

## ANN SENGHAS

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### Education

Ph.D. Massachusetts Institute of Technology, 1995  
Brain and Cognitive Sciences  
Dissertation: *Children's contribution to the birth of Nicaraguan Sign Language*  
Advisor: Steven Pinker  
Committee: Susan Carey, Ken Hale, Judy Kegl, Kenneth Wexler  
Student Linguistic Society of America Summer Linguistic Institute, 1991, 1995  
Focus: sign language linguistics, grammaticalization, gesture  
BA Smith College, 1986, *cum laude*  
Major: French Minor: Psychology  
Special Student Université de Paris IV (Sorbonne), 1984-1985

### Honors and Awards

Award R01 DC05407-01 *The creation and enhancement of a language by children*  
from The National Institutes of Health, 2002-2007.  
Barnard Seniors of Color, faculty who made a difference, 2002  
NY Higher Education Opportunities Program (HEOP), recognized faculty, 2002  
National Academies of Science and Engineering, *Frontiers of Science* Fellow, 2000  
NIH Postdoctoral Fellowship, University of Rochester, 1995-1998  
Linguistic Society of America Summer Institute Fellowship 1995  
Spencer Foundation Dissertation Fellowship 1994-1995  
American Association of University Women American Fellowship 1994-1995 (declined)  
Edward J. Poitras Fellowship, MIT 1994  
Angus MacDonald Award for Excellence in Teaching, MIT 1993  
NIMH Development of Cognition Training Award 1993-1994  
NIH National Research Service Award 1992-1993  
Linguistic Society of America Summer Institute Fellowship 1991  
NIMH Development of Cognition Training Award 1990-1991  
National Science Foundation Graduate Fellowship Honorable Mention 1990

### **Association Memberships**

American Psychological Association  
American Psychological Society  
Linguistic Society of America  
American Association of University Women  
American Educational Research Association

### **Professional Service**

Reviewer for grant proposal to the European Science Foundation EUROCORES Program on the Origin of Man, Language, and Languages, 2001  
Occasional reviewer for *Cognition*, Cambridge University Press, *Journal of Experimental Psychology: Human Perception and Performance*, *Pragmatics*  
Annual reviewer for the Society for Research on Child Development (SRCD) 2001-, Boston University Conference on Language Development (BUCLD) 2000-  
Member of Editorial Board of the *Annual Review of Language Acquisition* (ARLA) 1999-

### **Dissertation Committee Member**

Jennie Pyers, Department of Psychology, University of California, Berkeley, present  
Kimberly Stender, Teachers College, Columbia University, Spring 2002  
Georgene Feldman, Teachers College, Columbia University, Fall 2001  
Kay Kitzen, Teachers College, Columbia University, Spring 2001

### **Positions in Teaching and Research**

#### **BARNARD COLLEGE AT COLUMBIA UNIVERSITY**

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1999-present Assistant Professor, Department of Psychology.  
Presently assuming tenure-track position in teaching and research. Teaching *Introduction to Psychology* (30 students), *Developmental Psychology (with Laboratory)* (80 students), and a graduate seminar in *Language Acquisition* (15 students). Directing research laboratory in language acquisition and language change, primarily studying the emergence of Nicaraguan Sign Language.

#### **MAX PLANCK INSTITUTE FOR PSYCHOLINGUISTICS**

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1998-1999 Research Staffmember, Language and Cognition research group, directed by Stephen Levinson and Language Acquisition research group, directed by Wolfgang Klein, MPI for Psycholinguistics, Nijmegen, The Netherlands.  
Participated in ongoing cross-linguistic research projects on spatial reference, argument structure, and gesture, contributing own field data from research on Nicaraguan Sign Language.

#### **UNIVERSITY OF ROCHESTER**

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1995-1998 Postdoctoral Fellow with Elissa Newport and Ted Supalla, Center for the Sciences of Language, Department of Brain and Cognitive Sciences.  
Researched sign language acquisition and structure, in the context of language acquisition and creolization. Investigated the syntactic and morphological changes in the first two generations of Nicaraguan Sign Language, and grammatical structure in Nicaraguan adult homesign systems.

1997-1998 Instructor, Department of Brain and Cognitive Sciences.  
Taught *Laboratory Methods in Development and Learning* and *Language Acquisition* courses at the undergraduate level.

