

CURRICULUM VITAE--- Philip Lieberman

1.

Philip Lieberman
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3. Education B.S. in Electrical Engineering, M.I.T. M.S. in Electrical Engineering, M.I.T.

1958 Ph.D. Linguistics, M.I.T. 1966 Dissertation title: "Intonation, Perception and Language"

4. Professional Appointments 1957-59 Research Assistant, Research Laboratory of Electronics,

Massachusetts Institute of Technology 1958-62. Lieutenant, United States Air Force: 1962-67

Research Staff, Speech Research Branch, Air Force Cambridge Research Laboratories 1967.

Research Staff Member, Haskins Laboratories. Associate Professor, University of Connecticut;

Professor, 1969; Acting Head, Department of Linguistics 1973-74 1974. Professor, Brown

University

1975-77, 1981-86. Chairman, Department of Linguistics 1988 - 1991, Chairman, Department

Cognitive and Linguistic Sciences

1992 -1997 George Hazard Crooker University Professor

1997 -- Fred M. Seed Professor of Cognitive and Linguistic Sciences

1999 -- Professor of Anthropology

5. Completed Research

a. BOOKS

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Select COLLECTIONS then SPECIAL COLLECTIONS fields and then scroll to Lieberman collections which are grouped by region.

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B. CHAPTERS IN BOOKS:

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C. REFEREED JOURNAL ARTICLES (INCLUDING ONES REPRINTED IN BOOKS):

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Lieberman, P., Chatillon, M., Schupack, H. and R.H. Meskill, 1985. "Phonetic speech perception deficits in dyslexia." *Journal of Speech and Hearing Research* 28:480-486. Lieberman, P., 1985. "On the Evolution of Human Syntactic Ability: It's Pre-adaptive Bases-Motor Control and Speech." *Journal of Human Evolution*. 14:657-668. Lieberman, P. 1986. On Bickerton's Review of the Biology and Evolution of Language. *American Anthropologist*. 88:701-703. Lieberman, P. 1986. Some Aspects of Dimorphism and Human Speech, *Human Evolution* 1:67-75. Reprinted in M. Pickford and B. Chiarelli (eds.), *Sexual Dimorphism in Living and Fossil Primates*. Firenze: (FI) Sedicesimo, 1986. Lieberman, P., 1986. "Alice in declinationland-A reply to Johan't Hart." *Journal of the Acoustical Society of America*. Lieberman, P., 1987. "A reply to Jacques Mehler's 'Review of the The Biology and Evolution of Language'." *Journal of the Acoustical Society of America*. 80:15321-1522. Sereno, J.A. and P. Lieberman, 1987. "Developmental aspects of lingual coarticulation." *Journal of Phonetics*. 15:247-257. Sereno, J.A., Baum S.R., Marean, G.C. and P. Lieberman, 1987. "Acoustic analyses and perceptual data on anticipatory labial coarticulation in adults and children." *Journal of the Acoustical Society of America*. 81:512-519. Lieberman, P., 1988. "On Human Speech, Syntax and Language." *Human Evolution*. 3:3-18. Lieberman, P., 1989. "Comment on Gardner and Gardner-Feedforward vs. feedbackward: An ethological alternative to the law of effect." *Behavioral and Brain Sciences*. Lieberman, P., Freidman, J. and L.S. Feldman 1990. "Syntax comprehension deficits in Parkinson's disease." *The Journal of Nervous and Mental Disease*. 178: 360-365. Lieberman, P., J. T. Laitman, J. Reidenberg, P. Gannon, and K. Landahl. 1990. "Folk Physiology and Talking Hyoid Bones -- A reply to John Marshall and Arensberg." *Nature*. 342:486-487. Lieberman, P. 1991. "Preadaptation, natural selection and function." *Language & Communication*, 11: pp. 63-65. Lieberman, P. 1992. "On Neanderthal Speech and Neanderthal Extinction." *Current Anthropology*, 33:409-410. Lieberman, P., Kako,

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Cymerman A., P. Lieberman, J. Hochstadt, P. B. Rock, G. E. Butterfield, and L. Moore. 1999. Speech motor control and the development of acute mountain sickness. *U. S. Army Research Institute of Environmental Medicine, Technical report No. T99-5*, February 1999 AD A360764, Alexandria Va: Defense Technical Information Center

E. BOOK REVIEWS

Lieberman, P., 1983. "Review of Quest for Fire." *American Anthropologist*. Lieberman, P., 1983. "Review of The Clever Hans Phenomenon: Communication with People. T.A. Sebeok and R. Rosenthal (eds.)." *American Journal of Physical Anthropology*.

Lieberman, P., 1992. "Review of the The origins of Language -- an educational film." *American Anthropologist* Lieberman, P. 1993. Review of Language and Species. *American*

