MEETING HANDBOOK

LINGUISTIC SOCIETY OF AMERICA

AMERICAN ASSOCIATION FOR APPLIED LINGUISTICS

AMERICAN DIALECT SOCIETY

NEW YORK, NEW YORK

27–30 DECEMBER 1986
INTRODUCTORY NOTE

The LSA Secretariat has prepared this Meeting Handbook to serve as the official program for the 61st Annual Meeting of the Linguistic Society of America, the 9th Annual Meeting of the American Association for Applied Linguistics, and a meeting of the American Dialect Society.

We gratefully acknowledge the assistance provided by the LSA Program Committee (Lyle Campbell, Chair; George Cardona; Sandra Chung; John McCarthy; Paula Menyuk; David Michaels; and Virginia Teller) and the AAAL Program Committee (Susan Gass, Chair; Josh Ard; Miriam Eisenstein; Jacqueline Schachter; and John Swales). We also are grateful to Allan Metcalf, Executive Secretary of the American Dialect Society, for his cooperation. We especially appreciate the help which has been given by the New York Local Arrangements Committee (Virginia Teller, Chair; Ellen Broselow; Judith Klavans; John Singler; and Shirley Steele).

We hope this Meeting Handbook is a useful guide for those attending, as well as a permanent record of the 1986 Annual Meeting in New York.

November 1986
CONTENTS

General Meeting Information vii
Highlights viii
Program viii
Abstracts of LSA Regular Papers 1
Abstracts of LSA Symposium 51
Abstracts of LSA Colloquia 57
Abstracts of AAAL Regular Papers 65
Abstracts of AAAL Symposium 73
Abstracts of ADS Regular Papers 79
GENERAL MEETING INFORMATION

- **Book Exhibit**
  
  There will be an exhibit of linguistic publications in the Beekman Parlor and the adjoining Sutton Parlor North Room. The exhibit is scheduled to be open during the following hours:

  - Sun, 23 December: 10:00 AM - 2:00 PM
  - Mon, 24 December: 10:00 AM - 2:00 PM
  - Tue, 25 December: 8:30 AM - 11:30 AM

  The display copies in the LSA Joint Book Exhibit will be sold beginning at 8:30 AM on 30 December, the proceeds to be donated to fellowships for the Linguistic Institute. (These display copies have been generously donated by the publishers exhibiting in the LSA Joint Book Exhibit.) Advance orders for display copies, at a discount of 5% greater than that given by the publisher, will be taken prior to 30 December if accompanied by payment. All books must be picked up on 30 December between 8:30 and 10:00 AM. Unclaimed copies will be resold and the advance payment donated to the Linguistic Institute fellowships.

- **Job Placement Center**
  
  A Job Placement Center will be set up in Gibson Suite B during the Annual Meeting. On 28 and 29 December the Center will be open from 8:30 AM to 6:00 PM. It will also be open from 9:00 AM until noon on 30 December. Lists of openings will be available, and the staff will arrange interviews between the applicants and the employers. Interviewers are asked to list openings and check in with the Center so that an interview schedule can be arranged. Applicants should be sure to bring an adequate supply of curricula vitae sufficient to submit one copy each to interviewers. The Center will have no duplication facilities available.

- **National Science Foundation**
  
  Paul Chapin, Program Director for Linguistics at the National Science Foundation, will meet with interested members in Gramercy Suite B at the following times:

  - 28 December: 10:00 AM - 11:00 AM
  - 2:30 PM - 3:30 PM
  - 29 December: 10:00 AM - 11:00 AM
  - 30 December: 10:00 AM - 11:00 AM

- **American Association for Applied Linguistics**
  
  The Ninth Annual Meeting of the American Association for Applied Linguistics will be held 27-29 December. The program for these sessions may be found on pp. viii-xii.

- **American Dialect Society**
  
  Part of the Annual Meeting of the American Dialect Society will be held on Sunday, 28 December, from 2:00-5:00 PM in the Morgan Suite. The program for this session may be found on p. xi.
HIGHLIGHTS

Saturday, 27 December

• LSA Executive Committee Meeting

The Officers and Executive Committee (Barbara Partee, President; Elizabeth Traugott, Vice President - Elect; Victoria Fromkin, Past President; D. Terence Langendoen, Secretary-Treasurer; William Bright, Editor; Robert Austerlitz; Joseph Grimes; Kenneth Hale; David Michaels; Elisabeth Selkirk; Sandra Thompson; C. Richard Tucker; Juan Uriagereka; and Arnold Zwicky) will meet beginning at 10:00 AM.

Sunday, 28 December

• President’s Coffee for Linguistics Students

Barbara H. Partee, 1986 LSA President, will host a coffee for linguistics students from 7:30-9:00 AM in Gramercy Suite B.

• Ad Hoc Committee on Careers for Linguists

The Ad Hoc Committee on Careers for Linguists will hold an open meeting in Madison Suite B, 5:00-6:30 PM. All members are invited to attend and are encouraged to participate in the discussion.

Monday, 29 December

• Committee on the Status of Women in Linguistics

An open meeting of the Committee on the Status of Women in Linguistics will be held in the Murray Hill Suite from 1:00-2:00 PM. All members are invited to attend and are encouraged to participate in the discussion.