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MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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1990-1995 Ph.D. Student, Department of Brain and Cognitive Sciences.  
Advisor: Steven Pinker.  
Studied psycholinguistics, language acquisition, and cognitive development.  
Wrote dissertation on the emergence of Nicaraguan Sign Language.

Spring 1995 Teaching Assistant with Susan Carey and Gregg Solomon, *Cognitive Development*, Department of Brain and Cognitive Sciences.  
Led one weekly recitation section of 15 students. Prepared and delivered lectures for language acquisition segment of the course.

Fall 1992 Teaching Assistant with Jeremy Wolfe, *Introduction to Psychology*, Department of Brain and Cognitive Sciences.  
Led two weekly recitation sections of 15 students each.

Fall 1991 Teaching Assistant with Susan Carey, *Psychology of Gender*, Department of Brain and Cognitive Sciences.  
Assisted in selection of readings and development of syllabus. Led one weekly recitation section of 20 students.

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SWARTHMORE COLLEGE

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1989-1990 Research Assistant with Judy Kegl, Program in Linguistics.  
Studied early language structures appearing in an original sign language emerging among deaf children in Nicaragua. Included three months of field work in Managua, Nicaragua. Videotaped natural and elicited signing, analyzed videotapes, presented data at a conference.

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HARVARD UNIVERSITY

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1986-1989 Research Assistant with Sandra Waxman, Department of Psychology.  
Coordinated research projects on children's conceptual and linguistic development. Assisted in experimental design, tested children in categorization and naming tasks. Conducted data analyses, supervised undergraduate assistants preparing stimuli and coding child responses.

1987-1989 Research Assistant with Peter Gordon, Department of Psychology.  
Researched the cognitive processes underlying speech recognition, particularly the effect of coarse-grained speech features. Prepared artificial and natural speech stimuli, analyzed language samples, supervised subject testing, performed statistical analyses.

1986-1987 Research Assistant with Kathleen McCartney, Department of Psychology.  
Collaborated in a longitudinal study on the bi-directionality of effects in language acquisition. Developed coding system for mother-child discourse, supervised undergraduate assistants coding discourse, conducted data analyses.

WELLESLEY COLLEGE

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- 1986 Research Assistant with Virginia V. Valian, Department of Psychology. Researched the effect of negative evidence in language acquisition. Assisted in the development of a coding system for grammaticality and role of utterances, prepared stimuli for experiment on semantic roles and agency.

SMITH COLLEGE

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- 1985-1986 Undergraduate Research Assistant with Jill de Villiers and Peter de Villiers, Department of Psychology. Assisted in studies of oral deaf children's acquisition of the past tense in English, and hearing children's acquisition of wh-question sentence structure. Tested children, coded children's responses, entered data.
- 1985-1986 French Tutor, Intensive Beginning French, Department of French. Tutored six college students in intensive beginning French, two hours a day.

**Publications**

- Senghas, R. J., A. Senghas, and J. E. Pyers. (In press). The emergence of Nicaraguan Sign Language: Questions of development, acquisition, and evolution. In J. Langer, S. T. Parker, & C. Milbrath (Eds.), *Biology and Knowledge revisited: From neurogenesis to psychogenesis*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Senghas, A. (2003). Review of "Language, Cognition, and the Brain: Insights from Sign Language Research" by Karen Emmorey. *Sign Language and Linguistics*, **6:1**, 105-110.
- Senghas, A. (2003). Intergenerational influence and ontogenetic development in the emergence of spatial grammar in Nicaraguan Sign Language. *Cognitive Development*, **18**, 511-531.
- Senghas, A., A. Ozyürek, and S. Kita. (2002). Encoding motion events in an emerging sign language: From Nicaraguan gestures to Nicaraguan signs. In A. Baker, B. van den Bogaerde & O. Crasborn (Eds.) *Cross-linguistic perspectives in sign language research. Selected papers from TISLR 2000*. Hamburg: Signum Press.
- Saffran, J. R., A. Senghas, and J. C. Trueswell. (2001). The acquisition of language by children. *Proceedings of the National Academy of Sciences*, **98: 23**, 12874-12875. [authors listed alphabetically]
- Senghas, A. (2001). Spatial and temporal coding of Nicaraguan Sign Language in MediaTagger: Documenting three dimensions with a two-dimensional tool. *Sign Language and Linguistics*, **4: 1/2**, 229-240 (revised reprint of Senghas, 1999).
- Senghas, A., and M. Coppola. (2001). Children creating language: How Nicaraguan Sign Language acquired a spatial grammar. *Psychological Science*, **12, 4**: 323-328.
- Snyder, W., A. Senghas, and K. Inman. (2001). Agreement morphology and the acquisition of noun-drop in Spanish. *Language Acquisition*, **9 (2)**: 157-173.

