

*The 14th Annual*  
Boston University

Conference on  
Language  
Development



October 13th, 14th, 15th, 1989





Boston University

The Fourteenth Annual  
Boston University

# Conference on Language Development

October 13, 14, and 15, 1989

Organized by  
Graduate Students in  
The Program in Applied Linguistics



# SPEAKING YOUR LANGUAGE

**NEW**

## **PHONOLOGY A COGNITIVE VIEW** **Jonathan Kaye**

*A Volume in the Tutorials in Cognitive Science Series*

*Phonology* introduces readers to the field as well as to the basic problems and objectives of phonology while it addresses the nature of phonological units, presents various phenomena, and discusses the evolution of phonological theories.

0-89859-858-3 (cloth) / 1989 / approx. 208pp. / \$39.95

0-8058-0466-8 (paper) / \$17.50

## **FORTHCOMING TITLES**

### **NARRATIVE THOUGHT AND NARRATIVE LANGUAGE**

edited by **Bruce K. Britton, A.D. Pellegrini**

Contributors: C.F. Feldman, J. Bruner, B. Renderer, S. Spitzer, W. Chafe, D.R. Olson, A.D. Pellegrini, L. Galda, J. Lucariello, J.W. Astington, C.J. Swearingen, M. McGuire, J. Walkup.

0-8058-0099-9 / 1989 / In Press

### **PSYCHOLOGY OF LANGUAGE**

**AN INTRODUCTION TO SENTENCE AND DISCOURSE PROCESSES**

**Murray Singer**

Contents: Introduction. Language and Meaning: Representing and Remembering Discourse. Syntax and Parsing Processes. The Role of Knowledge in Language Comprehension. Understanding Coherent Discourse. Theme. Inference Processes. Understanding Stories. Question Answering and Sentence Verification. Natural Language Understanding by Computers -- and People.

0-8058-0005-0 / 1990 / In Press

### **CHILDREN'S LANGUAGE**

**VOLUME 7**

edited by **Catherine Snow, Gina Conti-Ramsden**

"the **Children's Language Series** improves with each volume ... [it] continues to provide a valuable outlet for new theory and data from proven researchers in the field."

-- *Contemporary Psychology* (Review for Previous Edition)

Continuing in the tradition of the past volumes, Volume 7 presents international contributions on the study of child language acquisition.

0-8058-0523-0 / 1990 / In Press

## **VISIT OUR DISPLAY**



**Lawrence Erlbaum Associates, Inc.**

365 Broadway, Hillsdale, NJ 07642

(201) 666-4110 FAX (201) 666-2394

# LINGUISTICS FROM HBJ

*New for 1990*

## LANGUAGE IN THOUGHT AND ACTION

*Fifth Edition*

S.I. HAYAKAWA  
with ALAN R. HAYAKAWA

The fiftieth anniversary edition of a classic best-seller; fresh, current, and thoroughly up-to-date.

*Just Published*

## LANGUAGE Its Structure and Use

EDWARD FINEGAN  
NIKO BESNIER

Emphasizes language structure *and* use, with the most recent developments in sociolinguistic issues and language research and samples from a great variety of languages.

HBJ

HARCOURT BRACE JOVANOVIĆ, Inc.  
College Sales Office  
7555 Caldwell Avenue, Chicago, IL 60648  
(312) 647-8822

## WELCOME

Welcome to the Fourteenth Annual Boston University Conference on Language Development. This year the conference is made up of three main thematic tracks (Literacy, L1 Acquisition and L2 Acquisition) and two half-day special interest tracks (American Sign Language and Neurolinguistics). Recognizing that L1 and L2 researchers share common theoretical questions, we also offer participants the opportunity (particularly on Friday) to explore together such topics as the Acquisition of Phonology and Theories of Evidence.

Regulars to the conference will notice some changes. This year we will be holding sessions in a few different locations on Friday and in a new location on the weekend, so we ask that you pay close attention to session locations in your handbook.

The BU Conference on Language Development is run entirely by graduate students. We would like especially to thank Carol Neidle, the program chair in Applied Linguistics at the Graduate School and our acting conference advisor, for her unwavering support and meticulous attention to the needs of the conference and of the students this past year.

We would also like to thank the Applied Linguistics faculty for their encouragement and assistance. In addition we extend our sincere appreciation to the School of Education for their continued support.

Finally we would like to welcome Bonnie Schwartz, of the Program in Applied Linguistics and our new conference advisor, to Boston University. We are truly grateful for her help over the last few months, and we look forward to planning next year's conference with her.

Please notice the evaluation form in the conference packet. We would be grateful if you would fill it out and leave it at the Registration Desk to help us in next year's planning.

We have enjoyed the year of planning that has gone into making this Conference. It has been a special opportunity to meet and talk with many of you during the year and during these three days. We do hope you enjoy the conference and your time with us at BU!

The 1989 Conference Committee

Lorrie Verplaetse, Co-chair, Programming

Julie Ann Rodi, Co-chair, Facilities

Debra Aarons  
Ben Bahan  
Hsiao-chih Chang  
Elaine Crowder  
Qian Hu  
Sam-po Law

Yunhee Lee  
Laraine Prasinis Lippincott  
Gregg Singer  
Jose Soares  
Min Zhang  
Janette Zupnik

## Hogrefe & Huber Publishers

P.O. Box 51, Lewiston, NY 14092; To Order: (800) 228-3749

Riley, L. R.

ISBN 0-88937-017-6  
US \$28.00 / CAN \$35.00

### The Psychology of Language Development: A Primer

"This is an important recent book on the topic, which offers a broad discussion of the theories of such scholars as Piaget, Vygotsky, and Wundt, and which examines the scientific and philosophical roots of language and language development."

Reviewed by K. Gurpakask, Editor-in-Chief  
*Educational Book Review*, August 1988

Samuda, R. J.; Kong, S. L.; Cummins, J.;  
Pascual-Leone, J.; Lewis, J.;  
(Editors)

1989, 200 pp., hardcover  
ISBN 0-88937-024-9  
US \$38.00 / CAN \$49.00

### Assessment and Placement of Minority Students

Standard procedures for student assessment and placement in modern schools can create situations whereby minority students may not be dealt with fairly. It is therefore important that educators, administrators and counselors examine possible sources of bias, avoid the misleading use of tests and placement procedures, and explore methods better designed for the special needs of individuals. This book focuses on contemporary issues and concepts related to assessment and placement procedures, not only critiquing current processes, but also offering a wide range of alternatives. The authors have many years of experience in dealing with these problems throughout the world.

# Learning the Language

For examination copies,  
write Mary Pat Sitlington,  
Humanities Marketing  
Manager.

### An Introduction to Language, 4/e

Victoria A. Fromkin/ Robert Rodman  
The best-selling comprehensive  
introductory text for language and  
linguistics. Full presentation of the  
three main components of language:  
phonetics and phonology, semantics,  
and syntax. ISBN 0-03-006532-1

### A Biography of the English Language

C.M. Millward  
This compact history of the English  
language includes both cultural and  
semantic history. Workbook also  
available. ISBN 0-03-059431-6



**Holt, Rinehart & Winston, Inc.**

301 Commerce Street, Suite 3700  
Fort Worth, Texas 76102  
(817) 334-7500

H53-9CLD-10

## Acknowledgements

The Boston University Conference on Language Development is an entirely student-run conference. We owe a great deal of thanks for the many forms of assistance we have received.

We would like to thank all the faculty members participating in the Boston University Graduate School of Arts and Sciences' interdisciplinary program in Applied Linguistics (representing The Graduate School, Sargent College, The School of Education and The School of Medicine) for all their support and sound advice.

The Conference Committee is extremely grateful to the School of Education at Boston University, which has generously made available support for the conference. The provision of office space, telephone access, xerox facilities and help with our accounting is greatly appreciated.

Our thanks are due, as well, to the members of the Review Committee for their help in selecting this year's papers.

### Review Committee

James Paul Gee, University of Southern California  
Jane Grimshaw, Brandeis University  
Sarah Michaels, Education Development Center  
Mary Catherine O'Connor, Boston University  
Thomas Roeper, University of Massachusetts, Amherst  
Bonnie D. Schwartz, Boston University  
Catherine Snow, Harvard University  
Karin Stromswold, MIT  
Lauren Trigo, Boston University  
Lydia White, McGill University  
Moira Yip, Brandeis University

*The Latest in Learning, Development  
and Conceptual Change*  
New from Bradford Books

**Mind Bugs** —————

**The Origins of Procedural Misconception**

*Kurt VanLehn*

VanLehn develops a theory of learning that explains how students develop procedural misconceptions that cause systematic errors.

\$22.50 (February)

**Categorization and Naming in Children** —————

**Problems of Induction**

*Ellen Markman*

"This book will surely become *the* standard reference work on early conceptual and lexical development." — Susan Carey, MIT \$25.00

**Speaking** —————

**From Intention to Articulation**

*Willem J. M. Levelt*

"A superb book, extremely readable, insightful. . . ." — Ursula Bellugi, The Salk Institute \$39.95

**Concepts, Kinds, and Cognitive Development** —————

*Frank C. Keil*

A coherent account of how concepts and word meanings develop in children. \$29.95

**Learnability and Cognition** —————

**The Acquisition of Argument Structure**

*Steven Pinker*

Pinker synthesizes a vast literature in linguistics and psycholinguistics and outlines explicit theories of the mental representation, learning, and development of verb meaning and syntax. \$29.95 (November)

**The Organization of Learning** —————

*Charles R. Gallistel*

Gallistel proposes a new and imaginative hypotheses about brain and mental processes using a computational-representational framework.

\$45.00 (December)

**The MIT Press** 55 Hayward Street Cambridge, MA 02142  
Visit our bookstore at 292 Main St., Kendall Square, Cambridge

## Table of Contents

	Page
Welcome .....	i
Acknowledgements .....	ii
General Information .....	iv
Conference Schedule .....	vi
Abstracts .....	1
Literacy in the Humanities .....	1
Acquisition of Phonology .....	3
Linguistic Awareness of the Child .....	6
The Discourse of Mathematics .....	9
Theories of Evidence .....	11
American Sign Language .....	14
Literacy in the Workplace .....	16
Bound Variables .....	19
Neurolinguistics .....	21
Literacy and Ideology .....	23
pro and Pronouns .....	25
Sociocultural Approaches to L2 Acquisition .....	27
Interpretations of Literacy Events .....	30
Syntax and The Lexicon (Part I) .....	32
Age Effects and The Role of UG in L2 Acquisition (Part I) .....	35
Sociocultural Perspectives on Literacy .....	38
Syntax and The Lexicon (Part II) .....	40
Age Effects and The Role of UG in L2 Acquisition (Part II) .....	43
Index of Conference Speakers .....	46
Speakers' Names & Addresses .....	51
Index of Exhibitors .....	57

# **ABLEX PUBLISHING CORPORATION**

New titles on display at the BU Conference  
on Language Development include:

Bloome (ed.):

**CLASSROOMS AND LITERACY**

Blum-Kulka et al (eds.):

**CROSS CULTURAL PRAGMATICS**

Cameron (ed.):

**COMPUTER ASSISTED LANGUAGE LEARNING**

Dechert/Raupach (eds.):

**TRANSFER IN LANGUAGE PRODUCTION**

Emihovich (ed.):

**LOCATING LEARNING**

Grimshaw:

**COLLEGIAL DISCOURSE**

Hasan/Martin (eds.):

**LANGUAGE DEVELOPMENT**

Labarca/Bailey (eds.):

**ISSUES IN L2**

Rafoth/Rubin:

**SOCIAL CONSTRUCTION OF WRITTEN  
COMMUNICATION**

Steiner (ed.):

**PRAGMATICS, DISCOURSE AND TEXT**

Sternglass:

**PRESENCE OF THOUGHT**

A full range of backlist titles will also be on display.  
A 15% convention discount will be given on all orders.



**Ablex Publishing Corporation**  
**355 Chestnut St.**  
**Norwood, NJ 07648**  
**(201) 767-8450**

## GENERAL INFORMATION

### REGISTRATION:

On Friday, October 13, registration for all sessions will be held from 8:30 am to 5:00 pm in the first floor lobby of the George Sherman Union, 775 Commonwealth Avenue. All conference attendees need to register there BEFORE proceeding to the various sessions.

Registration for the **keynote address** (for those who have not already registered) will be on Friday, October 13, from 6:00 pm to 8:00 pm in the lobby of the Metcalf Science Center, 590 Commonwealth Avenue.

On Saturday, October 14 and Sunday, October 15, registration for all sessions will be held from 8:00 am to 5:00 pm in the lobby of the College of Basic Studies, 871 Commonwealth Avenue.

### LOCATION OF SESSIONS:

#### FRIDAY, OCTOBER 13:

Literacy in the Humanities -- Morse Auditorium, 602 Commonwealth Avenue.

Acquisition of Phonology -- George Sherman Union, Terrace Lounge,  
775 Commonwealth Avenue.

Linguistic Awareness of the Child -- George Sherman Union Auditorium,  
775 Commonwealth Avenue.

The Discourse of Mathematics -- Morse Auditorium, 602 Commonwealth Avenue.

Theories of Evidence -- George Sherman Union Auditorium,  
775 Commonwealth Avenue.

American Sign Language -- George Sherman Union, Terrace Lounge,  
775 Commonwealth Avenue.

#### SATURDAY, OCTOBER 14 & SUNDAY, OCTOBER 15:

All sessions -- College of Basic Studies, 871 Commonwealth Avenue.

### KEYNOTE ADDRESS:

**William Labov**, University of Pennsylvania, will deliver the keynote address at 8:00 pm on Friday, October 13, in the Metcalf Science Center Auditorium, 590 Commonwealth Avenue.

Reception -- You are cordially invited for wine and hors d'oeuvres in the adjacent lounge immediately following the keynote address.

## SUNDAY PLENARY LUNCHEON:

James Paul Gee, University of Southern California, will host a plenary talk and discussion in the Top of the Charles Lounge, 5th floor of the George Sherman Union, 775 Commonwealth Avenue, from 12:00 pm to 1:30 pm. A sit-down luncheon will be served. Tickets must be purchased in advance.

## CONFERENCE AMENITIES:

Publishers' exhibits -- Exhibits will be located in the lobby of the College of Basic Studies all day Saturday, October 14 and Sunday, October 15. A list of exhibitors may be found at the back of this handbook.

Coffee -- Coffee, decaf, and tea will be served for most of Saturday and Sunday in the lobby of the College of Basic Studies. Also, complimentary bagels and cream cheese will be available at 8:30 am on Sunday.

Saturday night dinner -- A semi-formal dinner, cash bar, and live entertainment will take place at the Top of the Charles lounge, 5th floor of the George Sherman Union, from 7:00 pm until midnight. The cash bar will open at 7:00 pm, and dinner will be served at 8:00 pm. For those eating dinner elsewhere, please stop by for drinks, music, and socializing after 9:00 pm. Tickets for the dinner must be reserved in advance.

Sign language interpreters -- Interpreters will be available for all sessions. Please inquire at the registration desk when you arrive.

Message board -- You may leave messages on the board located near the registration desk in the George Sherman Union on Friday and in the College of Basic Studies on Saturday and Sunday.

Lost and found -- Any personal articles lost or found should be reported at the registration desk.

Parking -- Parking spaces are available in Boston University lots for a reduced price of \$ 6. Be sure to mention that you are attending the Language Conference.

Badges -- Please be sure to wear your badge at all times so that you may be readily identified as a Conference participant.