- Anthropologist*. Lieberman, P. 1993. Ape Language Research and the Evolution of Language. (review of Ape Language by Joel Wallman, Cambridge: Cambridge University Press, 1992. 191 pp.) *Current Anthropology* 34:327-328.
- Lieberman, P. 1996. Review of Tools, Language, and Cognition in Human Evolution. Eds. K.R. Gibson and T. Ingold, New York: Cambridge University Press, 1995. *Journal of Human Biology*.
- Lieberman, P. 1999. Review of Human evolution, language and mind. W. Noble and I. Davidson. Cambridge: Cambridge University Press. *Anthropological Linguistics*, 41:549-552.
- Lieberman, P. 2000. Review of The origins of complex language: An enquiry into the evolutionary beginnings of sentences, syllables and truth. A. Carstairs-McCarthy. Oxford: Oxford University Press. *American Anthropologist* 102:21-22.
- Lieberman, P. 2003. Review of The evolutionary emergence of language: social functions and the origins of linguistic form. C. Knight, M. Studdert-Kennedy and J. R. Hurford eds, Cambridge: Cambridge University Press. *Journal of Linguistics* 39:1-7
- Lieberman, P., A. Morey, J. Hochstadt, M. Larson, and S. Mather. 2005. Mount Everest: A space-analog for speech monitoring of cognitive deficits and stress. *Aviation, Space and Environmental Medicine*. 76:198-207.
- Lieberman, P. 2005. review of *From hand to mouth: The origins of language*. Michael C. Corballis (Princeton and Oxford: Princeton University Press, 2002) *Annals of Biology*
- Lieberman, P. 2007. Review of Steven Pinker, *The stuff of thought*, New York: Viking by, *New Scientist*, 6 October 2007, p. 57.

F. ABSTRACTS NOT PUBLISHED AS REVIEWED PAPERS:

- Lieberman, P. Ryalls, J.H. and S. Rabson, 1982. "On the Early Imitation of Intonation and Vowels." *7th Annual Boston University Conference of Language Development Meeting Handbook*, p. 34.
- Lieberman, P. and C-Y Tseng. 1994. Subcortical pathways essential for speech, language and cognition: Implications for hominid evolution. *American Journal of Physical Anthropology*, Suppl. 16, 93:130.
- Lieberman, D. E., R. C. McCarthy, K. Hiiemse, P. Lieberman and J. B. Palmer. (1998) New estimates of fossil hominid vocal tract dimensions. Paleoanthropology Society Meeting, Seattle WA, March) In *Journal of Human Evolution* 34:A12-13

G. INVITED LECTURES AFTER 1978. February, 1978 - Primate Communication: New Data, Washington, DC, meeting of American Association for the Advancement of Science. April, 1978 - Evolution of Language, Northern Illinois University, DeKalb, Illinois. June, 1978 - Vowel development in infants, N.I.H. Conference on speech and language development. Bethesda, MD. October, 1978 - Primate Communication and the Evolution of Human Language, Duke University, North Carolina. March, 1979 - Evolution of Speech, International Symposium on Speech, Edinburgh, Scotland. August, 1979 - Invited Faculty for first international convening on

the Linguistic Institute of the Linguistics Society of America, Salzburg, Austria. October, 1979 - Development of Speech, Indiana University conference of sensory development of infants. November, 1979 - Physiology of Vocal Measurements of Stress, Meeting of Academy for the Forensic Application of Communication Sciences. April, 1981 - On the Evolution of Human Speech. University of California at Berkeley, University of California at Davis. March 29, 1982 - On the Evolution of Human Speech, University of Nevada, Reno. April 1, 1982 - On the Evolution of Human Speech, Wellesley College, Wellesley, Mass. August 26, 1983 - "Recent studies on the evolution of language, International Congress Anthropological and Ethnological Sciences, Vancouver, BC, Canada. April 3, 1984 - On the Evolution of Human Language, University of British Columbia, Vancouver, BC. November 17, 1984 - The Biology and Evolution of Language, Brown Learning Community. May 22, 1985 - On the Evolution of Language, Aphasia Research Unit, Boston Veteran's Administration Hospital. June 25, 1985 - Seminar on the Acoustic Analysis of Speech. Summer Institute of the MacArthur Foundation Network on the Study of the Transition from Infancy into Childhood. Wintergreen, VA. August 11-17, 1985 - Discussant, Conference on universals of language, Max-Planck Institut für Psycholinguistik, Nijmegen, Holland. September 16, 1985 - The Biology and Evolution of Language, Neuropsychology Colloquium, Providence Veteran's Administration Hospital. October 28, 1985 - On the evolution of the neural substrate for syntax. Sloan Cognitive Science Colloquium, University of Pennsylvania. October 29, 1985 - On the Evolution of Human Language" Psychology Colloquium, University of Pennsylvania - "The Biology and Evolution of Language. November 13 & 14, 1985 - "The Biology and Evolution of Language" and "The Expression of Emotion". NIH Poolesville Laboratories. November 22, 1985 - Organizer and speaker - Symposium on the Evolution of Human Speech and Language. ASHLA convention, Washington, DC. November 24 - December 28, 1985 - Lecture and seminar series in Italy on "The Biology and Evolution of Language", organized by the Istituto di Anthropologia, University of Florence (in Florence, Pisa and Parma, Italy). February 2, 1986 - Developmental Physiology of Speech Production. Symposium on Developmental Biology, Meeting of the Association for Research on Otolaryngology. February 21, 1986 - On the evolution of human language. University of Connecticut. April, 1986 - The Biology and Evolution of Language; Harvard University Cognitive Science Society. April 17, 1986 - On the evolution of language. Graduate Center of the City University of New York. May 17, 1986 - Speech deficits in dyslexia - a case against a Chomsonian 'language organ'. Bell Lecture of the Massachusetts General Hospital. June 25, 1986 - Seminar on the acoustic measurement of task-induced stress in young children. Summer Institute of the MacArthur Foundation Network on the Study of the Transition from Infancy into Childhood, Chatham, Mass. October 16, 1986 - "Some biological constraints on universal grammar and learnability." Conference on the Teachability of Language, The University of Kansas, Lawrence, Kansas. October 24, 1986 - "On the evolution of intelligence and language." The University of Chicago - Chicago Linguistic Society. October 26, 1986 - "The discovery of matched neural mechanisms for speech perception." Plenary paper Conference on Computers and Language Teaching, University of Illinois at Urbana - Champaign. November 22, 1986 - "The vocal expression of affect" John and Caroline T. MacArthur Foundation Conference on the Development of Personality. March 26, 1987 - "The origins of some aspects of human language and cognition." Symposium on the Origins and Dispersals of Modern Humans: Behavioral and Biological Perspectives, Corpus Christi College, Cambridge, England. December 10 & 11, 1987. - On the evolution of language, thought and moral-sense. University of Delaware. November 18 - 22, 1987 - "Lectures on (1) the Evolution of Language, thought and