- Senghas, A. (2000). The development of early spatial morphology in Nicaraguan Sign Language. In S. C. Howell, S. A. Fish, and T. Keith-Lucas, (Eds.), *BUCLD 24: Proceedings of the 24th Annual Boston University Conference on Language Development*. Boston: Cascadilla Press, 696-707.
- Senghas, A. (1999). Spatial and temporal coding of Nicaraguan Sign Language in MediaTagger: Documenting three dimensions with a two-dimensional tool. In *Intersign: Sign Linguistics and Data Exchange, European Science Foundation Scientific Network*, E. Pizzuto and B. Bergman, (Eds.), *Section on Morphosyntax: Text Corpora and Tagging*, <http://www.sign-lang.uni-hamburg.de/intersign/authorindex.html>.
- Kegl, J., A. Senghas, and M. Coppola. (1999). Creation through contact: Sign language emergence and sign language change in Nicaragua. In M. DeGraff, (Ed.), *Language Creation and Language Change: Creolization, Diachrony, and Development*. Cambridge: MIT Press, 179-237.
- Senghas, A., M. Coppola, E. L. Newport, and T. Supalla. (1997). Argument structure in Nicaraguan Sign Language: The emergence of grammatical devices. In E. Hughes, M. Hughes, and A. Greenhill (Eds.), *BUCLD 21: Proceedings of the 21st Annual Boston University Conference on Language Development*. Boston: Cascadilla Press, 550-561.
- Snyder, W., and A. Senghas. (1997). Agreement morphology and the acquisition of noun-drop in Spanish. In E. Hughes, M. Hughes, and A. Greenhill (Eds.), *BUCLD 21: Proceedings of the 21st Annual Boston University Conference on Language Development*. Boston: Cascadilla Press, 584-591.
- Waxman, S. R., A. Senghas, and S. Benveniste. (1997). A cross-linguistic examination of the noun-category bias: Its existence and specification in French- and Spanish-speaking preschool-aged children. *Cognitive Psychology*, **32**: 183-218.
- Senghas, A. (1995). Children's contribution to the birth of Nicaraguan Sign Language. Ph.D. dissertation, Massachusetts Institute of Technology. Distributed by MIT Working Papers in Linguistics.
- Senghas, A. (1995). Conventionalization in the first generation: a community acquires a language. *USD Journal of Contemporary Legal Issues*, **6**, Spring, 1995.
- Senghas, A. (1995). The development of Nicaraguan Sign Language via the language acquisition process. In D. MacLaughlin & S. McEwen (Eds.), *BUCLD 19: Proceedings of the 19th Annual Boston University Conference on Language Development*. Boston: Cascadilla Press, 543-552.
- Senghas, A. (1994). Nicaragua's lessons for language acquisition. *Signpost: The Journal of the International Sign Linguistics Association*, **7:1**, spring 1994.
- Kegl, J., and A. Senghas. (1993). The birth of a language: The case of Idioma de Signos Nicaragüense. In Ferreira-Brito, L. (Ed.), *Proceedings of the II Congresso Latino-Americano de Bilingüismo para Surdos: Língua Oral - Língua de Sinais*, UFRJ Faculdade de Letras, Rio de Janeiro, Brazil, September, 1993.
- Waxman, S. R., and A. Senghas. (1992). Relations among word meanings in early lexical development. *Developmental Psychology*, **28**: 862-873.