Information -- Campus maps and a list of nearby restaurants may be obtained at the registration desk.

## Conference Schedule

MORNING

Friday, October 13

Literacy

First & Second Language Acquisition

Literacy in the Humanities	Acquisition of Phonology	Linguistic Awareness of the Child
9:00 Dennie Palmer Wolfe, Speaking in Tongues: Learning the Discourse of Literature	9:00 B. Elan Dresher, A Parameter-Based Learning Model for Metrical Phonology	9:00 Ioanna Berthoud-Papandropoulou, How Does Translation Work? Devel- opment of a Metalinguistic Concept
9:45 Nina Mikkelsen, Story Making and Non-Mainstream Children	9:45 John Archibald, Metrical Parameters - A Neglected Area of Research	9:45 Ruth A. Berman, Children's Knowledge of Verb Structure: Data from Hebrew
10:30 Francis J. Sullivan, The Social Construction of Academic Literacy	10:30 Katherine Demuth, Theoretical Problems in the Acquisition of Prosody	10:30 Trisha Svaib and Susan Gelman, Children's Strategies for Acquiring Novel Lexical Hierarchies
11:15	11:15 Ann Peters, From Schwa to Grammar: the Emergence of Grammatical Morphemes	11:15 William Merriman & Joneen Schuster, Curbing Pre-schoolers' Mutual Exclusivity Bias
12:00	12:00 Paula Marentette & Laura Pettito, Babbling in Sign Language: Implications for the Ontogeny of Language in the Developing Brain	12:00 Ray Dougherty & Erin Tinker, Learnability and Language Variation

\*Literacy in the Humanities : Morse Auditorium, 602 Commonwealth Avenue.

\*Acquisition of Phonology : George Sherman Union Terrace Lounge, 775 Commonwealth Avenue.

\*Linguistic Awareness of the Child : George Sherman Union Auditorium, 775 Commonwealth Avenue.

AFTERNOON

The Discourse of Mathematics	Theories of Evidence	American Sign Language
<p>1:45 Glenn Kleiman &amp; Marlene Kliman, Discourse and Collaboration in a New Elementary Math Curriculum</p> <p>2:30 Judah L. Schwartz, Semantic Aspects of Quantity</p> <p>3:15 Mary Catherine O'Connor, Building Understandings and the Language of Word Problems</p> <p>4:00 Sarah Michaels, "Beam me up math mode, Scottie": A Preliminary Look at Different Ways of Reading Math Problems</p>	<p>1:45 Stephen Crain, Why Production Precedes Comprehension</p> <p>2:30 Jane Grimshaw, Linguistic Experimentation</p> <p>3:15 David Birdsong, Lux et verisimilitudo: Judgment Data in Second Language Acquisition Theory</p> <p>4:00 Karin Stromswold, Using Naturalistic Data: Theoretical and Methodological Issues</p>	<p>1:45 Ted Supalla, American Sign Language Test Batteries</p> <p>2:30 Sam Supalla, Segmentation of Manually Coded English</p> <p>3:15 Jenny Singleton &amp; Elissa Newport, Restructuring of Language from Impoverished Input: Linguistic Compensation</p>

keynote address  
Friday evening at 8

**WILLIAM LABOV, The Child as Linguistic Historian**

- \*The Discourse of Mathematics : Morse Auditorium, 602 Commonwealth Avenue.
- \*Theories of Evidence : George Sherman Union Auditorium, 775 Commonwealth Avenue.
- \*American Sign Language : George Sherman Union Terrace Lounge, 775 Commonwealth Avenue.

# Saturday, October 14

MORNING

Literacy

First Language Acquisition

Neurolinguistics

Literacy in the Workplace	
9:00	Sylvia Scribner, Talking and Working
9:30	Bruce Dorval, Speech-Event Analysis of Work-Training Talk
10:00	John Dore, The Social Semiotics of Training Talk
10:30	Chantale Héту, Work Communications in the Semiconductor Industry
11:00	Stephen Reder, The Impact of Technology on Workplace Communication
11:30	Rosalie Schwartz, Gender Discrimination in the Workplace

Acquisition of Syntax: Bound Variables	
9:00	Jill deVilliers & Thomas Roeper Learning Bound Variables
9:45	Helen Goodluck, The Development of Operator Movement
10:30	Marie LaBelle, Licensing of Empty Categories in Child Language
11:15	Dany Adone & Maaiké Verrips, Acquisition of Empty Categories in Mauritian Creole

Tutorial Session	
9:00	Michael Matthews, Neuroanatomy of Language Function
9:45	Marcel Kinsbourne, Plasticity in the Brain Basis of Language Development
10:30	Jyotsna Vaid, Repercussions of Brain Maturation on Second Language Functioning
11:15	Susan Curtiss, The Effects of Age on First Language Acquisition

\*All sessions : College of Basic Studies, 871 Commonwealth Avenue.

## AFTERNOON

### Second Language Acquisition

Literacy and Ideology		Acquisition of Syntax: pro & pronouns		Sociocultural Approaches	
1:45	James Paul Gee, Literacy, Linguistics, Ideology and "Mushfake"	1:45	Kenneth Wexler & Nina Hyams, Subjectless Sentences: Some Alternative Accounts	1:45	Pica, Lewis, Holliday, Newman, & Berducci, Language Learning through Interaction: the Role of Gender
2:30	Hilary Janks, Critical Linguistics: A Starting Point for Oppositional Reading	2:30	Ana Teresa Fiallo & Sabrina Aurilio, Is It Snowing? : Children's Early Interpretations of Expletive Pronouns	2:30	Martha B. Crago, Teaching Silent Children to Talk a Second Language
3:15	Michael Silverstein, The Trap of the Trope of Literacy	3:15	Cecile McKee, Another Chapter in the Continuing Mystery of Condition B	3:15	Cecil Lucas & Clayton Valli, Language Contact in the Deaf Community: Implications for L2A
4:00	James Collins, The Troubled Text: History and Language in Basic Writing Programs	4:00	Ana Varela, A Structural Explanation-Children's Ap- parent Failure to Respect Condition B	4:00	Susan Gass & Evangeline Varonis, Miscommunication and the Non-native Speaker

7:00

dinner @ the Top of the Charles \*

\* Advance reservations are required for the dinner.

\*All sessions : College of Basic Studies, 871 Commonwealth Avenue.

# Sunday, October 15

MORNING

## Literacy

Interpretations of Literacy Events	
9:00	Luis Moll, Toward Community-Mediated Instruction
9:45	Emilie Vanessa Siddle, Minority Perspectives on the Use of Intervention Strategies in Writing Classrooms
10:30	Linda Williamson Nelson, Code Shifting in the Oral Life Narratives of African-American Women
11:15	F. Niyi Akinraso, Becoming Literate in a Nonliterate Society: Literacy in an African Village

## First Language Acquisition

Language Development: Syntax and the Lexicon	
9:00	Ullman, Pinker, Hollander, Prince, Rosen Growth of Regular and Irregular Vocabulary & Onset of Overgeneralization
9:45	Kim, Pinker, Prince, & Prasada, Why No Mere Mortal Has Flown Out to Center Field
10:30	Beckwith, Tinker, & Bloom, The Acquisition of Non-Basic Sentences
11:15	David Lebeaux, A Formal Syntax of Telegraphic Speech

## Second Language Acquisition

Age Effects & The Role of UG in Second Language Acquisition	
9:00	James E. Flege, Effect of Age of Learning on the Production of L2 Vowels and Consonants
9:45	Eliassa Newport & Jacqueline Johnson, Critical Period in L2A: Maturation Changes in Acq. of Syntax and Morph.
10:30	Robert Bley-Vroman, Universal Grammar in Adult Foreign Language Learning
11:15	Bonnie Schwartz, L2 Knowledge: What is the Null Hypothesis?

\* All sessions : College of Basic Studies, 871 Commonwealth Avenue.

AFTERNOON

12:00

*luncheon* \*

James Paul Gee -- Stanzas: The Intersection of Psycho and Socio Linguistics

Sociocultural Perspectives on Literacy	Language Development: Syntax and the Lexicon	Age Effects & The Role of UG in Second Language Acquisition
1:45 James V. Wertsch, Literacy as Mediated Action	1:45 Paul Bloom, Semantics and the Count-Mass Distinction	1:45 Aafke Hulk, Parameter Setting and the Acquisition of Word Order
2:30 Peter Tulviste, Heterogeneity as a Problem of Verbalization	2:30 Lederer, Gleitman, & Gleitman, Syntactic Bootstrapping	2:30 Lynn Eubank, Sentence Matching, German and Universal Grammar
3:15 Shoshana Blum-Kulka, Conversational Structure of Children's Oral Narratives	3:15 Celia Jakubowicz, Maturation or Invariance of Universal Grammar Principles in Language Acq.	3:15 Helmut Zobl, Grammaticality Intuitions of Unilingual & Multilingual Learners
4:00 Catherine E. Snow and Patton Tabors, Parental vs. Child Responsibility for the Structure of Oral Narratives	4:00 Naigles, Golinkoff & Hirsh-Pasek, Comprehension of the Passive by Two-year Olds	4:00 Lydia White, Resetting the Verb Movement Parameter - Positive & Neg. Evidence

\* Advance reservations are required for the lunch.

\*All sessions : College of Basic Studies, 871 Commonwealth Avenue.

FRIDAY MORNING:

Literacy in the Humanities -- Morse Auditorium, 602 Commonwealth Avenue

\* \* \* \* \*

**Dennie Palmer Wolfe**, Harvard University

**Speaking in Tongues: Literacy in High School**

Literacy is a life-long construction, requiring teaching, learning and models at all ages. But our knowledge of literacy-learning is spotty, concentrating on either the onset or the adult learning of literacy. We know little about what happens "in the middle."

This paper draws on three bodies of data: 1) intensive home observations of a parent and adolescent child working together on a book report; 2) observations of English literature classrooms; and 3) interviews with teachers. The point is to develop a rich picture of what adolescents might learn about literacy (as something more than decoding) and to inquire into the ways in which schools often presume, rather than teach, that knowledge.

\* \* \* \* \*

**Nina Mikkelsen**, Indiana University of Pennsylvania

**Toward Greater Educational Equity in Literacy Education: Storymaking and Non-Mainstream Children**

Educational systems, as they now function, do not provide equal opportunity for minority students. Currently, the tension of assimilation of culture and the transmission and preservation of it works to suppress non-mainstream language in favor of the structures of the social majority. If schools are to address this inequality, current approaches to literacy instruction must begin to focus on the personal and cultural experiences of minority children.

One way to tap the resources of non-mainstream children is through greater attention to the oral composing and transmitting of story, as a way of bringing together personal and cultural language and the appraisal of life experiences. Storymaking, a way for children to respond to literature and create forms of their own literature, enabled ten members of a "lower ability" class to become engaged in a collaborative classroom literacy experience that later led to higher scores in achievement testing. The process of composing for these children was one rooted in the storytelling devices of their own cultural experience:

analogical thinking and reasoning and expression in group literacy events.

Questions Labov used with inner-city children expanded the natural storymaking mode that the children generated when responding to literature, journal entries, and their own classroom sharing of experiences. Ultimately, observation of alternative cultural learning styles, personal issues, as they arose in story "talk," the processes children revealed as they composed stories, as well as the story "products" themselves, led me to see alternative teaching styles for classrooms of both mainstream, as well as non-mainstream, children.

Minority students, I have concluded, have a great deal to contribute to the language development of non-minority students. If pedagogic strategies for literacy instruction are revised to build on, rather than exclude, cultural variables, all students will benefit.

\* \* \* \* \*

Francis J. Sullivan, Temple University

### **The Social Construction of Academic Literacy**

Recent work on the development of literacy in the humanities (Bartholomae; Bizzell; Gee) has viewed that development largely in terms of students' "initiation" into an academic "discourse community." From these perspectives, students are seen as "apprentices" who must struggle to internalize interpretive practices and methodological principles appropriate to the production and interpretation of texts in those fields of discourse collectively titled The Humanities. Much of this work has represented itself as a corrective to certain "text-centered" models of literacy (Olson; Ong) that have conceived of development as progress from oral (context-bound) orientations toward texts to literate (context-free) orientations.

From a perspective offered by work in post-structuralism and Marxism (Derrida; Foucault; Eagleton; Williams), I argue, however, that models of academic literacy conceived in terms of interpretative practices or in terms of methodological principles are complementary, rather than opposed, to text-centered approaches. These models depend upon socially constructed oppositions that reify particular practices or principles as "academic," in contrast to other practices or principles now labeled "non-academic." The meaning of texts thus remains "fixed," in that their meaning is narrowed to the practice of interpretation, with the "correct" interpretation now guaranteed, not by the text itself, but by the use of methodological principles appropriate to a given field of discourse. At the same time, meanings produced through the use of "non-academic" practices or principles can be dismissed as without foundation.

Such a critique argues, not for still another model of the development of academic literacy, but for a re-conceptualization of existing models. Using recent work in linguistics (Pratt; Cameron) and social construction (Brodkey), I outline a framework premised on the

notion that practices, principles, and texts are never fixed nor singular but are multiple and conflicting. Conceived this way, the oppositions inherent in this model are simultaneously necessary, in that their meaning can derive only from that opposition, and fictive, in that they can be invoked at any time to define any use of language as academic or non-academic. In such an ambiguous and conflicting context, students' development is always at risk. To be ratified institutionally as developing literate readers and writers, students must demonstrate their competence in the work of production and interpretation. As a response to conflicting demands, however, the very form of their work provides grounds for teachers to evaluate that work negatively.

=====

Acquisition of Phonology -- George Sherman Union, Terrace Lounge,  
775 Commonwealth Avenue

\* \* \* \* \*

**B. Elan Dresher, University of Toronto**

#### **A Parameter-Based Learning Model for Metrical Phonology**

I will describe a learning model based on a parametric theory in phonology, the metrical theory of stress (cf. Hayes 1981; Halle and Vergnaud 1987). The model, developed together with Jonathan Kaye (Dresher and Kaye 1988), is provided with a Universal Grammar which contains a series of open parameters--main stress is on the left/right; feet are bounded/unbounded; heads are on the left/right; stress is/is not sensitive to syllable quantity; etc.--and a set of cues which tell it how to set the parameters on the basis of input data, which consists of words supplied with stress marks. I will discuss a number of issues arising from this research, including problems of cross-parameter dependencies and incremental learning. The interaction of these metrical parameters is more complex than that of the syntactic parameters studied to date, and so provides another perspective on the acquisition of parametric systems in general.

\*\*\*\*\*

**John Archibald, University of Western Ontario**

### **Metrical Parameters: A Neglected Area of Research**

In this paper I am going to outline the benefits that can be reaped through an investigation of the acquisition of second language (L2) metrical patterns. The majority of work on the acquisition of phonology has focussed on the acquisition of segmental phonology. Much less work has been done on the acquisition of suprasegmental phonology. Most of the existing studies ignore the integral relationship between the segmental system and stress assignment.

Also in this paper I am going to emphasize the need for researchers to look at both **production** and **perception** data when conducting research within the principles and parameters framework. Some researchers seem to equate an ability to perceive violations in L2 data (i.e. grammaticality judgment tasks) with acquisition of the L2 parameter setting. The study of stress makes it clear that in certain instances the subjects may be able to perceive the correct form but not produce it. The study of the acquisition of the principles of stress-assignment also provides an interesting forum for studying an area of phonology that is certainly not as influenced by motor ability to the extent that segmental phonology is.