moral-sense, and (2) The expression of emotion. Universite de Geneve, Switzerland. February 27, 1988. - Thinking and Talking. Centennial Celebration of the University Museum, University of Pennsylvania. October 26, 1988. - On the evolutionary biology of speech and syntax. Department of Psychology, Harvard University. November 17, 1988. - How children do not acquire language. Department of Linguistics, University of Chicago. March 21, 1989. - The evolution of language. Plenary talk Eastern Anthropological Association, Montreal, Quebec. April 5, 1989 - On the evolution and biological bases of speech and syntax. University of Southern California, Los Angeles, CA. April 8, 1989 - The selective advantages of speech and syntax. Annual meeting of the American Association of Physical Anthropologists, San Diego, CA. April 22, 1989 - Mechanisms for speech and syntax, Neurology Rounds Rhode Island Hospital. August 23, 1989 - The Evolution of Human Language. Public Lecture - Santa Fe Institute, Santa Fe, NM. August 21-28, 1989. One of ten invited participants -- conference on the evolution of complex systems. Santa Fe Institute. November 9, 1989 - The Evolution of Speech and Syntax. Cognitive Science colloquium sponsored by Hampshire College and the University of Massachusetts, Amherst, MA. February, 28 1990 - The Neurophysiology of Talking and Thinking. Institute of Animal Behavior, Rutgers University. NJ. March 16-24, 1990 - Rule governed processes and relevant brain mechanisms -- speech and tool making. Wenner-Grenn Foundation for Anthropological Research Conference of "Tools, Language and Intelligence: Evolutionary Implications." Cascals, Portugal. November 29, 1990 - Brain Mechanisms for Speech and Syntax, Queens University, Kingston Ontario, November 29, 1990. December 10-14, 1990. - The Nijmegen Lectures, Max Planck Institut für Psycholinguistik, Nijmegen Holland: Lecture 1 - December 10: The evolution of speech, thought and selfless behavior. Lecture 2 - December 11: Darwinian evolutionary mechanisms and evolution of the modern human brain. Lecture 3 - December 12: A thoroughly modern human brain - speech and syntax. Seminar 1 - December 11: Speech and Syntax deficits of Parkinson's disease: The role of the basal ganglia in speech, syntax, and abstract thoughts. Seminar 2 - December 12: Brain circuits versus modular organs. Seminar 3 - December 13: The brain's dictionary. Seminar 4 - December 13: How children might acquire language. January 14-20, 1991 - Three public lectures on the evolution of modern humans and human language. -- "Distinguished Lectureship" talks, Academia Sinica, National Science Council, Taipei. March 11 1991 - The Evolution of Human Speech, Thought and Selfless Behavior. "Barbara Gordon Memorial Lecture," Florida International University March 25, 1991 - The origins and evolution of language. conference en Anthropologie, Universite de Montreal. Montreal, Quebec. April 12, 1991 - Uniquely human: The evolution of speech, thought and selfless behavior. Mary Washington College, Fredericksburg, VA. May 23, 1991. On the Evolution of Human Speech, Thought, and Selfless Behavior, International Conference on Genetics, Linguistics, and Archaeology, Centro Fiorentino di Storia E Filosofia della Scienza, Firenze, Italia. October 24, 1991 - Uniquely human: The evolution of speech, thought, and selfless behavior. Johnson Memorial Lecture, The Ohio State University. December 5, 1991 - Speech, symbolic activity, and the Neanderthal question. Symposium on evolution of symbolic activity. Annual Meeting of the American Anthropological Association, San Francisco, CA. January 20-23, 1992 - On the neural bases of human language. Conference on Biological and cultural aspects of language development. Universitat Bielefeld. Zentrum für interdisziplinäre Forschung. Bielefeld, Germany. February 13, 1992 - On the neurophysiology of speech and syntax. Grand Rounds Butler Hospital, Providence, RI. February 27, 1992 - The neurophysiology of speech, syntax and logic. Bloefield Memorial Lecture, University of Washington, Seattle,