## **Presentations at Conferences and Meetings**

- Senghas, A. (2004). Children's role in the emergence of Nicaraguan Sign Language. Delivered in the symposium of Language Birth, at the Annual Meeting of the American Association for the Advancement of Science (AAAS), Seattle, WA, February 2004.
- Senghas, A. (2003). Emerging spatial devices in Nicaraguan Sign Language. Delivered at the Conference on Spatial Language and Spatial Cognition, Johns Hopkins University, Baltimore, MD, September 2003.
- Senghas, A. (2003). The differentiation of grammatical elements in Nicaraguan Sign Language over historical and ontogenetic developmental timelines. Delivered at the Project for Explaining the Origin of Humans, UCSD, October 2003.
- Senghas, A. (2003). From gesture to grammar: how children are creating Nicaraguan Sign Language. Delivered at the Society for Research on Child Development (SRCD), Tampa, FL, April 2003.
- Senghas, A. (2002). From gestures to sign language in the encoding of motion events. Delivered at the International Congress for the Study of Child Language (IASCL), Madison, WI, July 2002.
- Senghas, A. (2002). The emergence of compositional structure in Nicaraguan Sign Language. Delivered at the Evolution of Language Conference, Cambridge, MA, March 2002.
- Senghas, A. (2001). The emergence of grammatical devices for indicating location and orientation in Nicaraguan Sign Language. Delivered at the Boston University Conference on Language Development, November, 2001.
- Senghas, A. (2001). The effect of stages of language acquisition on the development of Nicaraguan Sign Language: How minds mold a language. Delivered in an invited symposium at the Annual Meeting of the Jean Piaget Society, Berkeley, CA, May, 2001.
- Senghas, A. (2001). From symbols to syntax: the creation of a new language by deaf children. Invited talk at the Annual Meeting of the National Academy of Sciences, Washington, DC., April, 2001.
- Senghas, A. (2000). From symbols to syntax: the creation of a new language by deaf children. Invited speaker at the Twelfth Annual Frontiers of Science Symposium, the National Academy of Sciences, Irvine, CA, November, 2000.
- Senghas, A., A. Ozyürek, and S. Kita. (2000). Encoding motion events in an emerging sign language: From Nicaraguan gestures to Nicaraguan signs. Delivered at the International Conference on Theoretical Issues in Sign Language Research (TISLR), Universiteit van Amsterdam, Amsterdam, the Netherlands, July, 2000.
- Senghas, A. (2000) Evolution of grammar: The grammaticization of Nicaraguan Sign Language by sequential iterations of native acquisition. Delivered at the Evolution of Language Conference, Paris, France, April 4-6, 2000.
- Senghas, A. (1999). The Development of Early Spatial Morphology in Nicaraguan Sign Language. Delivered at the Boston University Conference on Language Development, November, 1999.

- Senghas, A. (1999). Spatial and temporal coding of Nicaraguan Sign Language in MediaTagger: Documenting three dimensions with a two-dimensional tool. Delivered at the Workshop on Morphosyntax: Text corpora and tagging. Intersign: Sign Linguistics and Data Exchange, European Science Foundation Scientific Network. Certosa di Pontignano, Siena, Italy, March 12-15, 1999.
- Coppola, M., E. L. Newport, T. Supalla, and A. Senghas. (1998). Aspect and number marking in family-based gesture systems in Nicaragua. Delivered at the International Conference on Theoretical Issues in Sign Language Research (TISLR), Gallaudet University, Washington, DC., November, 1998.
- Coppola, M., A. Senghas, E. L. Newport, and T. Supalla. (1997). The emergence of grammar: Evidence from family-based sign systems in Nicaragua. Presented at the Boston University Conference on Language Development, Boston, MA.
- Senghas, A., M. Coppola, E. L. Newport, and T. Supalla. (1996). Argument structure in Nicaraguan Sign Language: The emergence of grammatical devices. Delivered at the Boston University Conference on Language Development, November, 1996.
- Snyder, W., and A. Senghas. (1996). Agreement morphology and the acquisition of noun-drop in Spanish. Delivered at the Boston University Conference on Language Development, November, 1996.
- Senghas, A. (1996). The Creolization of Agreement in Nicaraguan Sign Language. Delivered at the International Conference on Theoretical Issues in Sign Language Research (TISLR), Université de Québec à Montréal, Montreal, Quebec, September, 1996.
- Senghas, A. (1994). The development of Nicaraguan Sign Language via the language acquisition process. Delivered at the Boston University Conference on Language Development, November, 1994.
- Senghas, R. J., J. Kegl, and A. Senghas. (1994). Creation through contact: The development of a Nicaraguan Deaf community and the nativization of its language. Delivered at the 2nd International Conference on Deaf History, Hamburg, Germany, October, 1994.
- Senghas, A. (1994). Conventionalization in the first generation: A community acquires a language. Delivered at the Conference on the Crisis of Text, Institute for Law and Systems Research, University of San Diego, San Diego, CA, August, 1994.
- Kegl, J., and A. Senghas. (1993). The birth of a language: The case of Idioma de Signos Nicaragüense. Delivered at the II Congresso Latino-Americano de Bilingüismo para Surdos: Língua Oral - Língua de Sinais, UFRJ Faculdade de Letras, Rio de Janeiro, Brazil, September, 1993.
- Senghas, A., J. J. Kim, S. Pinker, and C. Collins. (1991). Plurals-inside-compounds: Morphological constraints and their implications for acquisition. Delivered at the Boston University Conference on Language Development, October, 1991.
- Kegl, J., and A. Senghas. (1991). Cross-linguistic comparison via the elicitation of controlled narratives: verbal constructions in Nicaraguan Sign Language and American Sign Language. Delivered (by A. S.) at the Annual Meeting of the Linguistic Society of America, Chicago, IL, January, 1991.