\*\*\*\*\*

**Katherine Demuth, Brown University**

### **Theoretical Problems in the Acquisition of Prosody**

This paper addresses the question of how children learn prosodic systems. It focusses on three issues:

- 1) How and when children learn that their language is either stress-intonational (e.g. English), lexical tonal (e.g. Chinese), accentual (e.g. Japanese) or grammatical tonal (e.g. Sesotho);
- 2) How and when children learn the ordering of tonal rules and where pitch assignment takes place (e.g. at underlying, lexical or postlexical levels of representation); and
- 3) Is there acquisition evidence that would inform the proposed universality of the Obligatory Contour Principle (OCP)?

Spontaneous Sesotho production data indicate that:

- a) Sesotho-speaking 2-year-olds know they are learning a grammatical tone language even if lexical tones are not accurate;
- b) a rudimentary rule of High Tone Spread may be present at two years, but rules of High Tone Deletion and grammatical tones are being learned around three years; and
- c) there is no evidence of robust overgeneralization of the OCP.

\* \* \* \* \*

**Ann M. Peters**, University of Hawaii

### **From [ə] to Grammar: The Emergence of Grammatical Morphemes**

"Filler syllables" have not been seriously studied as a source of information about children's acquisition of closed-class grammatical words. This paper presents bi-weekly data from a child between 22 and 28 months and shows how his earliest attempts at producing grammatical words (which were "fillers" as in *pick a up, n do it, put l top*) did indeed evolve towards adult-like forms over this 6-month period. We look at how these fillers approach their phonetic targets, at how particles emerge according to distributional slots (e.g. whether pronouns emerge first as subjects or objects of verbs, or which appear first: prepositions or their homonymous verb particles), and at how phonological and distributional information get sorted out relative to each other. An important methodological conclusion is that, since neither syntax nor phonology is learned independently, researchers who do not have access to phonetic data may miss crucial aspects of grammatical development.

\* \* \* \* \*

**Paula F. Marentette & Laura Ann Petitto**, McGill University

### **Babbling in Sign Language: Implications for the Ontogeny of Language in the Developing Brain**

**Introduction:** In the present paper we will provide first-time evidence for the existence of canonical sign language babbling in profoundly deaf children of deaf parents. We maintain that canonical sign babbling is equivalent to canonical vocal babbling observed in hearing children; babbling is a modality-free phenomenon in the ontogeny of language. As noted by Shatz and others, we will conclude that human language constitutes an "open

genetic program," i.e., the language capacity is internally constrained with regard to the structures that it will realize; however, in the face of environmental variation, it is flexible or "plastic" with regard to the modality it will adopt to realize this capacity.

**Methods:** 5 infants were examined: 2 profoundly deaf children of deaf parents, acquiring ASL; 3 hearing infants of hearing parents. Monthly videotaped sessions were conducted, at ages 6-24 mths.

**Results:** Several factors provide strong evidence that canonical signed babbling is equivalent to canonical vocal babbling: a) similarity of onset time; b) phonological structure; c) syllabic and prosodic structure; d) "canonical babbling ratio"; e) reduplication; f) stages of babbling (static, syllabic, jargon); and g) continuity between canonical sign babbling and early signs.

**Conclusions:** Clearly, the existence of sign babbling calls into question assertions that vocal babbling exists solely as the "motoric flexing" of the articulatory apparatus responsible for speech. The existence of canonical sign babbling suggests that babbling is an expression of the language capacity, *per se*. The equivalent onset time of signed and vocal babbling suggests that this event is under maturational control, and that acoustic and visual units are equi-potential transmission/reception channels in the ontogeny of language.

=====

Linguistic Awareness of the Child -- George Sherman Union Auditorium,  
775 Commonwealth Avenue

\*\*\*\*\*

**Ioanna Berthoud-Papandropoulou, University of Geneva**

### **How Does Translation Work? The Development of A Metalinguistic Concept in Children Aged 4 to 9**

The following experimental situation was used to study the conceptualization of the activity of a translator-interpreter: Children were shown two puppets, representing two speakers, and they were told that each of them spoke only one language, different from the language of the other. A third puppet was then introduced, representing somebody who speaks both languages. Can he help the two others to understand each other? If so, how? Thus the children (Genevan monolinguals) were not asked to translate but rather to reflect upon the activity of a bilingual as a mediator between two monolinguals.

Results show that the idea of translating is a late development, preceded by that of various other roles the bilingual can play in the communication between the two monolinguals. The developmental sequence informs us about children's conceptions of

various aspects of language and verbal communication, e.g. the relation between form and meaning, and between speaker and utterance.

\*\*\*\*\*

**Ruth A. Berman**, Tel-Aviv University

### **Children's Knowledge of Verb-Structure: Data from Hebrew**

Acquisition of the notion "possible verb" is investigated in Hebrew, a language which imposes distinct well-formedness constraints on the morphophonology of items classifiable as verbs (Bat-El 1989). Children aged three to nine years old and a group of adults were asked to coin verbs from familiar nouns and adjectives which have no related verb in the established lexicon (e.g. Hebrew has a verb *le-saben* 'to soap' derived from the noun *sabon*, but not a verb such as *le-talek* from *talc* 'talcum-powder'). Even the youngest children distinguished verbs from other words, producing items that sounded verb-like rather than like nouns or adjectives. Children also demonstrated early knowledge of the preferred means for deriving denominal verbs in Hebrew, using the two morphological patterns (*binyan* structures) favored for this purpose, rather than a high-frequency pattern phonologically less suited to denominal derivation (Bolozky 1978). Yet until school age, children produced forms that violated morpheme-structure constraints for assigning affixal patterns to consonantal roots in Hebrew verbs. Acquisition of word-structure is shown to depend on an interplay of universal distinctions (e.g. verbs versus nouns) with later-developing knowledge of different levels of language-particular constraints.

\*\*\*\*\*

**Trisha Svaib & Susan Gelman**, University of Michigan

### **Children's Strategies for Acquiring Novel Lexical Hierarchies**

Lexical hierarchies are often difficult for children to learn. However, certain conceptual levels within these hierarchies may be easier for children than others. The linguistic form used to label these conceptual levels may also affect the ease with which children can learn hierarchies. This study examined how both of these factors affect children's strategies in acquisition.

Three- and five-year-old children were taught novel lexical hierarchies in which the conceptual level (basic + subordinate, e.g. armadillo vs. hairy armadillo; or basic + superordinate, e.g. armadillo vs. edentata) and linguistic form (single noun--e.g. "tosh"; or

compound noun--e.g. "dake-tosh") were varied. As expected, compound nouns were easier to learn than single nouns, even though both parts of the compound identified novel categories. The task was also easier for five-year-olds than for three-year-olds. Children frequently treated hierarchically related single nouns as naming mutually exclusive subsets. Overall, the superordinate level was the most difficult to acquire. Thus, both conceptual level and linguistic form affect children's acquisition of lexical hierarchies.

\* \* \* \* \*

**William E. Merriman & Joneen Schuster, Kent State University**

### **Curbing Preschoolers' Mutual Exclusivity Bias: The Effects of Typicality, Phonological Similarity and Token Familiarity**

Much recent research in lexical development has concerned children's interpretative biases. Several studies have examined the Mutual Exclusivity (ME) bias (Markman & Wachtel 1988; Merriman & Bowman in press), which is the disposition to keep words from having referents in common, and have found that its effect on preschoolers' interpretations of new words is inversely related to the power of the cues against it. The current study assessed the power of three such cues in a disambiguation task, in which children were shown something they could name and something they could not name and were asked, "Which one is a *zav* (or some other artificial name)?" In previous studies, preschoolers have shown a very strong tendency to maintain ME by selecting the unnamed object in these pairs. Our results indicate that this tendency can be reduced by each of the three cues: 1) by making the named objects atypical; 2) by pre-exposing the unnamed objects; and 3) by using names that sound like those for the named objects.

\* \* \* \* \*

**Ray Dougherty & Erin Tinker, New York University**

### **Learnability and Language Variation**

We show how to evaluate learnability theories according to their claims about 1) the learner's linguistic community and 2) the sources and limitations of language variation and change. The heterogeneity of natural language communities requires the LAD to construct a grammar that marks some of the input data as ill-formed. We show that the E(xternal)-language assumptions (underlying the computational model of learning offered by Wexler & Culicover; Berwick & Weinberg; Pinker) make it logically impossible for an E-LAD to

construct a grammar that marks some of the input data as ill-formed. Consequently, the E-LAD models are restricted to the description of an ideal speaker-hearer in a homogeneous environment and cannot be extended to real-world acquisition where language change and variation exist. We suggest an alternative, an I(nternal)-LAD, in order to clarify basic terms in acquisition theory such as error, target language and heterogeneous community.

=====

FRIDAY AFTERNOON:

The Discourse of Mathematics -- Morse Auditorium,  
602 Commonwealth Avenue

\* \* \* \* \*

Glenn M. Kleiman & Marlene Kliman, Education Development Center

### **Discourse and Collaboration in a New Elementary Mathematics Curriculum**

In a project funded by the National Science Foundation, we are defining a new approach to teaching and learning elementary mathematics, developing prototype curriculum materials, and testing these materials in fourth grade classrooms. Our approach emphasizes the importance of communication, both oral and written, in the mathematics curriculum. The materials include 1) activities in which students pose their own problems and 2) activities in which groups of students work collaboratively to solve problems. Throughout the curriculum, students write about, discuss, and compare their strategies for solving problems, and they work together to create class charts of their observations, discoveries, and accomplishments. Students use physical manipulatives, measurement tools and computers, as well as printed materials.

In this presentation, we will discuss our findings about the types of problems students pose for their classmates and how children describe their problem-solving strategies. We will also discuss student-student and teacher-student interactions during collaborative problem-solving.

\* \* \* \* \*

**Judah L. Schwartz, Harvard University**

### **Semantic Aspects of Quantity**

Quantitative modeling of the external world involves the use of 'quantities' rather than numbers. The formal arithmetic (algebraic) and semantic properties of quantity are defined and explored. In addition, referent-preserving and referent-transforming compositions of quantity are presented and their consequences derived.

The semantic destitution of traditional mathematics instruction is examined in the light of the above and a proposal for curricular reform presented.

\* \* \* \* \*

**Mary Catherine O'Connor, Boston University**

### **Every Fifth Tree is a Pine: Building Understandings and the Language of Word Problems**

Past work on children's understanding of word problems has largely focussed either on the mathematical knowledge tapped by the problem or on narrow linguistic issues such as lexical knowledge. Two issues have been less studied: 1) the ways that language mediates between the content of a mathematics word problem and an understanding of it, and 2) the awareness children (may or may not) have of the special demands of mathematical language as opposed to everyday language. Finally, much remains to be done in the way of spelling out effective research approaches to the study of these issues. In this paper I will discuss excerpts from think-aloud protocols of third graders solving word problems, presenting analyses of particular mappings between language and understanding, and highlighting methodological issues and obstacles that must be faced in research on language and mathematics.

\* \* \* \* \*

**Sarah Michaels & Vicki Morse**, The Literacies Institute; **Judy Richards & Harvey Schuster**, Graham & Parks Alternative School

### **"Beam Me Up Math Mode, Scottie": A Preliminary Look at Different Ways of Reading Math Problems**

This paper focusses on the interpretation of math story problems by elementary school children, from second through fifth grade. Through an analysis of think-aloud protocols, it is possible to characterize what actually happens when students from different discourse backgrounds read, reason through and solve particular math problems. In this work, we attempt to document the kinds of "reading" between the lines required in solving the problems and the recurring mis-readings or faulty inferencing that take place when students fail to get the correct solution. In the case of non-mainstream students, these "ways of reading" are not generally understood or built on in typical school math instruction. The goal is to examine closely a select number of story problems and understand the linguistic and interpretive assumptions and processes at work that lead children to correct and incorrect solutions, independent of the mathematical calculations involved.

=====

Theories of Evidence -- George Sherman Union Auditorium,  
775 Commonwealth Avenue

\* \* \* \* \*

**Stephen Crain**, University of Connecticut

### **Why Production Precedes Comprehension**

In addressing issues in language learnability, elicited production tasks have several advantages over the more usual comprehension tasks (as well as over the use of children's spontaneous productions). Elicited production studies allow unparalleled experimental control and reliability; they offer more revealing data; and they eliminate many of the extraneous demands associated with comprehension tasks such as figure manipulation or picture verification. The difficulty with this methodology is to contrive contexts which are uniquely felicitous for the construction under investigation but which discourage simpler ways of expressing the same message. I will discuss how these problems have been

overcome in investigating children's knowledge of:

- 1) movement through COMP in long-distance wh-questions;
- 2) lack of subject-auxiliary inversion in embedded questions; and
- 3) the use of pronouns as bound variables.

\* \* \* \* \*

**Jane Grimshaw**, Brandeis University

### **Linguistic Experimentation**

A distinction is often drawn between the kind of experimental work conducted in psychological investigation, including language acquisition, and the research paradigm of theoretical linguistics, with its dependence on grammaticality judgments. I will argue that contrary to appearance, the methodology is essentially the same in the two cases, and the differences reside primarily in what is conventionally reported.

The issues or "problems" associated with the interpretation of grammaticality judgments do not undermine the paradigm in any way at all but are simply characteristic of the interpretation of performance data in general. Reasoning from performance to competence is never possible without invoking bridge principles which relate statements at one level to statements at the other, hence the relationship between experimental results (whether "linguistic" or "psycholinguistic") and hypotheses about knowledge is highly abstract. The abstractness of the relationship can be illustrated with respect to the recent literature of language acquisition and theoretical linguistics.

\* \* \* \* \*

**David Birdsong**, University of Florida

### ***Lux et Verisimilitudo*: Judgment Data in Second Language Acquisition Theory**

Aspects of variability of linguistic intuitions (Carroll, Bever & Pollack 1981; Nagata 1988) are accommodated within general cognitive models applied to metalinguistic performance. The **theory of signal detectability model** (Green & Swets 1966; Weissman 1974) assumes: signal-to-noise ratios (here, subjects' facility in distinguishing deviant strings [signals] from ambient well-formed strings [noise]); subjects' expectations and response biases; and subjects' assessments of risks/rewards associated with a given

judgment. The **concept formation model** assumes, following Barsalou (1987), that categories (here, "well-formedness") are not represented as invariant mental constructs, but rather as protean concepts subject to contextual considerations such as preceding items in a stimulus set.

Interpretation of L2 learners' judgment data, especially when compared with those of native speakers, is problematic in the absence of coherent models of metalinguistic performance. Accordingly, the preceding serves as background for discussion of studies relating to learners' acquisition of native competence in L2 (Coppieters 1987; Flynn 1989; Johnson & Newport 1989; Schachter 1988).

\* \* \* \* \*

**Karin Stromswold, MIT/Harvard Medical School**

### **Using Naturalistic Data: Theoretical And Methodological Issues**

Kayne (1984) argues that one of the main differences between English and French is that the two languages have different settings for the parameter which determines how prepositions case-mark noun phrases. According to Kayne, the English setting permits the existence of double-object datives, exceptional case-marking (ECM) constructions, preposition-stranding constructions, and *for*-infininitivals, whereas the French setting (the unmarked setting) does not. Kayne's theory has specific acquisitional implications. If Kayne is right, one would predict that in English all of these odd English constructions should be acquired at the same age. I examined the spontaneous speech transcripts of 5 children to determine whether there is any acquisitional support for Kayne's theory.