Washington. March 1, 1992 - The neural bases of speech and syntax. Annual meeting of the American Association for Applied Linguistics, Seattle, WA. March 12, 1992 - "The brain bases of speech, syntax, and thinking: New data from the study of Parkinson's Disease." Department of Anthropology, Harvard University, Boston, MA. March, 17, 1992 - Speech production, syntax and thinking. 58th Stated Meeting of the Associates of the Neursciences Research Program. Rockefeller University, New York. (Invited Guest of the Institute for the meeting, March 15-18.) May 4-8, 1992 - Workshop on Cooperation and competition in evolutionary processes. Swedish Council for Planning and Coordination of Research (FRN) Abiska, Sweden. November 13, 1992 - "Speech production and the neural bases of human linguistic and cognitive ability with reference to moral sense." Annual meeting of Northeastern Political Science Association, Providence, RI. April 4, 1993 - "New Insights On Brain Organization." Academia Sinica, Taipei, Taiwan. February 17, 1994. On the evolution of intelligence and altruism. Brown Learning Community. March 20, 1994. Gallery talk. Museum of the Rhode Island School of Design. Providence. May 26, 1994, Brain mechanisms implicated in motor control and cognition. Academia Sinica, Taipei, Taiwan. December 30, 1994. What Mount Everest does to your brain: Anoxic deficits in speech and thinking. Appalachian Mountain Club, Pinkham Notch, New Hampshire. March, 1995, Neurological Grand Rounds, Rhode Island Hospital.

March, 1995, with Marcia R. Lieberman, "The Buddhist Wall-Paintings of Mustang." Tibet House, New York.

June, 1995. The Biological Bases of Human Language," IFOTT, University of Amsterdam, NL

November 1995, with Marcia R. Lieberman, "Bon and Sherpa Ritualism" Tibet House, New York.

December 1995, with Marcia R. Lieberman, "Tibet and Holy Mt. Kailash," Appalachian Mountain Club, Pinkham Notch, New Hampshire.

April 1997. Subcortical brain mechanisms implicated in language and cognition, Department of Brain and Cognitive Science, M I T --

October 1997, M I T - Experiments in nature revealing subcortical regulation of speech and syntax. Harvard Medical School program in Speech and Hearing Science.

April 1998, On the functional language system of the human brain. 2nd International Conference on the Evolution of Language. London, UK.

May 1998. Language Evolution and Innateness. The Mind, Brain and Language Conference. University of Illinois at Urbana-Champaign.

April 1999. Keynote address. Conference on the vocal expression of emotion. Emory University, Atlanta. GA.

May 1999. "Our reptilian brain on Everest". Museum of Science, Phoenix, Arizona

October 1999. "Human language and the reptilian brain: On the subcortical bases of speech, syntax, and thought". "Big Problems" Lecture Series of the Franke Institute for the Humanities of the University of Chicago, Chicago, Illinois

December 1999. Neanderthal speech. Department of Anthropology, University College, London, UK.

December 1999. "Human language and our reptilian brain: the subcortical bases of speech, syntax, and thought," opening lecture of the Conference on Evolution of the Berlin-Brandenburgische Akademie der Wissenschaften, Berlin, Germany

March 2000. "Neanderthal speech," LOH Symposium, University of California at San Diego and Salk Institute.

May 2000. "Semeiosis, speech and the evolution of the human brain." The Origins of Semeiosis, International Center for Semeiotic and Cognitive Studies, San Marino, May 19-21.

May, 2000. Evolution of speech -- radio talk solicited and broadcast in the United Kingdom by BBC Radio 4

March, 2000. with Marcia R. Lieberman. introductory lecture and slide presentation at Jane Dwyer Memorial Lecture of Geshe Ngawang Jangchup at the Haffenreffer Museum of Anthropology.

November 2, 2000. with Marcia R. Lieberman. "Tibetan Buddhist Paintings and People of the Indian Himalaya," The 101 Forum, Brown University

March 27, 2002. Motor control and the evolution of language, Fourth International Conference on the Evolution of Language, Harvard University.

October 8, 2003. On the neural bases of human language. Brown University Graduate Neuroscience Colloquium Series.

November 21, 2003. Basal ganglia and a "universal grammar" for action, language and cognition. MECA VI -Cognition and Action. Max Planck Institute for Psychological research, Munich, Germany

December 6, 2003. Motor control, memory and the evolution of human linguistic and cognitive ability. Symposium - Evolution of Language Reappraised. Primate Research Center (PRI) Kyoto University, Japan.

March 17, 2004. Subcortical neural circuits and human evolution. Symposium on new directions in Physical Anthropology, University of Massachusetts, Amherst. MA.

April 20, 2004. Motor control, the FOXP2 language gene and Mount Everest: Insights on the evolution of human linguistic and cognitive ability. Dept of Anthropology, University of Connecticut.

May 29, 2004. Chomsky's "Universal Grammar and the FOXP2 gene." Annual meeting of the Society for Behavior Analysis, Boston Mass.

August 20, 2004 - via telephone and Powerpoint - Voice Stress Analysis, NTSB and NASA.

January 10-11, 2005 Invited Speaker, Society of French Clinical Neurology, Paris, France

February 3, 2005 Filming by Canadian Broadcasting Company on NSBRI sponsored research (for broadcast in 2006)

February 17-19, 2005 Workshop on Evolution of Cognition, University of Delaware, Delaware

April 18-20, 2005 Invited speaker, Fundacion Ramon Areces, Integrative Symposium: Integrative Approaches to Human Evolution, Madrid, Spain Health and

June 13-15, 2005 Encoding/Decoding Workshop, Santa-Fee Institute, New Mexico

October 14-16, 2005 Invited Speaker, Alice V. and David H. Morris Symposium on the Evolution of Language, Stony Brook University, New York

November 21, 2005 Invited Speaker, Mary Washington University, Virginia

March 15, 2006...Invited Speaker. "Mount Everest – A Space Analog". Grand Rounds, Rhode Island Hospital, Providence, RI

March 17, 2006 Invited Speaker, "FOXP2 and the evolution of language". McGill University, Montreal, Canada.

