Children Give Language Its Fundamental Features

At a school in Managua, Nicaragua, deaf children are communicating in a language that has evolved from sign language into a formal language of their own that has evolved at lightning speed over the last 35 years. And yet this sign language has remarkable similarities to other spoken languages, researchers say. By studying the similarities suggest that children give language its most fundamental, universal features just by the way they learn it.

As soon as they can sound to the untrained ear, all languages share fundamental features. While some argue that these traits come hard-wired in the human brain, others argue that they developed gradually over generations. “It is an evolutionary upside-down, in the sense that the children lead the way. The children are assuming properties that are traits of language, not the older adults,” Senghas says.

The study by Ann Senghas, a Barnard faculty member in the Department of Psychology, does not suggest the similarities are due to the way in which languages are learned. Instead, the researchers suggest that even if children aren’t born with a mental blueprint for language (as Noam Chomsky, for example, has argued), these traits are a specific approach to learning that can turn a simple communication system into a true language in a surprisingly short period of time.

Researchers compared the ways that deaf children and adults used Nicaraguan Sign Language (NSL) to tell a story. The signers learned the language at different stages of its brief history. The older signers developed actions using pantomime-like gestures, but younger generations carved the gestures into simpler, more practiced words that follow rules fundamental to all languages. These findings suggest that as subsequent generations of children have learned NSL, they have turned what was once more like gesture into a true language.

“We’re seeing evolution in action, but what’s evolving here isn’t an organism, it’s a language system,” Senghas said.

Unlike many of the participating clients, this small company has three locations in New York and has been in business for 20 years. The business began by inventing a new ingredient for the founders’ idea to open a commissary to consolidate the baking, increase capacity and lower costs. But soon, the team began to look at the company’s overall strategic direction. They put together a business plan and offered operational improvements and ways to increase production.

The team recommended that the idea of a commissary was pre-mature and that the company should instead make some basic operational improvements to increase profitability. Over the next few years, the team sees the Little Pie Company opening two more small shops in Manhattan. Although the founder officially left the company in April, Monnie is still working with the company. “I see enormous poten-tial,” he says.

Reflecting on the program as a whole, Schmid says, “It is incredibly rewarding to work closely with small businesses because our knowledge and skills can make enormous contributions. Fre- quently, there are one-person organizations, and student groups can really help to further their busi-ness and see an impact in a short period of time.”

Columbia’s Business School has long been syn-chronous with Fortune 500 companies, consoli-dating firms and supporting the direct teaching of more than 100 students, assisting local small business owners and nonprofits has become an eye-opening and rewarding part of their education.

Through the Small Business Consulting Program, entrepre-

neurs, small businesses and non-profits in New York are matched with teams of business school stu-
dents who offer their consulting services pro bono for several months during the academic year.

Jake Troy, Business’05, and his team worked with Harlem World Sports Clubs, an upscale fitness center opening in Harlem this spring at 115 Street and Fifth Avenue. The team helped the club owners create a business plan that included a description of the market, competi-tors, financial information, identifi-
ation of specific opportunities and a plan for approaching the market. “This club is more focused than Equinox or New York Sports Clubs,” says Troy. “They met with us on our team that has a plan for working with North General Hospital to offer physical therapy to patients. They are also catering their spa services to the local residents.”

Business students interact with the partnership. “Harlem World Sports benefited in that the ideas instilled during our business development, says Guydi Fuller, co-founder. “We were very impressed with the team at Columbia. Our club team really took the time to inves-tigate our needs and strengths and work with us. They took the time of streamlining our business plan to make it more fluent to investors.”

This has already stuck a key with a number of angel investors and lenders.

The students also found the rela-tionships rewarding. “Overall the project has offered us a great opportunity to work with genetic people who are starting a business and to learn the chal-lenges they face,” says Troy. “It also allowed us to combine our market-
ing, strategy and finance classes and skills to create a business plan.”

Harlem World is one of 17 projec-ts completed last year; half of them for-profit businesses, half nonprofits. During that time, more than 50 groups applied for assistance. A similar number applied this year. This year’s pro-

gram began on Nov. 1, when clients seeking assistance set up booths in Warren Hall, creating a trade show environment. Students then had the opportunity to meet potential clients.

Needs vary by client. Some are seeking assistance writing or refin-ing their business plan or putting the plan in place. Others need to develop a strategic vision, create a marketing plan or identify and retain customers.

All of the projects provide a great client experience for students for streamlining their consulting skills and the opportunity to take hard prob-lems and develop solutions,” says Lindsay Schmid, Business’05, who assisted a Business School alumna in starting a cooking school with a social element.

Ben Monnie, Business’05, agrees. “Often business school stu-dents are focused on large corpora-tions and forget the countless opportunities to be creative and have a high impact in a small busi-

ness environment.”

Monnie’s team worked with the Little Pie Company, a bakers and implement a business plan and financial model for the company.

For federal agencies such as the National Institutes of Health, the National Science Foundation, the National Aeronautics and Space Administration, the National Oceanic and Atmospheric Adminis-tration and the Department of Education, fiscal year 2005 funding continues through Nov. 20 at the same level as the past federal fiscal year, December 2004, and will likely have an effect on funding levels.

Immediately prior to the recess for the elections, Congress also passed a corporate tax package, HR 4520. Included within the package was a provision placing limits on gifts of patents and other intellectual property. This provi-sion was included to address a per-
ceived overvaluation of some of these donations.