I present this work as a case-study, through which the theoretical and methodological issues involved with using transcripts of spontaneous speech are to be discussed. Some issues I pay particular attention to are:

- measures of "acquisition" and "mastery";
- methods that can be used to control for confounding linguistic factors;
- methods that can be used to control for confounding extra-linguistic and pragmatic factors;
- the effects of adult input on acquisition;
- guidelines for the kinds of acquisitional questions that are well-suited to transcript analyses

=====

American Sign Language -- George Sherman Union, Terrace Lounge,  
775 Commonwealth Avenue

\* \* \* \* \*

**Ted Supalla**, University of Rochester

**Test Battery for American Sign Language Morphology and Syntax**

A battery of tests of production and comprehension of a wide variety of structures in ASL syntax and morphology have been piloted and refined on native and late learners of ASL through our studies of maturational and environmental differences on the course and outcome of language learning among deaf children and adults. In this presentation I will demonstrate how these tests work and how we analyze and interpret the data obtained from the tests.

The battery includes 12 tests evaluating subjects' control of ASL word order, subject-object agreement morphology and associated pronominalization structures, non-verb derivational morphology, aspect and number morphology, and morphology of verbs of motion. Full details concerning the linguistic rules surrounding these structures in ASL, and the counterbalancing, control procedures, selection of lexical items, and the like in test design are described in the test manual now in draft (T. Supalla, Newport, Coulter, Singleton, S. Supalla, & Metlay, in preparation). For each test there is also a set of coding procedures we have devised, and a set of computer programs, written to run in Lotus 1-2-3 on the IBM-PC, which score the test responses relative to native ASL usage and perform various analyses of responses to determine the patterns of usage for non-native signers. Such procedures have already been worked out during our use of the tests and will be written out in the test manual for other ASL researchers to use the tests and software in accord with their design.

The goal of this presentation is to acquaint those who are interested in studying the acquisition or control over these ASL structures with our test materials and coding procedures.

\* \* \* \* \*

**Sam Supalla**, University of Illinois

**Segmentation of Manually Coded English** (Abstract unavailable).

\*\*\*\*\*

Jenny L. Singleton, University of Chicago & Elissa L. Newport, University of Rochester

### **Restructuring of Language from Impoverished Input: Evidence for Linguistic Compensation**

This study investigates the effects of impoverished input upon a child's language development. Previous literature suggests that when children are exposed to inadequate input, they demonstrate robust capabilities of linguistic compensation.

Simon (age 9) is a profoundly deaf child, whose **only** input with respect to American Sign Language (ASL) comes from his late-learner deaf parents. Simon's performance on two ASL structures--sign order and verb inflection--is compared to his parents' performance in order to determine whether, and how, linguistic compensation occurs.

Our analyses reveal that Simon's linguistic output is far better structured than his input. Simon's parents show only narrow patterns, with some ASL forms omitted altogether and others used inconsistently. In contrast, Simon displays broad, regular and systematic patterns, using the same forms as his parents, yet in very different ways.

Finally, we explore possible mechanisms, and propose a Reanalysis Model, by which Simon achieves an integrated system from his more fragmentary input.

=====

#### **FRIDAY EVENING: KEYNOTE ADDRESS**

Metcalf Science Center Auditorium, 590 Commonwealth Avenue

**William Labov** , University of Pennsylvania

#### **The Child as Linguistic Historian**

=====

SATURDAY MORNING:

*All sessions at College of Basic Studies, 871 Commonwealth Avenue*

Literacy in the Workplace

\* \* \* \* \*

Sylvia Scribner, City University of New York

**Talking and Working** (Abstract unavailable).

\* \* \* \* \*

Bruce Dorval, Long Island University

**Speech-Event Analysis of Work-Training Talk**

This paper provides an analysis of two work-training sessions. Close analysis of audiotapes of those sessions is performed; an analysis focuses on the initiation of the session; the allocation of speaking rights; management of misunderstandings; focus of training; and termination of the session. The goal is to describe how work-training is accomplished as a socially constructed event, how its structure is jointly produced by all of the participants. Comparing the analyses of the two sessions reveals structural similarities and differences. The similarities reflect basic features of work-training, how it is distinguishable from other kinds of speech events such as group discussion. The differences point up the influence of the particular members on the structure of a speech event, in particular, the perspective of the trainer on the nature of training and the role of the workers in organization. Implications for activity theory are discussed.

\* \* \* \* \*

John Dore, Gibbs Institute

**The Social Semiotics of Work-Training Talk**

The goal of this analysis is to reveal the interactional dynamics between trainers and trainees during on-the-job training sessions. The talk in these sessions is first conceptualized in terms of units of institutional discourse analysis: i.e. members in the

interaction are seen as institutional agents either as representatives (trainers) or as institutional recipients (trainees).

The discourse practices that constitute the co-construction of their activities are identified. One major goal is to describe the discourse features which make up the linguistic genres that the members construct together. There are elementary genres such as types of informational exchange and complex genres such as simultaneously justifying and resisting a given work procedure. As a particular focus, I identify discourse markers of power and solidarity that the trainers display during their sessions.

\* \* \* \* \*

**Chantale Héту**, University of Montreal

### **Work Communications in the Semiconductor Industry**

Production of integrated circuits involves the use of technical documents and conversations among workers, technicians and engineers in a bureaucratic setting. In this ethnomethodological study, workers' skills are seen both as verbally articulated knowledge and as work practices embedded in social relations. The focus is on language as part and parcel of cooperative work, instead of on the communication process as an activity *per se*. Skill is not simply an individual attribute but an ability acquired and used through interaction in a work team. Based on participant observation, this research makes use of interviews, ethnographic observation and a sociolinguistic analysis of conversations recorded during training and regular shifts. I observed the interactive construction of meaning in work conversations: more specifically, the ways people learned technical categories for an object that was completely unknown to them before the training period, and later, how the work team reached agreement on presumably objective technical issues when making decisions on problem cases. Comparison of workers' conversations during training and regular shifts reveals that a part of their knowledge becomes implicit in their active understanding of each case or situation.

\* \* \* \* \*

**Stephen Reder, Northwest Regional Educational Laboratory**

**Language, Literacy and Coordinated Action: The Impact of Technology on Workplace Communication**

Technologies of communication affect the ways in which individuals cooperate in the workplace. The emergence of new technologies in the office (such as electronic mail, voice mail and fax), as alternatives to face-to-face meetings, telephone and hard copy, is reshaping the ways in which workers collaborate and specialize their activities. Their communication patterns are changing in corresponding ways. New knowledge and skills are required to utilize these communication technologies effectively and to integrate them into coordinated group action. Workplace literacy needs to be placed in a context of multiple communication and information system technologies.

\* \* \* \* \*

**Rosalie Schwartz, CUNY Graduate Center**

**Gender Discrimination in the Workplace: Versions of Reality in Conflict**

As prevailing category systems are challenged by women entering traditionally male areas of work, we need to understand and characterize the complexity of meanings which are produced, transmitted and circulated in these situations.

In this paper we examine audiotaped conversations of a young woman being trained for a graded job of material handler in an electronics factory stockroom. After four days of training, she withdraws her application. Our analysis is grounded in the material positions that people (like the stockroom supervisor, the union representative, the trainer) take regarding the outcome of her on-the-job training and in the nature of the work tasks that this training entails. Using comparative data of four men training for the same job, observers' commentaries, and technical and ethnographic information, we offer a preliminary way to view what we consider a central conflict: what version of reality concerning the job will prevail?

We suggest that this approach provides a link to discussing broader labor issues: in this case, interpretation and manipulation of the job description.

=====

## Acquisition of Syntax: Bound Variables

\* \* \* \* \*

**Jill deVilliers**, Smith College & **Tom Roeper**, University of Massachusetts, Amherst

### Learning Bound Variables

We assume that three concepts are crucial to the use of bound-variable (BV) structures in language:

- 1) a conceptual notion of isomorphism
- 2) a linguistic capacity for indexing
- 3) level-ordered constraints

The notion (3) refers to whatever mechanism guarantees that a BV interpretation is possible for (4) but not (5):

- 4) There is a horse for everyone (each person has a different horse)
- 5) There is a horse that everyone is riding on (all have one horse)

The constraint is some form of "subjacency," putatively applying at Logical Form (LF). We undertook a range of studies with preschool children exploring the availability of bound variable readings for different kinds of sentences.

We conclude: the notion of BV is available quite early, but the capacity to link this response to grammatical environments, e.g. indexed Logical Form representations, does not emerge immediately. Initial stages reflect a cognitive capacity to assign isomorphism. Such an evolution violates the subset principle if it is construed entirely as a grammatical phenomenon.

In theoretical terms, we hypothesize that the child moves from an adverbial use of quantification to the representation of quantifiers linked directly to NPs when functional categories (like Determiner Phrase) emerge. In sum, the study of the acquisition of bound variables provides us with a view of how the child systematically discards pragmatic-cognitive interpretations in favor of particular grammars.

\* \* \* \* \*

**Helen Goodluck**, University of Ottawa

### **The Development of Operator Movement**

Children's knowledge of the possibility of object gaps in purpose clauses, such as that in (1), was tested in two experiments. In the adult grammar, the object gap in (1) can be treated as the result of movement of an operator (O) to initial position in the subordinate clause:

1) John chose Bill to run up to.

The first experiment used an act-out task; the second used a pencil and paper task, in which subjects selected a written sentence as best fitting the meaning of a stimulus sentence. The first experiment tested 6, 8 and 10 year old children; few children showed awareness of the possibility of an object gap. The second experiment tested 8 and 10 year olds. Ten year olds showed an adult-like pattern of responses. Eight year olds also showed awareness of object gaps in purpose clauses and they extended this possibility to temporal clauses, which do not admit object gaps in the adult grammar. The results are discussed in the context of other studies of the development of movement rules.

\* \* \* \* \*

**Marie Labelle**, University of Quebec

### **Licensing of Empty Categories in Child Language**

This paper is based on a study of 1348 relative clauses produced by 108 French-speaking children (aged 3 to 6) in response to a picture-cued elicitation task. The results indicate that these children do not allow an empty category which is not properly governed, i.e. their grammar obeys the Empty Category Principle (ECP). The relevant data come from relativization from oblique and subject positions.

It will be shown that there is evidence for the use of 1) a Resumptive Strategy (in which the relative clause is introduced by the complementizer *que* together with a resumptive element in the target position) and 2) the complementizer *qui*; however, no relative clauses are introduced by *que* with a gap in subject position. Given that in subject position a trace preceded by *que* is not properly governed, it can be shown that as early as three, French-speaking children do not allow violations of the ECP.

\*\*\*\*\*

**Dany Adone & Maaïke Verrips, Max Planck Institut für Psycholinguistik**

### **The Acquisition of Empty Categories in Mauritian Creole**

This paper investigates the restrictions on the occurrence of empty categories in Mauritian Creole (MC) child language. First we present the grammatical properties of empty categories in MC. Secondly we present a detailed analysis of the acquisition data. Finally we discuss the theoretical implications of our findings.

Null-subjects and null-objects in MC can best be characterized as variables coindexed with an empty topic. Null-subjects must be properly governed by lexical INFL, whereas null-objects are properly governed by their governing verb. The acquisition data provide evidence that these empty categories are variables from a very early age. This opens up for discussion, the claim of Roeper et al. (1987), i.e. that variables emerge at a much later age.

=====

### **Neurolinguistics -- Tutorial Sessions**

\*\*\*\*\*

**Michael Matthews, Boston Veterans Administration Medical Center**

**Neuroanatomy of Language Function** (Abstract unavailable).

\*\*\*\*\*

**Marcel Kinsbourne, Boston University**

### **Plasticity in the Brain Basis of Language Development**

In 97% of normal people, language development is based on the maturation of the left cerebral hemisphere. However, among the rest, the right hemisphere participates in generating normal language. Should the left hemisphere be damaged before or soon after birth, the right hemisphere will often assume control of language processes. This results in language development which is psychometrically normal, although specific tests of syntactic skill indicate a residual limitation. Although it is most often complete when left-sided damage is early, right hemisphere compensation can be demonstrated at any age.

In order to explain developmental language and language-based reading disability, one has to invoke malfunction of both hemispheres. Recent anatomical and psychophysiological evidence supports this assumption.

\* \* \* \* \*

Jyotsna Vaid, Texas A & M University

### **Repercussions of Brain Maturation on Second Language Functioning**

What are the repercussions of brain maturation on the acquisition and representation of a second language? While there is little direct evidence bearing on this issue, three indirect sources of information will be reviewed. These include:

- 1) studies of hemispheric specialization of language functions in bilinguals who acquired their second language in infancy or in adolescence;
- 2) clinical investigations of bilingual aphasics with differing language acquisition histories;
- 3) theoretical models of the ontogeny and development of brain lateralization as well as their implications for second language functioning.

\* \* \* \* \*

Susan Curtiss, UCLA

### **The Effect of Age on First Language Acquisition**

In Lenneberg's (1967) discussion of a Critical Period for first language acquisition (L1A), two separate points concerning language acquisition were made for which supportive evidence is increasing: first, that the capacity for L1A is highly constrained maturationally; and second, that there is a fundamental tie between L1A and cerebral organization for language.

With reference to the first point, there is increasing evidence that the acquisition of grammar in particular is vulnerable to late age at acquisition. Both cases of prolonged linguistic isolation and studies of delayed L1A in the deaf community demonstrate substantial limitations on the acquisition of morphology and syntax in contrast to other aspects of the linguistic/communicative system.

With reference to the second point, neurolinguistic studies of these same populations indicate a consistent failure to establish normal patterns of cerebral asymmetry for language. This tutorial will explore both points in discussing the effects of age on L1A.

=====

## SATURDAY AFTERNOON:

*All sessions at College of Basic Studies, 871 Commonwealth Avenue*

### Literacy and Ideology

\* \* \* \* \*

**James Paul Gee**, University of Southern California

### Literacy, Linguistics, Ideology and "Mushfake"

This paper will take a "discourse-based" view of literacy, where the notion of "discourse" is construed broadly to include "combinations of saying (/writing)-doing-being-believing-valuing" (things I call "Discourse" with a capital "D"). I will argue, in particular, that "ideology" is not just an "add on" to literacy practices, but an integral part of them, because ideology is, in fact, an integral part of the production of language in any form. The approach taken in this paper can lead, I argue, to an integrated view of psycholinguistics and sociolinguistics. However, I will concentrate here on the acquisition of Discourses, the interaction of home-based Discourses and public-sphere Discourses, and the implications of these concerns for non-mainstream students. I will close by appealing to a notion of "Mushfake Discourse" (I borrow the term "mushfake" from prison culture), a concept that can, I believe, incorporate non-self-defeating notions of resistance into theories of critical pedagogy.

\* \* \* \* \*

**Hilary Janks**, University of the Witwatersrand

### Critical Linguistics: A Starting Point for Oppositional Reading

Discourse is a complex interaction of a number of linguistic elements embedded in a complex interaction of a number of social relations. This paper considers a range of linguistic features in an attempt to ascertain how they serve to position discourse. Each feature is isolated to explicate its ideological functioning and is illustrated with reference to texts produced in South Africa from 1985 to 1988. This critical linguistic approach provides new questions to ask of discourse. New questions lead to new and different insights. Because readers are still left with the difficulty of interpreting these insights,

critical linguistics can only offer a starting point for oppositional reading. The many South African examples provide some understanding of the relationship between language and power in South Africa and make self-evident the need for oppositional reading which concentrates on **how** a text has been constructed and in **whose** interests.