July 18, 2006- Invited Speaker, "Hypoxic insult to the brain deriving from extreme altitude,". Defense Institute of Physiology and Allied Sciences, New Delhi, India.

October 7, 2006.-Invited Speaker, "Neanderthal speech and language,". Society for Understanding Humans. University of California, San Diego.

June 6, 2007, Invited speaker; "Voice monitoring cognitive deficits on a space-analog - Mount Everest." Eighth International Conference on Naturalistic Decision Making, Asilomar CA

February 2, 2008. Voice monitoring radiation induced cognitive deficits and performance decrements from cognitive load. NASA Human Research Program Investigators' Workshop, League City, Texas,

April 22, 2008. Therapsids and Us -- Inferences on the evolution of the neural bases of human language and cognition. George Washington University, Washington D.C.,.

October 24, 2008. With Marcia R. Lieberman: Southeast Asia- Beyond Touristland. Wheaton College, Norwood Massachusetts,.

H. NUMEROUS PAPERS READ OVER MANY YEARS.

I. SELECTED PHOTOGRAPHIC EXHIBITIONS AND PUBLICATIONS

SELECTED SOLO SHOWS:

- 1983 - Jan: Bertha Urdang Gallery, 23 East 74th St, New York
May: Providence Athenaeum, 251 Benefit St.
July-Aug: American Gallery, Bern, Switzerland
Sept: Gallery 401, 401 Elmgrove Ave., Providence
Dec : Bertha Urdang Gallery, 23 East 74th St, New York
- 1984 - June: Woods-Gerry Gallery of the Rhode Island School of Design
1986 - April: Silver-Bullet Gallery, Providence
June: Brouha Gallery, Providence
Nov: Bertha Urdang Gallery, 23 East 74th St, New York
- 1988 - Oct: Bannister Gallery, Rhode Island College, Providence
1989 - March: Bertha Urdang Gallery, 23 East 74th St, New York C
1991 - Dec: Bertha Urdang Gallery, 23 East 74th St, New York City
1992 - Nov: Gallery 401, 401 Elmgrove Ave., Providence
1994 - Feb: Providence Art Club.
1994 - Dec 31: "The Sherpa Festival of Dumji." Appalachian Mountain
Club, Pinkham Notch, New Hampshire.
- 1995 - March 29: (with lecture by M. R. Lieberman) Tibet House, New York. "The wall
paintings of Mustang, Nepal"
1995 - Dec 30, Dec 31: "Holy Mount Kailash" and "Swiss Berghotels", Appalachian
Mountain Club, Pinkham Notch, New Hampshire.
- 1996 - Feb. 25 to March 8. Dodge House Gallery of Providence Art Club. The
Tibetan Himalayan World.
1996 - June 15 to July 7: Galerie Op Steker, Amsterdam
- 1996 - November 17: (with lecture by M. R. Lieberman) Tibetan Art. Jacques Marchais
Museum of Tibetan Art, Staten Island, NY
1996 - Dec 31: The Chang-Tang Plateau of Tibet, Appalachian Mountain
Club, Pinkham Notch, New Hampshire.
1998 - Nov 15 to Dec 4. Dodge House Gallery of Providence Art Club.
From Tibet to Benefit Street: Recent Photographs

1999 - December. Visions and Voices of Tibet. Haffenreffer Museum of Anthropology, Brown University.

SELECTED GROUP SHOWS

Carl Siembab Gallery, Boston, Massachusetts
De Cordova Museum, Lincoln, Massachusetts

Invitational: a traveling show curated by Bertha Urdang: at London Regional Art Gallery, London, Ontario; Depree ArtCenter, Holland, Michigan; and other public galleries.

1986-1988 - International Traveling Invitational Show. "The Animal in Photography, 1843 - 1985." Assembled by the

Photographer's Gallery, London, U. K.

1994. "Contemporary Art in Rhode Island" Museum of the Rhode Island School of Design. One of 25 fine artists (one of five photographers) Three my five prints were selected for the Museum's permanent collection.

SELECTED PHOTOGRAPHIC PUBLICATIONS:

Walking Switzerland: The Swiss Way. Seattle: The Mountaineers (1987)

The United States of the Alps. New York: Alpine Tourist Commission (1991)

The Sherpas of Nepal (photographic essay), *Trilogy*.
January/February, 1992, pp. 24-29.

Carpet-children of Nepal, *The Rhode Islander*, May 15, 1994, 18-19
United Nations Development Commission Report, 1997 and 2000

The Alpine Parks of France and Northwestern Italy. (1994) Seattle: The Mountaineers

Walking Switzerland: The Swiss Way, 2nd edition, (1997) Seattle: The Mountaineers, text by Lieberman, M.

Swiss Mountain Inns (1998) Woodstock, Vt: Countryman Press (A division of W. W. Norton), text by Lieberman, M.

Where the earth meets the sky. In *The Oberoi Group Magazine* Summer 2001. pp. 1-11.

Himalayan portraits. In *The Oberoi Group Magazine* Summer 2006, pp. 50-57.

Photographs published in *The New York Times*

April 5, 1987 -- Emmental farm life

February 21, 1988 -- Khumbu and Solu Khumbu, Nepal.

July 3, 1988 -- Climb of the Breithorn, Switzerland.

August 14, 1988 -- Engadine villages, Switzerland.

June 11, 1989 -- Berghotels in Switzerland.

