while and I don't feel like finding sources to support my claims.



re-learning linguistics, I should probably do that too. Oh, and they are really, really DI. It doesn't really sound like it I know, but the *why* we speak and why we speak certain things at certain times gets real fun; go social linguists!

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