\* \* \* \* \*

Michael Silverstein, The University of Chicago

### **The Trap of the Trope of Literacy**

An analogical complex of usages is revealed in discourse about (unmarked) 'literacy' (vs. 'illiteracy' and vs. 'orality'), including special 'literacies'--"cultural," "computer," "visual," etc. A cultural ideology of written/printed communication apparently underlies such discussions of literacies, even where they are directed to its cognitive aspects. Such an ideology 1) understandably emanates from the perspective of a stratified linguistic community organized with respect to standardization, and 2) facilitates the analogical construal of multiple literacies in the image of the strictly linguistic. From this perspective, literacy becomes the *explanans* and the enabling condition of cognitive "coding" empowerments of particular sorts. By contrast--and notwithstanding the utility of this model--empowerments so construed may more readily be understood as the objectified entitlements of a discourse of connoisseurship and identity *vis-a-vis* authoritative and canonical sources of power.

\* \* \* \* \*

James Collins, Temple University

### **The Troubled Text: History and Language in Basic Writing Programs**

This paper analyzes the relation between the ongoing debate over college curricula and the development of basic writing programs. It argues that as the content of college curricula has grown more problematic, there has been a 'turn to language' which has presented unexpected dilemmas for various institutional actors -- writing teachers, students, administrators and organized faculty. The argument develops an historical analysis of the relation between language, social order and social antagonism, but it focusses on a comparative case study of writing programs at an urban university. The study examines,

for a twenty year period, how changes in theories of writing, administrative control of writing programs, and the class, race and gender composition of students and faculty have all influenced the structure and practice of basic writing.

=====

### Acquisition of Syntax: pro & pronouns

\*\*\*\*\*

**Nina Hyams, UCLA & Kenneth Wexler, MIT**

#### **Subjectless Sentences: Some Alternative Accounts**

There have been a number of hypotheses concerning subjectless sentences in child language. They range from 1) a processing account, according to which children omit subjects due to processing limitations on language production (Pinker 1984; Bloom 1989); to 2) a pragmatic account, which attributes the dropping of subjects to the fact that information about subjects is recoverable from pragmatic context (Greenfield & Smith 1986); to 3) a grammatical account, in which subjectless sentences reflect a positive setting along the Null-Subject Parameter (Hyams 1983; Hyams & Jaeggli 1988). There are also analyses in which the dropping of subjects is attributed to an interaction of grammatical and processing factors (Weinberg 1987; Mazuka, Lust, Wakayama & Snyder 1986) or to an interaction of pragmatic and processing factors (Rizzi 1986). Each of these proposals makes different empirical predictions. In this paper we evaluate these competing analyses in terms of their theoretical and empirical adequacy.

\*\*\*\*\*

**Ana Teresa Fiallo & Sabrina Aurilio, University of Massachusetts at Amherst**

#### **Is it Snowing? A Probe into Children's Early Interpretation of Expletive Pronouns**

In this paper we will report on an experimental study with 24 children 2.3-3.4 years old. We tested their interpretation of ambiguous sentences such as "Could it be snowing?" using pictures, and in the second portion, using toys. For adult speakers, one reading of *it* is as a referential pronoun; the other is as an expletive. We found that the two readings were available for our subjects as early as 2.3 years old. Previous work has shown that

overt expletives appear in English simultaneously with the shift to an obligatory subject grammar. We have found that for some children, the expletive reading appears even before they have abandoned the initial null-subject stage. This finding is surprising if one assumes the recognition of the existence of expletive pronouns as the trigger for the restructuring of the initial child grammar.

\* \* \* \* \*

Cecile McKee, University of Arizona

### **Another Chapter in the Continuing Mystery of Condition B**

I conducted two identical experiments on Binding Conditions A and B in 2-5 year-olds: one on English-speaking children and the other on Italian-speaking children. Such a study can determine whether children's apparent difficulty with Condition B is universal or specific to English. The task used was a truth-value judgment task, which assesses children's knowledge of utterance-meaning pairs. The results were that both the English- and the Italian-speaking children showed knowledge of Condition A, but only the Italian-speaking children showed knowledge of Condition B. I conclude that children's failure on Condition B is language-specific, and that the mystery must be approached by considering differences between English and Italian.

\* \* \* \* \*

Ana Varela, Instituto Universitario Ortega y Gasset, Madrid

### **A Structural Explanation of Children's Apparent Failure to Respect Condition B**

To account for cases of non-complementarity in the distribution of pronouns and anaphors, Chomsky (1986) modifies the definition of governing category (GC). This modification introduces the concepts 1) Complete Functional Complex (CFC) and 2) BT (Binding Theory)-compatible indexing. These concepts permit a distinction between the GC of pronouns and anaphors in a way that allows a limited degree of non-complementarity. This paper extends Chomsky's proposals to explain children's apparent failure to respect Condition B of the Binding Theory. The proposal is that children initially consider the GC not to be the minimal CFC but rather the minimal maximal category that satisfies binding. On this account, children's acceptance of Condition B violations in the adult grammar is a

consequence of their syntax. Also noteworthy on this account is the existence of positive data for making the needed conversion to the adult grammar. Thus, this proposal circumvents the classic problem of "unlearning" in the absence of negative data. Finally, the present proposal accounts for cross-linguistic variation in the process of language acquisition.

=====

## Sociocultural Approaches to Second Language Acquisition

\*\*\*\*\*

**Teresa Pica, Nora Lewis, Lloyd Holliday, Jeanne Newman & Dom Berducci,**  
University of Pennsylvania

### **Language Learning Through Interaction: What Role Does Gender Play?**

This paper reviews our research on negotiated interaction, through which second language learners and their interlocutors request clarification and confirmation of each other's messages and modify or adjust their speech in response to these requests. We also review theoretical claims that these request-response exchanges assist second language acquisition by providing learners with opportunities to hear unfamiliar input adjusted to their comprehension needs and to modify their output toward greater semantic elaboration, structural complexity, and comprehensibility.

We report on several individual studies from our research which reveal ways in which the social context of learner-interlocutor interaction can influence the amount and type of negotiation and speech modification that occurs. Specific reference will be made to our recent research concerning effects of gender and cultural convergence/divergence of learner-interlocutor dyads on the quantity and quality of their negotiation and on the lexical, morphosyntactic, and discoursal features of their speech adjustments during four different tasks requiring spoken interaction and mutual comprehension.

\* \* \* \* \*

**Martha B. Crago**, McGill University

### **Teaching Silent Children to Talk a Second Language: Issues Concerning the Sociocultural Interface of Communicative Interaction and L2 Acquisition in Canadian Inuit**

This presentation reports on research findings that emerged during a longitudinal ethnographic study on the role of cultural context in the communicative interactions of young Inuit children and their care-givers. The study was conducted in two small communities of Arctic Quebec where Inuktitut is spoken on a constant, routine, daily basis.

The focus of the research was on discourse features of primary language socialization in Inuit families. The incongruity of these features with the discourse in classrooms taught in L2 by non-Inuit teachers surfaced in the research and raised several issues pertinent to the learnability and teachability of second languages for this native population. The presentation will discuss these home-school incongruities and resultant L2 issues. In doing so, the interface of the sociocultural aspects of communicative interaction and L2 acquisition in a "quiet" culture will be described.

\* \* \* \* \*

**Ceil Lucas & Clayton Valli**, Gallaudet University

### **Language Contact in the Deaf Community: Implications for Second Language Learning**

This paper will review the major issues of language contact in the deaf community and will provide a preliminary linguistic description and explanation of a variety of signing which results from language contact. This variety, while sharing many of the characteristics of American Sign Language (ASL), cannot be described strictly as a variety of ASL, and it appears to be produced when a specific set of sociolinguistic conditions is met. The objectives of the paper are:

- 1) to describe a data collection methodology that has been used to induce switching between ASL and what is being called contact signing;
- 2) to describe some aspects of the lexical, morphological and syntactic structure of contact signing;
- 3) to describe the sociolinguistic conditions which accompany it;
- 4) to re-examine earlier claims that contact signing is a pidgin, in light of the proposed

structural description and of current knowledge about pidgins, creoles and language contact in general.

Similarities and differences between spoken language contact situations and sign language contact situations will be discussed. It is hypothesized that because of the great variety in educational backgrounds and language backgrounds which participants bring to a language contact situation (that is, different exposures to both English in various forms and to ASL), the outcome of language contact is best described as a collection of individual grammars. This hypothesis will be discussed in light of the sign production of six dyads consisting of deaf native ASL signers, interacting with a) a deaf researcher, himself a native ASL signer; b) a hearing researcher; and c) each other, for a total of thirty minutes of videotaped data per dyad.

\* \* \* \* \*

Susan Gass & Evangeline Marlos Varonis, Michigan State University

### **Miscommunication and the Non-Native Speaker**

Examples of miscommunication abound in interactions involving native speakers and non-native speakers of a language. To explain why, we must go beyond an analysis of the purely linguistic features and consider pragmatic and/or sociocultural dimensions of the communicative event. Speech events are enriched and empowered by a social history that considers the relationships of class, status, power and solidarity and by a linguistic history that includes culturally-specific rules of discourse, politeness, conversational maxims, conversational inference and patterns of interpretation. A common language (and cultural background) greatly facilitates interpretation of an interlocutor's utterance. However, when interlocutors do not share the same native language or the same sociocultural rules of discourse, multiple possibilities for miscommunication exist.

In this paper we will discuss instances of "problematic communication" in non-native discourse. In so doing, we distinguish between two major types: 1) non-communication and 2) miscommunication. The latter is further subdivided into a) misunderstandings and b) negotiated communication.

Examples will be given of problematic communication relating to both perception of conversation (e.g. degrees of directness/ indirectness) and grammatical interpretation. Finally, we will relate this research to issues of second language acquisition.

=====

SUNDAY MORNING:

*All sessions at College of Basic Studies, 871 Commonwealth Avenue*

Interpretations of Literacy Events

\*\*\*\*\*

Luis Moll, University of Arizona

**Vygotsky and Education: Developing Social Contexts for Learning**

Central to this study is the Vygotskian/ethnographic emphasis on understanding literacy in relation to specific socio-cultural circumstances. The study consists of:

- 1) an ethnographic analysis of the transmission of knowledge and skills among households in a Latino community of Tucson;
- 2) the creation of an after-school site in order to experiment with literacy instruction;
- 3) classroom observations to examine existing methods of instruction and explore how to change instruction integrating what is learned at the after-school site.

We build on the idea that to develop the most advanced pedagogy for lab and classroom, we must fully understand the way that the household expresses its own pedagogy and transmits information that enhances the survival of its dependents. Analyzing these events, their context and significance, and transforming this information through experimentation to make it relevant and important for school instruction are at the heart of the project.

\*\*\*\*\*

Emilie Vanessa Siddle, University of Pennsylvania

**Minority Student Perspectives on the Use of Intervention Strategies in Writing Classrooms**

Drawing on a larger study which details the number, nature, and quality of changes Black and Latino students make in a single narrative essay after four interventions are imposed (i.e. two mini-lessons, one peer conference, and one set of teacher comments), this paper uses interview data to provide the rationale students give for the changes that they make after these interventions. Results indicate that students respond most to the first mini-lesson and the teacher comments, because 1) they value the direct assistance of the

teacher, and 2) they perceive these interventions as providing them with new information. In contrast, the peer conference and the second mini-lesson are not highly regarded because the students do not see themselves as receiving substantive ideas. Results suggest the need for systematic preparation of students for conferencing, the possibility of diminishing returns on the use of the mini-lesson, and the value of direct instruction in process classrooms.

\* \* \* \* \*

Linda Williamson Nelson, Stockton State College

### **Code-Shifting in the Oral Life Narrative of African-American Women: Challenges to Linguistic Hegemony**

This paper, which examines patterns of shifting from standard English to Black vernacular in oral life narratives of north eastern African-American women, argues that such shifts have both referential and semantic value.

In the former case, they mark the utterance with profundity and authority; in the latter case, the speakers indicate that their intended meaning requires the ethnically-based vernacular for accurate communication.

This paper also demonstrates that such strategic shifts, within the closed linguistic network of the life-narrative interview, represent the narrators' expressions of solidarity with the elicitor. Such solidarity is only offered after the narrators are made aware of the black cultural literacy of the elicitor herself. In spite of the narrators' acknowledgement of the high prestige of the majority dialect, the act of shifting effectively challenges the presumed hegemony of the public code.

\* \* \* \* \*

F. Niyi Akinnaso, State University of New York at Albany

### **Becoming Literate in a Nonliterate Society: Individual and Community Perspectives on Literacy in an African Village**

This paper reports a preliminary study of the local dynamics of the transition to literacy, at both individual and community levels, in Ajegunle village in southwestern Nigeria. While focussing on (1)- (4) below, this paper will also examine the processes which led to the restructuring of pre-existing forms of social, religious, economic, and political organization in the village and will assess the role of literacy in structuring the emergent

social order, paying attention to those aspects of knowledge for which literacy became a crucial mode of reproduction and those that were most resistant to literacy.

- 1) the factors which promoted the introduction and adoption of literacy in the village;
- 2) the strategies used by one individual who successfully acquired literacy;
- 3) the effects of literacy on the newly literate individuals and their nonliterate counterparts;
- 4) the conceptions and uses of literacy by both the literate and nonliterate members of the society.

The paper thus provides data and findings, from the perspective of a non-Western, "native" anthropologist, that will afford useful comparisons with other cases and thus will contribute to the formulation of a better theoretical framework for the study of literacy as a kind of cultural change.

=====

## Language Development: Syntax and the Lexicon (Part I)

\*\*\*\*\*

**Michael Ullman, Steven Pinker, Michelle Hollander, MIT; Alan Prince, Brandeis University; & T. John Rosen, MIT.**

### **Growth of Regular and Irregular Vocabulary and the Onset of Overregularization**

Why do children first say *came*, then both *comed* and *came*? The traditional answer is that children memorize stem/past pairs before abstracting a rule. Rumelhart and McClelland (1986) propose an alternative: high-frequency verbs are mostly irregular; if children acquire verbs in order of decreasing frequency, regular verbs will start to predominate. If over-regularization depends on relative experience with regular versus idiosyncratic patterns, over-regularization will be delayed until enough regulars are acquired. Pinker and Prince (1988) presented evidence that regular verbs are actually about 50% of vocabulary at all stages. However, their conclusions are limited because of small samples.

Using much larger samples, we first confirmed that there are two developmental phases. However, the pattern is only roughly "U"-shaped: correct irregulars greatly outnumber over-regularizations at all stages, and over-regularization rates remain undiminished even at 5. Irregular verb types and tokens were tallied and vocabulary curves

undiminished even at 5. Irregular verb types and tokens were tallied and vocabulary curves were plotted; a "capture-recapture" statistical technique was also used, to minimize sampling errors. We found that the conservative phase cannot be attributed to a dearth of regular verbs, as over 100 regulars are in use. Though the proportion of regulars does increase, there is no spurt in vocabulary or in the regular/irregular ratio preceding over-regularization. There is also no correlation between children's propensity to over-regularize and the regular/irregular ratio or its rate of change. Implications for associative and rule-based models are discussed.