March 17, 1991 -- Suvarov's route through Switzerland.
July 28, 1991 -- Tumlingtar to Tengboche and Thame, Nepal.
March 1, 1992 -- Life and landforms in Zaskar and Ladakh, India
April 5, 1992 -- Bronze age art in Alpes-Maritimes, France.
April 25, 1993 -- Life and landforms in Dolpo, Nepal.
June 13, 1993 -- Valgrisenche, Italy.
April 24, 1994 -- Mustang, Nepal.
August 28, 1994 -- Queyras and Ubaye, France.
March 5, 1995 -- Hohturli, Switzerland.
April 19, 1995 -- Newari Art of Kathmandu.
November 12, 1995 -- Kathmandu.
September 1996 -- Holy Mt Kailash, Tibet
September 1997 -- The Appenzell
May 1, 1998 -- Inner Dolpo, Nepal
November 22, 1998, Kerala's Inland Waterways and Havelis of
Rajistan, India
June 6, 1999 -- Inland Rhode Island
June 20, 1999 -- Tour di Monte Rosa
February 11, 2001 -- Where the earth meets the sky.

Photographs published in The Boston Sunday Globe

February 4, 2001 -- A Zermatt High
June 17, 2001 -- The Surprise of Sicily
May 12, 2002 -- Ancient route through the Alps is rediscovered.

CD-ROM: with Marcia R. Lieberman and Lama Ngawang Jorden -- Photographic survey of the 15th Century Buddhist wall-paintings of the gombas (temples) of Mustang, Nepal Grant from the Getty Grant Foundation. The DVD is an archive containing 1,300 images (JPEG plus high resolution TIF files), a prayer chant and discussions of Tibetan art and culture. It is also on the Brown University website URL <http://dl.lib.brown.edu/BuddhistTempleArt>

650 Photographs in the permanent collections of The Brooklyn Museum, New York, The Museum of the Rhode Island School of Design, Providence, and The Haffenreffer Museum of Anthropology.

155 Photographs documenting life in the Himalaya in the Tibetan and Himalayan Digital Library (THDL) of the University of Virginia - The material on the CDROM of the 15th Century Buddhist wall paintings of Mustang is also being placed on this website in a form that can be accessed by scholars throughout the world. The Instructions for accessing this collection are as follows:

Listed in Who's Who in American Art

CULTURAL DOCUMENTATION FOR HAFFENREFFER MUSEUM

147 archival prints of my photographs documenting Buddhist culture and life in Ladakh India and Laos were placed in the permanent collection of the Haffenreffer Museum of Anthropology.

These photographs record the ongoing cultural transition occurring as traditional Buddhist agrarian and nomadic cultures encounter outside “modern” influences.

6. RESEARCH

The goal of my research over more than three decades has been to understand both the nature and the evolution biological bases of the some of the attributes that make us human. A full understanding of any aspect of biology must take into account its evolution. As Dobzhansky noted, “Nothing in biology makes sense except in the light of evolution.” That understanding, unfortunately, usually does not characterize research in Cognitive Science, Neuroscience, or Linguistics.

Although linguists have focused on syntax being the key to human language, evolutionary principles point to talking being a critical element - animals can't talk. I initially focused on the evolution of the human, species-specific, vocal tract. The anatomy of the skull base, mouth, pharynx and throat evolved in part to facilitate speech production. But it is apparent that other species, even closely related primates, also lack the neural substrate that allows humans to flexibly reprogram motor gestures to produce voluntary speech. The papers that my colleagues and I published between 1968 and 1972) showed that this is the case. Therefore, the species-specific human vocal tract which increases the risk of choking would have been worse than useless without the presence of this neural substrate. This synergy between the evolution of anatomy and brains has allowed us to make reasonable inferences about the time-depth of fully human speech. If a fossil hominin had a modern vocal tract, s/he most like had a brain that could have produced voluntary speech.

Moreover, we can make the reasonable inference that s/he also would have possessed modern cognitive capabilities. Lieberman and McCarthy (2007) proposed that modern speech and cognitive capabilities are first apparent in the Upper Paleolithic, some 50,000 years ago when the archaeological record suggests that a “cultural revolution” took place. This inference is reasonable because speech production is regulated by cortical-striatal-cortical circuits, whose subcortical striatal elements also support neural circuits that confer the range of cognitive capabilities grouped under the rubric of “executive control.” These capabilities include cognitive flexibility – which I see as the key to creativity, working memory, comprehending syntax, accessing words from the brain’s “dictionary” (temporal regions of the brain), and solving mathematical problems.

I have proposed that the neural circuits that confer human cognitive ability evolved from ones initially adapted for motor control. The mark of this evolutionary process appears to be evident in the fact that deficits in speech motor capabilities co-occur with a group of cognitive deficits that experimental findings show involve damage to the striatal basal ganglia in these neural circuits. Independent fMRI data from both neurologically intact and compromised subjects support this conjecture.

The practical fruits of this enterprise are techniques that make use of the fact that the basal ganglia support neural circuits implicated in cognition as well as motor control. We have used speech measures to monitor cognitive deficits arising from Parkinson’s disease, Developmental Verbal Apraxia and hypoxia. Working with Dr. David Mandelbaum and his colleagues at R I

Hospital, we propose to develop and validate a rapid, low-cost procedure for monitoring cognitive deficits resulting from concussion, using speech and error-rate measurements from 4-minute long repeatable tasks. My previous research shows that these procedures can detect cognitive deficits.