Waxman, S. R., and A. Senghas. (1990). Relations among word meanings in early lexical development. Delivered at the International Conference of Infancy Studies (ICIS), Montreal, Quebec, April, 1990.

### **Invited Talks**

Senghas, A. (2003). From gestures to grammar: How children are creating Nicaraguan Sign Language. Invited lecture, Institute for Research in Cognitive Science (IRCS) Colloquium Series, December 2003.

Senghas, A. (2003). The differentiation of grammatical elements in Nicaraguan Sign Language over historical and ontogenetic developmental timelines. Invited lecture, Speaker Series, Center for Behavior, Evolution, and Culture, University of California, Los Angeles (UCLA), November 2003.

Senghas, A. (2003). How learning creates language: Evidence from the emergence of Nicaraguan Sign Language, Invited lecture, Laboratory for Developmental Studies, Department of Psychology, Harvard University, October 2003.

Senghas, A. (2003). From gesture to grammar: how children are creating Nicaraguan Sign Language. Colloquium on Language and the Brain, University of Wisconsin, Madison, February 2003.

Senghas, A. (2003). The emergence of grammatical devices for indicating location and orientation in Nicaraguan Sign Language, Invited Lecture, Workshop of the Sign Language Research Group, Max Planck Institute for Psycholinguistics, Nijmegen, the Netherlands, December 2002.

Senghas, A. (2003). From gesture to grammar: how children are creating Nicaraguan Sign Language. Invited lecture, Colloquium Series of the Center for the Study of Human Development, Brown University, October 2002.

Senghas, A. (2002). From gesture to grammar: The emergence of structure in Nicaraguan Sign Language. Invited lecture, Seminar in Sign Language Research, Department of Cognitive Science, University of California, San Diego, October 2002.

Senghas, A., A. Ozyürek, and S. Kita. (2002). Encoding motion events in an emerging sign language: From Nicaraguan gestures to Nicaraguan signs. Invited lecture, Max Planck Institute for Psycholinguistics, Nijmegen, the Netherlands, January 2002.

Senghas, A., A. Ozyürek, and S. Kita. (2002). The emergence of devices for indicating location and orientation in Nicaraguan Sign Language. Invited lecture, Max Planck Institute for Psycholinguistics, Nijmegen, the Netherlands, January 2002.

Senghas, A. (2001). From symbols to syntax: How children created Nicaraguan Sign Language. Invited lecture, Cognitive and Linguistic Sciences Colloquium Series, Wellesley College, November 2001.

Senghas, A. (2001). From gestures to morphemes: the emergence of grammar in Nicaraguan Sign Language. Invited lecture, Developmental Psychology Speaker Series, University of Connecticut, November 2001.