\* \* \* \* \*

**John J. Kim, Steven Pinker, MIT; Alan Prince, Brandeis University; & Sandeep Prasada, MIT**

### **Why No Mere Mortal Has Flown Out to Center Field**

Do children acquire rules or associations? Consider networks that derive regular and irregular past tense forms by learning associations between stem phonological features and past tense phonological features. They clearly cannot handle homophones with different past forms (*ring/ring* versus *wring/wrung*). Linguists claim such pairs are inevitable when a verb is derived from another category (*She braked!\***broke the car; Boggs flied!\***flew out to centerfield*). Irregularity is a property of verb roots, not verbs; nouns cannot have an "irregular past tense," so verbs with noun roots are always regular.

Subjects, including a non-college-educated sample, were asked to rate regular and irregular past tenses of irregular stems, which were derived either from nouns (*to out-fling*="to have more flings than") or from verbs (*to out-fling*="to fling clothes around more than"). Overwhelmingly, subjects preferred the regular for verbs with noun roots, the irregular for verbs with verb roots. A second study showed that apparent counterexamples are due to speakers perceiving some denominal verbs as being derivable from another verb. Thus formal grammatical structures, such as syntactic and morphological category, determine the choice of regular versus irregular forms, and any acquisition model must represent such structures.

\*\*\*\*\*

**Richard T. Beckwith**, Princeton University; **Erin Tinker**, New York University; & **Lois Bloom**, Columbia University

### **The Acquisition of Non-Basic Sentences**

This paper deals with two criteria for defining the category of basic sentence: the appropriate prominence relations in the thematic hierarchy and the roles that occur in the hierarchy. Two distinct hierarchies have been proposed and these are distinguished by their predictions of theme prominence. The first question that we addressed is how to determine the relative appropriateness of the two hierarchies. Using child language and input data, we argue for a conception of basic sentence in which the thematic role prominence in the adult model and in the child model are different.

The second question was whether the role "experiencer" was available to children. Using recent work--specifically with respect to children--on theories of mind and our own experimental data, we argue that children do not have access to the same roles that determine the adult hierarchy. We conclude that acquisition data are necessary for defining basic sentences.

\*\*\*\*\*

**David Lebeaux**, University of Maryland

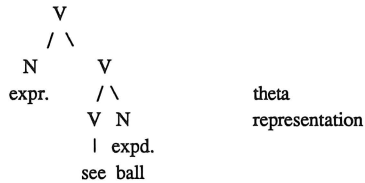
### **A Formal Syntax of Telegraphic Speech**

In this paper, I introduce no new data but attempt instead to give a formal syntactic characterization of telegraphic speech, within the general framework of Government & Binding (GB) Theory (Chomsky 1981), revising that theory as necessary. This involves answering two questions:

- 1) What is the formal significance of the lack of inflection, determiners and other closed class (CC) elements?
- 2) How does the child move from a grammar in which such elements are lacking to one in which they are not?

The latter problem is a pungent one, given that the child's initial grammar generates utterances (e.g. "see ball"), that is, cardinal nouns without determiners, which the adult grammar does not. How is the apparent overgeneration curbed or escaped from?

The solution to the second problem solves the first. The child's original grammar is a **subgrammar** of the whole. It contains a small thematic subtree of open class elements:



These CC elements are marked for theta roles but crucially not for abstract Case. This is projected into a CC frame, which is a pure isolate of Case features (Project- $\alpha$  (Lebeaux 1988)).

The theta representation that the child initially adopts is thus a sub-representation of the final representation, and since this (telegraphic) representation is retained in the final grammar, there is no need for negative evidence. Finally, there is a layering of vocabulary (theta  $\rightarrow$  theta + Case), both over the developmental sequence and in the actual adult syntactic derivation.

=====

## Age Effects & The Role of UG in Second Language Acquisition (Part I)

\*\*\*\*\*

James Emil Flege, University of Alabama

### The Effect of Age of Learning on the Production of L2 Vowels and Consonants

Previous research has shown that native speakers of languages in which /p,t,k/ are voiceless unaspirated stops typically produce English /p,t,k/ with VOT values that are longer than the L1 norm but **shorter** than the English phonetic norms. Similar findings have been reported for adult subjects who began learning English as adults or children. The apparent lack of an effect of age of learning may have been due to accented L2 input, however.

We found that native Spanish-speaking adults who began learning English by the age of 5-6 years in an English-speaking environment (Texas) did not differ from Spanish monolinguals for Spanish /t/ or from English monolinguals for English /t/, whereas those

who began learning English as adults showed the expected "compromise" VOT values (n=10/group). Preliminary results of an acoustic study comparing English /i, I, e, æ/ production by early and late L2 learners suggest that a similar age of learning effect may exist for vowels as well. As will be discussed, the results support the existence of a "critical" period for human speech learning, but for largely unexpected reasons.

\* \* \* \* \*

**Elissa L. Newport**, University of Rochester & **Jacqueline S. Johnson**, University of Virginia

### **Critical Period Effects in Second Language Learning: Maturational Changes in the Acquisition of Syntax and Morphology**

We will present a series of studies demonstrating that there are changes over maturational age in the success of second language acquisition, and we will discuss what the nature of this maturational change may be.

First, we will review our work showing effects of age of exposure on the acquisition of morphology in a first language and on the acquisition of syntax and morphology in a second language. In the second language work, we have shown such effects for both language-specific and language-universal structures. We will also present new work showing these effects for subject groups from three different L1 backgrounds (Chinese, Korean and Spanish), allowing us to separate effects of L1 typology from maturational effects.

Second, we will present two studies contrasting the types of competence which result from early vs. late learning of a second language.

Finally, we will consider possible maturational mechanisms which may underline critical period effects in language acquisition and in other developmental domains.

\* \* \* \* \*

**Robert Bley-Vroman**, University of Hawaii

### **Universal Grammar in Adult Foreign Language Learning: Evaluating the Evidence**

Within the Principles and Parameters framework of Universal Grammar (UG), one possible explanation for critical period phenomena is that while UG guides child language learning, it is not available in adult language learning except as it is reflected in relatively

Difference Hypothesis (FDH).

Recently, various sorts of evidence have been adduced to suggest that UG may be "partially available" to adult learners. In fact, the FDH, coupled with assumptions about the functional (processing) utility of universal constraints, furnishes the best explanation for partial availability. I consider also the general problem of empirically distinguishing alternative explanations for partial availability. It will be concluded that alternatives can be empirically distinguished in principle, but that practical tests will require a methodology more sophisticated and more psycholinguistic in orientation than the current methods of collecting and describing corpora and of obtaining grammaticality judgments.

\*\*\*\*\*

Bonnie D. Schwartz, Boston University

## L2 Knowledge: What Is the Null Hypothesis?

What is the nature of the knowledge underlying L2 performance? For L1, Chomsky (1986) divides the problem into two questions:

- 1) a. What constitutes this knowledge?
- b. How is such knowledge acquired?

For L2, the question is: are these questions to be answered differently than for L1? I argue that the null hypothesis is:

- 2) a. L2 knowledge & acquisition are guided by the same cognitive mechanisms as in L1;
- b. this hypothesis should be abandoned only in the face of overwhelming evidence.

The primary fact leading researchers to doubt (2) is the "lack of success" in L2 attainment. Whereas the L1 system is by definition perfectly attained, such attainment is the exception rather than the rule in L2. The following is argued:

- i) The lack-of-success argument is simply a question of definition; L2 success is defined in normative-teleological terms, while L1 is not. If language change is driven by restructuring of adult grammars by abductive change (Andersen 1973), L1A is also "unsuccessful" in these terms.
- ii) Distinguishing knowledge from acquisition, as in (1), it clearly does not follow that lack of attainment of the same type implies lack of knowledge of the same type.

Thus "imperfect" L2 knowledge may nevertheless derive from a UG-based cognitive system.

- iii) The simplest assumption is that L2 performance is UG-based; the contrary involves the uneconomical postulation of mechanisms replicating at least part of UG (cf. Occam's razor).
- iv) Genuinely unsuccessful L1A is pathological and very rare; successful L2A (in the normative sense) is relatively common. Unless (i-iii) hold, this situation is unexplained.

=====

**SUNDAY LUNCHEON: PLENARY ADDRESS**

Top of the Charles Lounge, 5th Floor, George Sherman Union,  
775 Commonwealth Avenue

**James Paul Gee, University of Southern California**

**Stanzas: The Intersection of Psycho and Socio Linguistics**

=====

**SUNDAY AFTERNOON:**

*All sessions at College of Basic Studies, 871 Commonwealth Avenue*

Sociocultural Perspectives on Literacy

\*\*\*\*\*

**James V. Wertsch, Clark University**

**Literacy as Mediated Action**

The approach I shall outline focuses on literacy as a type of action. Specifically, in accordance with the sociocultural approach outlined by figures such as the Soviet psychologist and semiotician L.S. Vygotsky, the focus is on action that is mediated by tools and signs. In this view, an account of human action cannot be reduced to an analysis

of the human individual(s) in isolation or to the tools and signs involved. Instead, the individual(s)-acting-with-mediational-means functions as an indissoluble agent.

In addition to being grounded in the ideas of Vygotsky, the notion of mediated action outlined here draws on another Soviet scholar, M.M. Bakhtin. Specifically, it focuses on some of his ideas about how sociocultural context is automatically invoked in the production of utterances (whether spoken or written). These ideas suggest several new directions for the study of literacy and literacy development to pursue.

\* \* \* \* \*

**Peter Tulviste,**

**Heterogeneity as a Problem of Verbalization** (Abstract unavailable).

\* \* \* \* \*

**Shoshana Blum-Kulka,** Hebrew University

**Conversational Structure of Children's Oral Narratives**

Story-telling in conversation is a cognitively and socially demanding task for both speakers and listeners. This study explores the ways in which preschool and school-aged children become pragmatically socialized as conversational narrators in culturally and socially distinct ways during dinner-table conversations. Children's and adults' self-initiated and other-initiated story-telling events in sixteen Israeli and American middle-class families and in five American working class families are examined in relation to three realms: the realm of events, or *'fabula'*; the realm of discourse structuring, or *'sjrzer'*; and the realm of interpersonal relations (ways of negotiating rapport and of building memories through narration). Adults are shown to provide culture and social-class-specific models for children's story-telling, both in their role as tellers (with children as overhearers) and in their role as active listeners (with children as tellers).

\* \* \* \* \*

**Catherine E. Snow & Patton Tabors, Harvard University**

### **Parental Versus Child Responsibility for the Structure of Oral Narratives**

Children can tell comprehensible and complete narratives because adults, typically parents, collaborate with them to highlight the crucial information and to fill in omitted but necessary details. Techniques for collaborating with children to ensure they tell good narratives vary, from co-narration, in which the adult helps tell the story, to audience simulation, in which the adult requests information from the stance of someone who has no independent access to knowledge about the event being narrated. It seems likely that use of these techniques varies as a function of culture and of social class, and it seems very possible that utilization of the different techniques contributes in different ways to the development of the children's oral language skills. We have analyzed narratives told during dinner-table conversations by middle-class and working-class children in American families in order to contrast the collaborative techniques of their parents. Data from Hebrew-English bilingual middle-class families residing in Israel are also being analyzed to explore the cultural aspects of narrating style.

=====

### **Language Development: Syntax and the Lexicon (Part II)**

\* \* \* \* \*

**Paul Bloom, MIT**

### **Semantics and the Acquisition of the Count-Mass Distinction**

The count-mass distinction is often viewed as non-semantic, because there seems to be no semantic motivation for why some words are count nouns and others are mass nouns. For instance, the fact that "an animal" is acceptable and "a furniture" is unacceptable looks arbitrary. From a learnability perspective, this suggests that children learn the count-mass status of new nouns by memorizing the structures adults use, not by attending to what the nouns mean.

In two studies, a semantic theory of the count-mass distinction is defended. The first study found that when children are taught a word to describe a set of objects, they tend to construe it as a count noun, regardless of the syntactic context in which the new word is

presented. A second study found that adults represent subtle conceptual differences between count nouns and mass nouns, even when they all describe groups of objects (e.g., *animal* vs. *furniture*). These findings suggest that the semantic definitions of some linguistic categories play a role in language acquisition.

\* \* \* \* \*

Anne Lederer, Henry Gleitman & Lila R. Gleitman, University of Pennsylvania

### **Syntactic Bootstrapping: Are the Data for a Deductive, Principle-Driven Verb Learning Procedure Available to Children?**

To the extent that the structures in which verbs appear are projections from their semantics, children could exploit the syntax/semantic correlations to learn the verb lexicon (Bowerman 1982; Pinker 1984; Landau & Gleitman 1985). One procedure for exploiting these correlations, dubbed "Syntactic Bootstrapping," suggests that children might deduce aspects of a novel verb's meaning by inspecting the range of subcategorization frames (SCats) in which that verb appears. But is the range of SCat frames provided to children broad enough to allow this?

To find out, we analyzed the speech of mothers to their children (N=35) to determine whether the range of SCat frames in which verbs appeared could support such a learning procedure. We found that 1) each verb appeared in a unique combination of SCat frames, and 2) the verbs that were independently judged to be semantically related had the greatest degree of frame overlap. These results indicate that one of the preconditions for a principled, deductive verb learning procedure (Syntactic Bootstrapping) has been met.

\* \* \* \* \*

Celia Jakubowicz, CNRS

### **Maturation or Invariance of Universal Grammar Principles in Language Acquisition**

Recently it has been argued that developmental changes in the child's linguistic behavior are due to a maturation program according to which the principles of Universal Grammar emerge successively and become operative in a specific temporal order (cf. Felix 1984; 1988). More particularly, it has been claimed that A-chain formation undergoes maturation (cf. Borer & Wexler 1987; 1988). The finding in a variety of experiments that young children show successful comprehension (and/or production) of passive sentences already provided arguments against such a claim without absolutely excluding it: the

proponents of a maturation account can advocate that A-chain formation may have matured before the age range considered in these studies (cf. Crain, Thornton & Murasagi 1987; Demuth 1989; Jakobowicz 1989; Pinker, Lebeaux & Frost 1987). However, if the capacity to combine a moved NP and its trace in an argument chain were biologically triggered at an early age, we would expect this capacity to show up across a variety of different constructions involving A-chain formation.

Data from recent research concerning the acquisition by native French-speaking children of 1) full passives of non-affectedness verbs; 2) raising-to-subject constructions; and 3) sentences with the matrix verb "promise" disconfirm this prediction. Rather, the data provide further evidence in support of the hypothesis that the principles of UG constrain the child's linguistic behavior from the start but must await the acquisition of certain lexical (and morphological) elements to become operative.

\* \* \* \* \*

**Letitia Naigles**, Yale University; **Roberta Golinkoff**, University of Delaware; & **Kathy Hirsh-Pasek**, Temple University

### **Comprehension of the Passive by Two-Year Olds**

The acquisition of the passive construction in English has been a topic of consistent and great interest to developmental psycholinguists, because it requires much language-specific linguistic sophistication for mastery. Prior research has been able to show control of passive sentences only in children three years of age and older; however, some of the difficulty could be attributed to the methods that were used.

This study uses Golinkoff and Hirsh-Pasek's preferential looking paradigm to investigate the comprehension of passive sentences in young two-year olds. 24-29 month old children sat midway between two video screens on which they saw simultaneously the events of Big Bird tickling Cookie Monster and of Cookie Monster tickling Big Bird. The single audio was presented in the passive and matched only one of the screens (e.g., "Look! Big Bird is being tickled by Cookie Monster!"). The results, as measured by the children's visual fixation and latency, indicate that they understood the passive construction for action verbs.