Specific Research Projects

June 2000- October 30, 2008). "Speech monitoring of stress and cognitive deficits." National Space Biomedical Research Institute (NSBRI) – we demonstrated that we could monitor cognitive deficits arising from exposure to radiation or hypoxia through speech analysis.

Ongoing collaboration with Dr. Mandelbaum, Hasbro Children's Hospital on Developmental Verbal Apraxia

Ongoing collaboration with Dr. Joseph Friedman, Neurohealth, on Parkinson's Disease

Ongoing collaboration with Dr. Deb Pal, Mailman School of Public Health of Columbia University. on Rolandic epilepsy. We show a syndrome that appears to result from dysfunctional basal ganglia - speech motor control and cognitive flexibility are compromised. The gene implicated in this condition has been isolated.

Book Project

In line with my overriding interest concerning human nature and human evolution, I am working on a book aimed at a general audience on the neural bases of free will and their evolution

I define free will as the ability to choose among alternatives. My basic premise is that this capacity derives from neural circuits that initially were adapted for motor control. . The book also will discuss the biological bases of morality because morality and free-will are often tied together. My claim is that morality does not have a discrete genetic basis. Contrary to the claims of Evolutionary Psychology, there is no "moral gene."

The evidence that I will discuss includes the findings of current neuroimaging studies, neurophysiologic studies of other species and humans that reveal circuits, behavioral studies of the consequences of insult to the brain, and the historical record.

7. SERVICE:Brown University:

Chairman, Department of Linguistics, 1975-1977. 1981-86. Chairman, Department Cognitive and Linguistic Sciences, 1988 - 1991 Modern Language Board and Council for Languages and Literature, Brown University, 1975-1976. Committee on Honorary Degrees, 1984-1986. Chairmen's Meeting Agenda Committee, 1983-1984. Freshman advising, 1976 - 2003

Professional:

Program Committee of the Linguistic Society of America, 1974-1976.

Technical Committee on Speech Communication, Acoustical Society of America, 1965-1972.

Language editorial review committee, Linguistic Society of America, 1978-1981.

Consultant and site visitor for NSF, NIH and New Zealand Research Council. Dutch NSF equivalent, Canada Council, National Transportation Safety Board, New Zealand NSF, Netherlands Science Foundation, Belgium, UK, Israel Science Foundation and others
American Psychological Association Planning Committee for cognitive psychology. 1986.

Study group for mission of the NIH Institute on Deafness and other Communication Disorders, January 1989.

Editorial Boards: *Human Evolution, Linguistic Research, Mother Tongue. MOCA (Society for understanding human evolution)*

REFEREE OF SUBMITTED PAPERS, GRANT PROPOSALS, AND BOOKS

Cortex, Cell, Brain and Language, American Journal of Primatology, Journal of Applied Physiology, Brain and Behavioral Sciences, Trends in Cognitive Science, NSF, NIH, Chinese Academy of Sciences, Springer Verlag, Cambridge University Press

1995 to present - Board of Directors, Association for the Study of Language in Prehistory.

1997- to present - La Jolla Group for explaining the origin of humans (LOH)

Reviewer: *Science, The Journal of the Acoustical Society of America, American Journal of Physical Anthropology, General Psychology Review J. Nervous Mental Disease, Brain and Language., Neuropsychologia, Cell, American Journal of Primatology, Journal of Applied Physiology, Cortex, MIT Press, Springer, Cambridge University Press, Oxford University Press, Harvard University Press, LEA, and other publishers and journals.*

Community:

Consultant on voice analysis and voice analyses for various law enforcement agencies, defendants in criminal trials, National Transportation Safety Board, Federal Bureau of Investigation, the US Army and other Federal entities.

Lectures to civic groups on the evolution of language. Slide shows on Buddhist Art with M. Lieberman.

Contributions of photographs for auctions benefiting WSBE, First Unitarian Church, Museum of the Rhode Island School of Design, Hands in Outreach, Community Volunteers, PBS and other charitable organizations,

8. Honors

Fellow: American Association for Advancement of Science

Fellow: American Psychological Society

Fellow: American Anthropological Association.

Associate: Current Anthropology,

Associate: Brain and Behavioral Science

1974: Research Award of the American Speech and Hearing Association.

1984. Guggenheim Fellow

1985: NATO Visiting Professor, Istituto di Anthropologia, Florence, Italy.

1986: Guest Editor, of *Human Evolution*.

1990: Nijmegen Lecturer, Max Planck Institut fur Psycholinguistik, Nijmegen Holland, (aweeklong series of lectures) December 10-14, 1990

1991: Distinguished Lecturer, Institute of Philology of the Academia Sinica, Taipei, Taiwan, Republic of China.

1992: - Leading Edge Speaker, Evergreen College, Evergreen, Washington

2005: Concluding Invited Speaker, Alice V. and David H. Morris International Symposium on the Evolution of Language, Stony Brook University, New York

9. Sponsored Research:

N.I.H. research study, Development of Speech in Infants, Grant #5R01HD09197, 1975-1981; N.I.H. Grant "Developmental Studies of Speech.

Grants for study of development of speech perception in infants from John and Caroline Macarthur Foundation 1984-1986

Research contract on forensic voice analysis - U. S. Department of Justice, Federal Bureau of Investigation, Forensic Sciences, Order # A107193, 1991-1993.

Grants NASA (1992-95) for extreme-altitude Research.