- Senghas, A. & Pyers, J. (2001). Does linguistic complexity affect cognitive development? Evidence from an emerging sign language in Nicaragua. Invited lecture, Psychology Colloquium Series, Smith College, April 2001.
- Senghas, A. (2001). From Symbols to Syntax: How Nicaraguan Sign Language Acquired a Spatial Grammar, Invited lecture, CUNY Linguistics Colloquium, Graduate Center of City University of New York, March 2001.
- Senghas, A. (2000). From Symbols to Syntax: How Nicaraguan Sign Language Acquired a Spatial Grammar. Invited lecture, Language Acquisition, Modeling, and Processing speaker series, Rutgers University, December 2000.
- Senghas, A. (2000). How learning shapes a language: Spatial constructions in the second cohort of Nicaraguan signers. Invited presentation, The La Jolla Initiative on Explaining the Origins of Humans, La Jolla, CA, November 2000.
- Senghas, A. (2000). Sciences within the Liberal Arts Curriculum. Panel Discussant, Through the Lens of a Seven Sisters Education: The Seven Sisters Conference, Vassar College, March 24-26, 2000.
- Senghas, A. (2000). Emergence and convergence in a growing grammar: The birth of Nicaraguan Sign Language. Invited lecture, SUNY Stonybrook Linguistics Colloquium, February 2000.
- Senghas, A. (1999). The changing structure of Nicaraguan Sign Language: Implications for the education of deaf children. Invited lecture, Ministry of Education, Culture, and Sports (MECD), Managua, Nicaragua, June 1999.
- Senghas, A. (1999). The emergence of spatial morphology in Nicaraguan Sign Language. Invited lecture, Sign Language and Deaf Studies, City University, London, April 1999.
- Senghas, A. (1998). The emergence of grammatical structure via the language acquisition process in Nicaraguan Sign Language. Max Planck Institute for Psycholinguistics Luncheon Series Lecture, Nijmegen, The Netherlands, May 1998.
- Senghas, A. (1996). The emergence of structure in a new language: The verb phrase in Nicaraguan Sign. Invited lecture, University of Connecticut Lunchtime Talk Series in Psycholinguistics, Department of Linguistics, Storrs, CT, October 1996.
- Senghas, A. (1996). The emergence of Nicaraguan Sign Language in Managua: An overview. Invited lecture, Centro de Investigación y Desarrollo de la Costa Atlántica (Center for Research and Development of the Atlantic Coast), Managua, Nicaragua, January 1996.
- Senghas, A. (1995). The birth of Nicaraguan Sign Language: The emergence of noun agreement. Yale University Linguistics Colloquium Series, New Haven, CT, November 1995.
- Senghas, A. (1995). Language acquisition. Two guest lectures in an undergraduate course on Child Development, Harvard University, Cambridge, MA.
- Senghas, A. (1994). The development of Nicaraguan Sign Language via the language acquisition process: The emergence of verb inflection. Psychology Colloquium Series at Smith College, Northampton, MA, December 1994.

Bickerton, D., and A. Senghas. (1994). The birth of languages: Historical and psycholinguistic studies converge. MIT Cognitive Science Center Colloquium Series, September 1994.

Kegl, J., A. Senghas, and R. J. Senghas. (1993). The birth and development of Nicaraguan Sign Language. Invited talk and seminar given to all instructors in Deaf Education at the Ministry of Education, Managua, Nicaragua, August 3-5, 1993.

### **Conference Posters**

Senghas, A. (2000). Differences between first- and second-cohort Nicaraguan signers in communicating location and orientation. Poster presented at the International Conference on Theoretical Issues in Sign Language Research (TISLR), Universiteit van Amsterdam, Amsterdam, the Netherlands, July 2000.

Senghas, A. (1995). The birth of Nicaraguan Sign Language: The emergence of verb inflection. Poster presented at the Annual Meeting of the American Educational Research Association (AERA), San Francisco, CA, April 1995.

Senghas, A., J. Kegl, R. J. Senghas, and M. Coppola. (1994). Sign language emergence and sign language change: children's contribution to the birth of a language. Poster presented at the Annual Meeting for the Linguistic Society of America (LSA), Boston, MA, January 1994.

Senghas, A., J. Kegl, and R. J. Senghas. (1993). The role of language acquisition processes in the emergence of a new sign language. Poster presented at Designs of Nature: The Sixth Annual Graduate and Postdoctoral Minisymposium, Rutgers University, Newark, NJ, November 1993.