=====

## Age Effects & The Role of UG in Second Language Acquisition (Part II)

\*\*\*\*\*

Aafke Hulk, Free University Amsterdam

### Parameter Setting and the Acquisition of Word Order in L2 French

In this paper the theoretical implications of an experimental study on the acquisition of word order properties in L2 French by Dutch native speakers are discussed.

Dutch is an SOV language with V2; French is an SVO language without V2. In the L2A literature on German and Dutch word order by native speakers of Romance languages (e.g. duPlessis *et al.* 1987; Schwartz & Tomaselli 1988), explicit claims are made concerning the interaction of several parameters, such as headedness, adjunction to IP and topicalization to SPEC,CP. Our experiment represents the mirror-image of the above. We expected the same two areas, i.e. the position of the finite verb and fronting, to pose problems. In order to test our hypothesis (four acquisition stages, based on the interaction of three parameters), we submitted 40 French sentences to four groups of L2 acquirers.

Our results confirm the main point of the German L2A word order results: "fronting" is more difficult to acquire than the position of the (verbal) head, and parameter interaction plays a role. Our Dutch L1 speakers clearly started out with an SOVI order in their first stage of French L2A. This confirms the hypothesis about the position of INFL in Dutch and German and its role in L2A made in Schwartz & Tomaselli, *contra* duPlessis *et al.*

As for fronting, our results show that adjunction to IP, for which positive evidence is available in French, is acquired rather easily. On the same learnability grounds, we expected that topicalization to SPEC,CP (which is possible in Dutch but not French) would be difficult to abandon. Our results confirm this. Moreover, a phenomenon, also observed by duPlessis *et al.*, appears: For quite a long time the L2 acquirers allow fronting by adjunction to IP and topicalization to SPEC,CP. In this respect, their interlanguage is similar to Spanish, which also allows both types of fronting. This again confirms the hypothesis that interlanguages are natural languages and as such are subject to UG, which implies that UG **does** play a role in L2A.

\* \* \* \* \*

Lynn Eubank, University of North Texas

### **Sentence Matching, German and Universal Grammar**

This report presents preliminary results of a study designed to examine the role of Universal Grammar (UG) in second-language (L2) acquisition. Part of the paper deals with the methodology of the study, which utilizes a computer program based on work by Freedman and Forster (1985) that measures the speed at which subjects recognize the identity/non-identity of paired grammatical and ungrammatical sentences. The discussion in this part of the paper considers some of the criticisms of the methodology by Crain and Fodor (1987) as well as the statistical and learning-theoretical constraints on the use of this methodology. The rest of the paper evaluates some of the data from the native-speaking controls and the L2 learners. Important here are the possibilities of VP-extrapolation in German and the debated role of UG in the L2.

\* \* \* \* \*

Lydia White, McGill University

### **Resetting the Verb-Movement Parameter in SLA: The Effects of Positive and Negative Evidence in the Classroom**

Pollock's (1988) V-movement parameter requires verbs to raise to INFL in French but not in English. Certain adverbs are generated in pre-verbal position; the verb-raising requirement causes the verb to move to the left of the adverb, explaining the verb-adverb-object (VAO) order permitted in French and the impossibility of subject-adverb-verb (SAV). The impossibility of verb-raising in English explains the opposite orders, namely SAV but not VAO.

If L2 learners initially transfer L1 parameter-settings, French learners of English may assume that VAO is possible and SAV impossible in the L2. This raises the question of whether and how this parameter is reset. There will be positive evidence for SAV from sentences like *Mary often drinks coffee*, but negative evidence may be required to prevent sentences like *Mary drinks often coffee*.

In an experiment on 150 children (Grades 5 and 6) in intensive ESL programmes, two groups received no instruction on adverb placement, while three groups received form-focused instruction that included positive evidence (SAV is possible) and negative evidence (VAO is not possible). Subjects were tested on a variety of tasks. Prior to instruction, all groups accepted VAO order in English and rejected SAV. The uninstructed

groups continued to show this behaviour at subsequent testing, unlike the instructed groups who placed adverbs in English positions rather than French. This suggests that form-focussed positive and negative evidence in the classroom can be effective in L2 parameter setting.

\* \* \* \* \*

**Helmut Zobl**, Carleton University

### **Grammaticality Intuitions of Unilingual and Multilingual Nonprimary Language Learners**

Second language research regularly abstracts away from the number of antecedently known languages that learners bring to the acquisition task. This idealization is far from innocuous. Findings of sameness or of difference are of equal importance for our understanding of nonprimary language acquisition, in particular for the issue of how biological age and prior linguistic experience relate to the availability, to adults, of Universal Grammar and learning procedures such as the Subset Principle.

This paper reports findings from a research program whose principal focus lay on the investigation of grammaticality intuitions, in English, of adult unilingual and multilingual learners. Findings indicate that:

- 1) Multilingualism is an asset in attaining global proficiency, but this advantage does not translate into more accurate grammaticality intuitions; and
- 2) Multilinguals tend to be more accepting of marked linguistic constructions, suggesting that their greater linguistic knowledge made it more difficult for them to formulate a subset grammar for the structures investigated. The implications of these findings are discussed in the context of current hypotheses about the adult's language acquisition faculty.

## INDEX OF CONFERENCE SPEAKERS

NAME	SESSION	TIME
Dany Adone <i>(w/ M. Verrips)</i>	Bound Variables	Saturday, am
F. Niyi Akinnaso	Interpretations of Lit. Events	Sunday, am
John Archibald	Acquisition of Phonology	Friday, am
Sabrina Aurilio <i>(w/ A.T. Fiallo)</i>	pro & Pronouns	Saturday, pm
Richard Beckwith <i>(w/ L. Bloom &amp; E. Tinker)</i>	Syntax & The Lexicon	Sunday, am
Dom Berducci <i>(w/ L. Holliday, N. Lewis, J. Newman &amp; T. Pica)</i>	Sociocultural approaches to L2	Saturday, pm
Ruth Berman	Linguistic Awareness of Child	Friday, am
Ioanna Berthoud- Papandropoulou	Linguistic Awareness of Child	Friday, am
David Birdsong	Theories of Evidence	Friday, pm
Robert Bley-Vroman	Age Effects & The Role of UG	Sunday, am
Lois Bloom <i>(w/ R. Beckwith &amp; E. Tinker)</i>	Syntax & The Lexicon	Sunday, am
Paul Bloom	Syntax & The Lexicon	Sunday, pm
Shoshana Blum-Kulka	Sociocultural Persp. on Literacy	Sunday, pm
James Collins	Literacy & Ideology	Saturday, pm
Martha Crago	Sociocultural Approaches to L2	Saturday, pm
Susan Curtiss	Neurolinguistics	Saturday, am
Katherine Demuth	Acquisition of Phonology	Friday, am
Jill DeVilliers <i>(w/ T. Roeper)</i>	Bound Variables	Saturday, am
John Dore	Literacy in the Workplace	Saturday, am
Bruce Dorval	Literacy in the Workplace	Saturday, am
Ray Dougherty <i>(w/ E. Tinker)</i>	Linguistic Awareness of Child	Friday, am
Elan Dresher	Acquisition of Phonology	Friday, am
Lynn Eubank	Age Effects & The Role of UG	Sunday, pm

NAME	SESSION	TIME
Ana Teresa Fiallo (w/ <i>S. Aurilio</i> )	pro & Pronouns	Saturday, pm
James Flege	Age Effects & The Role of UG	Sunday, pm
Susan Gass (w/ <i>E. Varonis</i> )	Sociocultural Approaches to L2	Saturday, pm
James Paul Gee	Literacy & Ideology	Saturday, pm
Susan Gelman (w/ <i>T. Svaib</i> )	Linguistic Awareness of Child	Friday, am
Henry Gleitman (w/ <i>A. Lederer &amp; L. Gleitman</i> )	Syntax & The Lexicon	Sunday, pm
Lila Gleitman (w/ <i>A. Lederer &amp; H. Gleitman</i> )	Syntax & The Lexicon	Sunday, pm
Roberta Golinkoff (w/ <i>K. Hirsh-Pasek &amp; L. Naigles</i> )	Syntax & The Lexicon	Sunday, pm
Helen Goodluck	Bound Variables	Saturday, am
Jane Grimshaw	Theories of Evidence	Friday, pm
Chantale Hetu	Literacy in the Workplace	Saturday, am
Kathy Hirsh-Pasek (w/ <i>R. Golinkoff &amp; L. Naigles</i> )	Syntax & The Lexicon	Sunday, pm
Michelle Hollander (w/ <i>S. Pinker, A. Prince, T.J. Rosen &amp; M. Ullman</i> )	Syntax & The Lexicon	Sunday, am
Lloyd Holliday (w/ <i>D. Berducci, N. Lewis, J. Newman &amp; T. Pica</i> )	Sociocultural Approaches to L2	Saturday, pm
Aafke Hulk	Age Effects & The Role of UG	Sunday, pm
Nina Hyams (w/ <i>K. Wexler</i> )	pro & Pronouns	Saturday, pm
Celia Jakubowicz	Syntax & The Lexicon	Sunday, pm
Hilary Janks	Literacy & Ideology	Saturday, pm
Jacqueline Johnson (w/ <i>E. Newport</i> )	Age Effects & The Role of UG	Sunday, am

NAME	SESSION	TIME
John Kim (w/ <i>S. Pinker</i> , <i>S. Prasada &amp; A. Prince</i> )	Syntax & The Lexicon	Sunday, am
Glenn Kleiman (w. <i>M. Kliman</i> )	The Discourse of Mathematics	Friday, pm
Marlene Kliman (w/ <i>G. Kleiman</i> )	The Discourse of Mathematics	Friday, pm
David Lebeaux	Syntax & The Lexicon	Sunday, am
Marie LaBelle	Bound Variables	Saturday, am
Anne Lederer (w/ <i>H. &amp; L. Gleitman</i> )	Syntax & The Lexicon	Sunday, pm
Nora Lewis (w/ <i>D. Berducci</i> , <i>L. Holliday, J. Newman</i> & <i>T. Pica</i> )	Sociocultural Approaches to L2	Saturday, pm
Ceil Lucas (w/ <i>C. Valli</i> )	Sociocultural Approaches to L2	Saturday, pm
Paula Marentette (w/ <i>L. Petitto</i> )	Acquisition of Phonology	Friday, am
Cecile McKee	pro & Pronoun	Saturday, pm
William E. Merriman (w/ <i>J. Schuster</i> )	Linguistic Awareness of Child	Friday, am
Sarah Michaels	The Discourse of Mathematics	Friday, pm
Nina Mikkelsen	Literacy in the Humanities	Friday, am
Luis Moll	Interpretations of Literacy Events	Sunday, am
Letitia Naigles (w/ <i>K. Hirsh-Pasek &amp;</i> <i>R. Golinkoff</i> )	Syntax & The Lexicon	Sunday, pm
Linda Nelson	Interpretations of Literacy Events	Sunday, pm
Jeanne Newman (w/ <i>D. Berducci</i> , <i>L. Holliday</i> , <i>N. Lewis &amp; T. Pica</i> )	Sociocultural Approaches to L2	Saturday, pm
Elissa Newport (w/ <i>J. Johnson</i> )	Age Effects & The Role of UG	Sunday, am
(w/ <i>J. Singleton</i> )	American Sign Language	Friday, pm
Cathy O'Connor	The Discourse of Mathematics	Friday, pm

NAME	SESSION	TIME
Ann Peters	Acquisition of Phonology	Friday, am
Laura Petitto (w/ <i>P. Marentette</i> )	Acquisition of Phonology	Friday, am
Teresa Pica (w/ <i>D. Berducci,</i> <i>L. Holliday, N. Lewis</i> <i>&amp; J. Newman</i> )	Sociocultural Approaches to L2	Saturday, pm
Steven Pinker (w/ <i>M. Hollander,</i> <i>A. Prince, T.J. Rosen &amp;</i> <i>M. Ullman</i> )	Syntax & The Lexicon	Sunday, am
(w/ <i>J. Kim, S. Prasada &amp;</i> <i>A. Prince</i> )	Syntax & The Lexicon	Sunday, am
Sandeep Prasada (w/ <i>J. Kim, S. Pinker &amp;</i> <i>A. Prince</i> )	Syntax & The Lexicon	Sunday, am
Alan Prince (w/ <i>M. Hollander,</i> <i>S. Pinker, T.J. Rosen &amp;</i> <i>M. Ullman</i> )	Syntax & The Lexicon	Sunday, am
(w/ <i>J. Kim, S. Pinker &amp;</i> <i>S. Prasada</i> )	Syntax & The Lexicon	Sunday, am
Stephen Reder	Literacy in the Workplace	Saturday, am
Thomas Roeper (w/ <i>J. DeVilliers</i> )	Bound Variables	Saturday, am
T. John Rosen (w/ <i>M. Hollander,</i> <i>S. Pinker, A. Prince &amp;</i> <i>M. Ullman</i> )	Syntax & The Lexicon	Sunday, am
Joneen Schuster (w/ <i>W.E. Merriman</i> )	Linguistic Awareness of Child	Friday, am
Bonnie D. Schwartz	Age Effects & The Role of UG	Sunday, am
Judah Schwartz	The Discourse of Mathematics	Friday, pm
Rosalie Schwartz	Literacy in the Workplace	Saturday, am
Sylvia Scribner	Literacy in the Workplace	Saturday, am
Emilie Vanessa Siddle	Interpretations of Literacy Events	Sunday, am
Michael Silverstein	Literacy & Ideology	Saturday, pm

NAME	SESSION	TIME
Jenny Singleton <i>(w/ E. Newport)</i>	American Sign Language	Friday, pm
Catherine Snow <i>(w/ P. Tabors)</i>	Sociocultural Persp. on Literacy	Sunday, pm
Karin Stromswold	Theories of Evidence	Friday, pm
Francis J. Sullivan	Literacy in the Humanities	Friday, am
Sam Supalla	American Sign Language	Friday, pm
Ted Supalla	American Sign Language	Friday, pm
Trisha Svaib <i>(w/ S. Gelman)</i>	Linguistic Awareness of Child	Friday, am
Patton Tabors <i>(w/ C. Snow)</i>	Sociocultural Persp. on Literacy	Sunday, pm
Erin Tinker <i>(w/ R. Beckwith &amp; L. Bloom)</i> <i>(w/ R. Dougherty)</i>	Syntax & The Lexicon	Sunday, am
Peter Tulviste	Linguistic Awareness of Child	Friday, am
Michael Ullman <i>(w/ M. Hollander, S. Pinker, A. Prince &amp; T.J. Rosen)</i>	Sociocultural Persp. on Literacy	Sunday, pm
	Syntax & The Lexicon	Sunday, am
Jyotsna Vaid	Neurolinguistics	Saturday, am
Clayton Valli <i>(w/ C. Lucas)</i>	Sociocultural Approaches to L2	Saturday, pm
Ana Varela	pro & Pronouns	Saturday, pm
Evangeline Varonis <i>(w/ S. Gass)</i>	Sociocultural Approaches to L2	Saturday, pm
Maaïke Verrips <i>(w/ D. Adone)</i>	Bound Variables	Saturday, am
James Wertsch	Sociocultural Persp. on Literacy	Sunday, pm
Kenneth Wexler <i>(w/ N. Hyams)</i>	pro & Pronouns	Saturday, pm
Lydia White	Age Effects & The Role of UG	Sunday, pm
Dennie Wolfe	Literacy in the Humanities	Friday, am
Helmuth Zobl	Age Effects & The Role of UG	Sunday, pm