Grant FAA (1995-1996) voice analysis of Air Traffic Controllers.

Grant FAA (1996-1997) Acoustic measures of hypoxia in pilots

with Marcia R. Lieberman, "CD-ROM of a photographic survey of Buddhist wall paintings in Mustang, Nepal" funded by Getty Grant Program, Los Angeles, CA., Reference Works Category, 2000-2004

Joint Research Project on Voice Analysis for Hypoxic Cognitive Dysfunction -- U. S. Army, AIREM, Natick Massachusetts 1997 --

Grant National Space Biomedical Research Institute. Speech-based monitoring of cognitive and linguistic ability, and personality alterations. 2001-2004,

Current Sponsored Research:

National Space Biomedical Research Institute: Voice measures of cognition and stress. July 2004-June 2007.

SELECTED TV, RADIO, AND PRINT INTERVIEWS:

Subject of Educational Television Documentaries on the Evolution of Language, filmed at Brown University by: TF-1, French National Television, 1981; Mann-Union TV, Japanese Television, 1984; RAI, Italian National Television, 1984; Canadian Broadcasting System, 1986; 2002, PBS, WNET/Thirteen "The Mind" 1987, BBC Science Programme 1987, 1999, 2001; Granada TV (England) -- "Dead Men Talk' (The evolution of modern human beings) 1991. Radio interview: March 1993, Canadian Broadcasting System Filming. 1988. Featured in Special Section on "Archaeology: Transitions in Prehistory" *Science* 282:1455-1457. Discovery Channel, Everest Research 1995, 2003, 2005; Swedish television, Evolution of language 2007

September 1993 -- Granada TV documentary, "The Origins of Man." 1995 "Language' - PBS (series produced by G. Searchinger), 1997 Discovery Magazine "Hypoxia on Mount Everest." 1997 Discovery Magazine "Voice analysis in Parkinson's Disease." 1999 Deutsche Welt 2000 BBC 2003- *The Lancet-Neurology*, Newsdesk Editorial, "Detection of cognitive impairment: the final frontier. 2:590-591. 2004: Featured in Special Section on the Evolution of Language, *Science* 303:1316-1317. 2004 BBC 2004 - A Laboratory known as Everest, article on NSBRI Everest study in *The Nation* (Nepal) May 2, pp. 24-25. 2004- Documentary on Everest research, Discovery Channel - Canada 2005 - January 3 Interview on speech perception, Science Magazine 2006 – Interviews *New York Times*, *Science*, various PBS and CBC stations. 2007. Interviews with *Science*, Brazil feature article- *Veja Magazine* (Brazil), Filming by Swedish TV on evolution of human language.

Photography:

1994 -- "Contemporary Art in Rhode Island," juried exhibition of Museum of Rhode Island School of Design (one of 25 artists selected in the Fine Arts Category) 1999 -- "The Tibetan World: Visions and Voices". Exhibit at the Haffenreffer Museum of Anthropology, Brown University.

2002-2003 - 230 prints documenting life in Tibetan Himalayan regions and in Southeast Asia selected for archives of the Haffenreffer Museum of Anthropology.

2004- 350 photographs taken over the past twenty years documenting traditional Tibetan life in the Himalaya placed in the archives of the Tibetan and Himalayan Digital Library (THDL) of the University of Virginia.

<http://THDL.org> (path: Collections - Special Collections) They are available in high-resolution TIF files to scholars throughout the world. The material on the CDROM of the 15th Century Buddhist wall paintings of Mustang is also on this website.

Listed in *Who's Who in America* and/or *Who in American Science and Technology* .and *Who's Who in the World*, at various times 1999.

Listed in *Who's who in American Art* since 1987.

9. TEACHING LAST THREE YEARS:

Semester 1: CGL 032. The Biology and Evolution of Language
CGL 124. Laboratory course on Speech Physiology,
Perception and Acoustics

Semester 2: CGL 150. Subcortical brain bases of language and
thought

2005-2006

Semester 1: CGL 032. The Biology and Evolution of Language
CGL 124. Speech Physiology, Perception and Acoustics

Semester 2: CGL 150. Subcortical brain bases of language and
thought

2006-2007.

Semester 1:

CGL 124. Laboratory course on Speech Physiology, Perception and
Acoustics

CGL 198: Seminar with M Tarr on the Evolution of Perception and Language.

Semester 2: CGL 150. Subcortical brain bases of language and
thought

2007-2008

Semester 1: CGL 032. The Biology and Evolution of Language

2008-2009

Spring:

CGL 124. Laboratory course on Speech Physiology, Perception and
Acoustics

CGL 150. Subcortical brain bases of language and thought.

Fall: CGL 150. Subcortical brain bases of language and
thought

Independent studies: CG 198 and CG 201 2-4 students per semester,

Honors projects:

Beverly R. Young

Sandra Mather – 2006

Maya Barsky – in progress

Recent Graduate Theses Supervised

Ph.D. Theses underway: Sandra Mather

Ph.D Thesis directed: W. T. Fitch, completed 1994

Ph.D Thesis directed: E. R. Pickett, completed 1998

Ph.D Thesis advisor (with Prof J Vaissiere, Universite de la Sorbonne Nouvelle (Paris III): Soo-Jin Chung, completed 2000

Ph.D Thesis directed: J. Hochstadt, completed 2004

Supervised research of Morana Alec - graduate exchange student from Bologna-Brown program. 1998-2000

10. Prepared December, 2008