Dany Adone  
Max Planck Institute for Psycholx  
Wundtlaan 1 6525 XD  
Nijmegen, Netherlands

F. Niyi Akinnaso  
Writing & Literacy, SUNY  
Albany, NY 12222

John Archibald  
291 Windermere Rd. #162  
London, Ontario, Canada

Sabrina Aurilio  
Landmark School  
Putney, VT 05346

Richard Beckwith  
Princeton U., Cognitive Science Lab.  
221 Nassau St.  
Princeton, NJ 08544

Dom Berducci  
c/o Grad. School of Ed., U. Penn.  
3700 Walnut St.  
Philadelphia, PA 19104-6216

Ruth Berman  
Tel Aviv U., Dept. of Linguistics  
Ramat Aviv, Israel 69978

Ioanna Berthoud-Papandropoulou  
U. de Genève, Faculté de Psych.  
24, Rue Général-Dufour  
1211 Geneva 4, Switzerland

David Birdsong  
University of Florida  
Dept. of Linguistics  
Gainesville, FL 32611

Robert Bley-Vroman  
Dept. of ESL, U. of Hawaii  
1890 East-West Rd.  
Honolulu, HI 96822

Paul Bloom  
E10-105 MIT  
Cambridge, MA 02139

Lois Bloom  
Teachers College, Box 5, Columbia U.  
525 W. 120th St.  
New York, NY 10001

Shoshana Blum-Kulka  
Communications Inst.  
Hebrew University  
Jerusalem, Israel 91905

James Collins  
Temple University  
Dept. of Anthropology  
Philadelphia, PA 19122

Martha Crago  
1266 Pine Ave. W.  
Montreal, Que, Canada H3G 1A8

Susan Curtiss  
Dept. of Linguistics, UCLA  
405 Hilgard Avenue  
Los Angeles, CA 90024

Katherine Demuth  
Linguistics, Brown University  
Providence, RI 02908

Jill DeVilliers  
Dept. Psychology, Smith College  
Northampton, MA 01060

John Dore  
Gibbs Institute  
9 East 96th Street  
New York, NY 10128

Bruce Dorval  
Brooklyn Center  
Long Island University  
Brooklyn, New York 11201

Ray Dougherty  
New York University  
100 Bleecker St. Room 27a  
New York, NY 10003

Elan Dresher  
Dept. of Linguistics  
University of Toronto  
Toronto, Ontario, Canada M5S 1A1

Lynn Eubank  
1420 Panhandle  
Denton, TX 76201

Ana Teresa Fiallo  
Dept. of Spanish & Portuguese  
University of Mass. at Amherst  
Amherst, MA 01003

James Flege  
Dept. of Biocommunications  
University of Alabama  
Birmingham, AL 35294

Susan Gass  
Dept. of English  
Michigan State University  
East Lansing, MI 48824

James Paul Gee  
University of Southern California  
Dept. of Linguistics  
Los Angeles, CA 90089-1295

Susan Gelman  
U. of Michigan, Dept. of Psychology  
3433 Mason Hall  
Ann Arbor, Michigan 48109

Lila Gleitman  
3700 Walnut St.  
Philadelphia, PA 19174

Henry Gleitman  
3815 Walnut St.  
Philadelphia, PA 19104-6196

Roberta Golinkoff  
U. of Delaware, College of Education  
Newark, DE 19716

Helen Goodluck  
U. of Ottawa, Dept. of Linguistics  
78 Laurier E.  
Ottawa, Ontario, Canada K1N 6N5

Jane Grimshaw  
Brandeis University  
Department of Psychology  
Waltham, MA 02254

Chantale Héту  
Dept. of Comm., U. of Montreal  
P. O. Box 6128 Station A  
Montreal, Que, Canada H3C 3J57

Kathy Hirsh-Pasek  
Temple University  
Dept. of Psychology  
Philadelphia, PA 19122

Michelle Hollander  
Dept. of Brain & Cognitive Science  
E10-104A MIT  
Cambridge, MA 02139

Lloyd Holliday  
c/o Grad. Sch. of Ed., U.Penn.,  
3700 Walnut St.  
Philadelphia, PA 19104-6216

Aafke Hulk  
Free University, French Department  
Van Boshuizenstraat 565  
Amsterdam, Holland

Nina Hyams  
Dept. of Linguistics, UCLA  
405 Hilgard Ave.  
Los Angeles, CA 90024

Celia Jakubowicz  
Labo. de Psychologie Expérimentale  
28 Rue Serpente -CNRS URA 316  
75006 Paris, France

Hilary Janks  
P. O. Box 927  
Johannesburg, South Africa

Jacqueline Johnson  
c/o Newport, Dept. of Psychology  
University of Rochester  
Rochester, NY 14627

John Kim  
Dept. of Brain & Cognitive Science  
E10-104A MIT  
Cambridge, MA 02139

Glenn Kleiman  
Education Development Center  
55 Chapel Street  
Newton, MA 02160

Marlene Kliman  
Educational Development Center  
55 Chapel St.  
Newton, MA 02160

Marie LaBelle  
Dept. of Linguistics, UQAM  
Case Postale 8888, succ. A  
Montreal, Que, Canada H3C 3P8

David Lebeaux  
Dept. of Linguistics, U. of Maryland  
College Park, MD 20742

Anne Lederer  
U. of Pennsylvania, Dept. of Psych.  
3815 Walnut Street  
Philadelphia, PA 19104-6196

Nora Lewis  
c/o Grad. Sch. of Ed., U. Penn.,  
3700 Walnut St.  
Philadelphia, PA 19104

Ceil Lucas  
Dept. of Linguistics & Interpreting  
Gallaudet University  
Washington, DC 20002

Paula Marentette  
1205 ave Docteur Penfield  
Montreal, Que, H3A-1B1 Canada

Cecile McKee  
Cognitive Sci. Prog./Psychology  
University of Arizona  
Tucson, AZ 85721

William E. Merriman  
Kent State University  
Dept. of Psychology  
Kent, OH 44242

Sarah Michaels  
Educational Development Center  
55 Chapel Street  
Newton, MA 02160

Nina Mikkelsen  
503 S. 7th St.  
Indiana, PA 15701

Luis Moll  
U. of Arizona, College of Education  
Division of Language and Reading  
Tuscon, AZ 85718

Letitia Naigles  
Box 11A Yale Station  
New Haven, CT 06520-7447

Linda Nelson  
Stockton State College J-105  
Pomona, NJ

Jeanne Newman  
c/o GSE, U. Pennsylvania  
3700 Walnut Street  
Philadelphia, PA 19104-6216

Elissa Newport  
University of Rochester  
Meliors Hall  
Rochester, NY 10211

Cathy O'Connor  
SED, Boston University  
605 Commonwealth Avenue  
Boston, MA 02215

Ann Peters  
Dept. of Linguistics, U. of Hawaii  
1890 East-West Road  
Honolulu, HI 96822

Laura Ann Pettito  
McGill University  
1205 Dr. Penfield Avenue  
Montreal, H3A 1B1 Canada

Teresa Pica  
U. of Pennsylvania, Education  
3700 Walnut Street  
Philadelphia, PA 19104-6216

Steven Pinker  
Dept. of Brain & Cog. Science  
E10-018 MIT  
Cambridge, MA 02139

Sandeep Prasada  
MIT Dept. of Brain & Cognitive Sci.  
Room E10-104A  
Cambridge, MA 02139

Alan Prince  
Brandeis University  
Linguistics and Cognitive Science  
Waltham, MA 02254

Stephen Reder  
101 S. W. Main St., Suite 500  
Portland, OR 97204

Thomas Roeper  
U. Mass., Amherst  
Dept. of Linguistics  
Amherst, MA 01003

T. John Rosen  
Dept. of Brain & Cognitive Science  
E10-104A MIT  
Cambridge, MA 02139

Joneen Schuster  
Dept. of Psychology  
Kent State University  
Kent, OH 44242

Judah Schwartz  
Harvard University, Ed. Tech. Ctr.  
Gutman Hall /Appian Way  
Cambridge, MA 02138

Rosalie Schwartz  
CUNY Grad. Ctr., Cognitive Studies  
33 West 42nd Street  
New York, NY 10036

Ted Supalla  
Univ. Rochester, Lang. Lit. & Ling.  
Dewey Hall  
Rochester, NY 14627

Bonnie Schwartz  
Applied Linguistics, Boston U.  
718 Commonwealth Ave.  
Boston, MA 02215

Sam Supalla  
University of Illinois  
211 W. Nevada  
Urbana, IL 61801

Sylvia Scribner  
CUNY Grad. Ctr., Cognitive Studies  
33 West 42nd Street  
New York, NY 10036

Trisha Svaib  
U. of Michigan, Linguistics  
1076 Frieze Bldg.  
Ann Arbor, MI 48109

Emilie Vanessa Siddle  
University of Pennsylvania, GSE  
3700 Walnut St.  
Philadelphia, PA 19104

Patton Tabors  
HGSE, Harvard University  
Appian Way  
Cambridge, MA 02138

Michael Silverstein  
Dept. of Anthropology, U. of Chicago  
1126 E 59th Street  
Chicago, IL 60637

Erin Tinker  
New York University  
100 Bleecker St. Room 27a  
New York, NY 10003

Jenny Singleton  
603 E. Daniel St.  
Champaign, IL 61820

Michael Ullman  
Dept. of Brain and Cog. Science  
E10-104A MIT  
Cambridge, MA 02139

Catherine Snow  
Harvard University  
Graduate School of Education  
Cambridge, MA 02138

Jvotsna Vaid  
Texas A & M University  
Dept. of Psychology  
College Station, TX 77843

Karin Stromswold  
MIT  
E10-10B  
Cambridge, MA 02139

Clayton Valli  
Dept. of Linguistics & Interpreting  
Gallaudet University  
Washington, DC 20002

Francis J. Sullivan  
E.L.E.C., Temple University  
Philadelphia, PA 19122

Ana Varela  
Inst. Univ. Ortega Y Gasset, Madrid  
Diego de Leon 56, 6F, 28006  
Madrid, Spain

Evangeline Varonis  
Dept. of English  
Michigan State University  
East Lansing, MI 48824

Maaïke Verrips  
Max Planck Institute  
Wundtlaan 1 - 6525 XD  
Nijmegen, Netherlands

James Wertsch  
Dept. Psychology, Clark University  
950 M Street  
Worcester, MA 01610

Kenneth Wexler  
Brain and Cognitive Sciences  
E10-018 MIT  
Cambridge, MA 02139

Lydia White  
McGill U., Dept. of Linguistics  
1001 Sherbrook St. W  
Montreal/Que, Canada H3A 1G5

Dennie Wolfe  
Project Zero, Harvard University  
326 Longfellow Hall  
Cambridge, MA 02138

Helmut Zobl  
Dept. of Linguistics, Carleton U.  
Ottawa, Ontario, Canada K1S 5B6

## DIRECTORY OF EXHIBITORS

Ablex Publishing Co.  
355 Chestnut Street  
Norwood, NJ 07648

Cambridge University Press  
25 Beacon Street  
Boston, MA 02108

College Hill Press / Little, Brown & Co.  
34 Beacon Street  
Boston, MA 02108

Editions Rodopi B.V.  
Keizersgracht 302-304  
1016 EX Amsterdam  
The Netherlands

Educators Publishing Service  
75 Moulton Street  
Cambridge, MA 02138

Harper & Row Publishers  
10 East 53rd Street  
New York, NY 10022

Harvard Educational Review  
Gutman Library Suite 349  
6 Appian Way  
Cambridge, MA 02138

Harvard University Press  
79 Garden Street  
Cambridge, MA 02138

Hogrefe & Huber Publications  
12-14 Bruce Park Avenue  
Toronto, Ontario  
Canada M4P 2S3

Kluwer Press  
101 Philip Drive  
Norwell, MA 02061

Lawrence Erlbaum & Associates Inc.  
365 Broadway Ste. 102  
Hillside, NJ 07642

MIT Press  
55 Hayward Street  
Cambridge, MA 02142

Newbury House Publishers  
101 East 53rd Street  
New York, NY 10022

University of Illinois Press  
54 East Gregory Drive  
Champaign, IL 61820

Walter de Gruyter, Inc.  
200 Saw Mill River Road  
Hawthorne, NY 10532

Writing Instructor Journal  
817 West 34th Street / UVC  
University of Southern California  
Los Angeles, CA 90089

# Cambridge University Press

## **Vision and the Emergence of Meaning**

*Blind and Sighted Children's Early Language*  
**Anne Dunlea**

## **Talking Voices**

*Repetition, Dialogue, and Imagery in Conversational Discourse*  
**Deborah Tannen**

## **Bilingualism Across the Lifespan**

*Aspects of Acquisition, Maturity and Loss*  
**Edited by Kenneth Hyldenstam and Loraine K. Obler**

## **First Language Acquisition**

*Method, Description, and Explanation*  
**David Ingram**

## **Language, Memory, and Aging**

*Edited by Leah L. Light and Deborah M. Burke*

## **From First Words to Grammar**

*Individual Differences and Dissociable Mechanisms*  
**Elizabeth Bates, Inge Bretherton, and Lynn Snyder**

## **Advances in Applied Psycholinguistics**

*Edited by Sheldon Rosenberg*

*Volume I: Disorders of First Language Development*

*Volume II: Reading, Writing, and Language Learning*

Cambridge Monographs and Texts in Applied Psycholinguistics

## **The Cross-Linguistic Study of Sentence Processing**

*Edited by Brian MacWhinney and Elizabeth Bates*

*Now in paperback...*

## **Linguistics: The Cambridge Survey**

*Edited by Frederick J. Newmeyer*

*Volume I: Linguistic Theory: Foundations*

*Volume II: Linguistic Theory: Extensions and Implications*

*Volume III: Language: Psychological and Biological Aspects*

*Volume IV: Language: The Socio-Cultural Context*

## **Journals**

### **Journal of Child Language**

*Alan Cruttenden and Katharine Perera, Editors*

### **Child Language Teaching and Therapy**

*David Crystal, Editor*

### **Language Testing**

*A. Hughes and D. Porter, Editors*

### **Language Teaching**

*Valerie Kinsella, Editor*

### **English Today**

*Tom McArthur and David Crystal, Editors*

See these and other titles at the Cambridge display

**Cambridge University Press**

32 East 57th Street, NY, NY 10022





\*\*\*\*\*

**Michael K. Matthews, Boston V.A. Department of Neurology.**

### **Neuroanatomy of Language**

The brain is composed of interlinked substructures that make up interacting neurological systems. Linguistic functions require the organization of different anatomical substructures, each playing disproportionately pivotal roles in different functions. The left hemisphere usually organizes the comprehension and production of the literal content of language, while the right hemisphere encodes and decodes prosodic, emotional, and gestural aspects of language. Within the left hemisphere, the frontal lobe contains areas critical for fluency, the temporal lobe contains substrates critical for auditory comprehension, the angular gyrus in the parietal lobe is required for reading, the basal ganglia function prominently in articulation and respiratory control during speech, and the thalamus contributes extensively to word retrieval. Nonetheless, damage to these areas compromises several functions: one function can be weakened by damage in different areas. These areas are not "centers" for functions therefore, but critical way-stations in systems that form the substrate of language.

What was the result of the ...

... ..

... ..