• LSA Business Meeting

This year the Business Meeting has been scheduled in the Murray Hill Suite from 2:00-4:45 PM. This meeting will be chaired by Barbara H. Partee, LSA President. The members of the Resolutions Committee are Robert Austerlitz (Chair), Kenneth Hale and Arnold Zwicky. The rules for motions and resolutions appear on page xi.

• 1986 Presidential Address

Barbara H. Partee, the 1986 LSA President, will deliver her Presidential Address at 5:00 PM in the Murray Hill Suite. The address is entitled, “Possible Worlds and Possible Languages.”

• LUC Information Meeting

The LUC Consultant Panel will meet 7:00-9:00 PM in Gramercy Suite B. Society members interested in hearing about the progress of the project are invited to take part in the session as well.

SATURDAY, 27 DECEMBER

EVENING

8:00-9:30 PM
LSA SYMPOSIUM: MARGARET BULLOWA AND THE METHODOLOGY OF CHILD LANGUAGE RESEARCH: CASE STUDY OF A PIONEER

Chair: Lise Honn (U CO)
Room: Sutton Parlor Center
Joanne S. Chait (Harvard U): Margaret Bullowa, M.D.: Physician and Scholar
Thomas Seaver (U Rochester): Language Just Outside the Womb. A Pioneer of Baby-Listening
Catherine Snow (Harvard U): Before Language: Margaret Bullowa’s Contributions to Our Understanding of Continuities in Communicative Development
Jean Berko Gleason (Boston U): Bullowa’s Work in Historical Perspective

7:00-10:00 PM
AAAL SYMPOSIUM: ENGLISH FOR SPECIAL PURPOSES IN APPLIED LINGUISTICS

Organizers: John Swales (U MI)
Ann Johns (SDDS)
Room: Regent Parlor
PATRICIA CARRELL (SUI): Implications and Future Directions of Research on Second Language Reading
JO ANN CRANDALL (CAL): Linguistic Problems in Math: A Further Look at Math Register
MIRIAM EISENSTEIN (NYU): The Relevance of Cross-Cultural Pragmatics for ESP
ANN JOHNS (SDDS): The Discourse Communities Dilemma: Identifying Transferable Skills for EAP
JOHN SWALES (U MI): ESP in Applied Linguistics: Marriage à la mode?
<table>
<thead>
<tr>
<th>Time</th>
<th>Session A: Phonology/Lexical and Phrasal</th>
<th>Session B: Syntax/Semantics</th>
<th>Session C: Syntact/Typology</th>
<th>Session D: Historical-Comparative Linguistics: Indo-European</th>
</tr>
</thead>
</table>

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<tr>
<th>Session G: AAAL: DISCOURSE</th>
<th>Time</th>
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</thead>
<tbody>
<tr>
<td>9:00</td>
<td>Senko K. Haynard (Rutgers U): Verbality in Conversation Management: Fragmentation of Discourse and Back-channel Expressions in Japanese and English</td>
</tr>
<tr>
<td>9:30</td>
<td>Janice Bernstein (HSU) &amp; Carol Myers Scotton (U SC): Teaching Communicative Competence through Analysis of Natural Conversation</td>
</tr>
<tr>
<td>10:00</td>
<td>Susan Pikal (Evergreen SC): Verbal and Nonverbal Strategies of Rapport</td>
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<tr>
<td>10:30</td>
<td>Denise E. Murray (SJRU &amp; IBM Los Angeles Sci Ctr): Requests at Work: Negotiating the Conditions for Conversation</td>
</tr>
<tr>
<td>11:00</td>
<td>Judith A. Parker (Brown U): Focusing on Syntactic and Discourse Structure in LFL Reading Instruction</td>
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<tr>
<td>11:30</td>
<td>Teresa Pica (U PA): Negotiated Interaction as an Aid to Second Language Production</td>
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<tr>
<td>Time</td>
<td>Panel A</td>
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<tr>
<td>2:00</td>
<td>Kimberly Jansen &amp; John Baugh (U TX-Austin): When Whites Talk to Blacks</td>
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<tr>
<td>2:40</td>
<td>Ellen F. Prince (U PA) &amp; Gregory Ward (Northwestern U): On Topicalization and Indefinite NPs</td>
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<tr>
<td>3:00</td>
<td>Paul J. Hooper (SUNY-Binghamton): Word Order and and Participant: Deixis in Old English</td>
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<tr>
<td>3:20</td>
<td>Francesca Merlin (U Sydney): Discourse Structure in a Poly-Synthetic Language</td>
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<tr>
<td>4:00</td>
<td>*Charlotte Linds (NASA): The Quantitative Study of Communicative Success</td>
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<tr>
<td>4:45</td>
<td>Jane Frank (Georgetown U): Marital Conflict: Interactional Discourse Analysis of a Conversational Argument</td>
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**PHENOMICS**

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<thead>
<tr>
<th>Time</th>
<th>Panel C</th>
<th>Panel D</th>
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<tbody>
<tr>
<td>2:00</td>
<td>Mary R. Smith (Cambridge U): Perceptual Vector Analysis and Historical Stress Shifts in English Disyllables</td>
<td>2:00 *Steven C. LaPointe (Wayne SU): An Autotactic Account of Derverbalized Forms</td>
</tr>
<tr>
<td>2:20</td>
<td>D. M. Whalen (Kaskin Labs) &amp; Patrice S. Bednor (Yale U): The Perceptual Link Between Vowel Duration and Nasalization</td>
<td>2:45 Jan Van Voorst (Calgary Inst for Humanities): Involvement Semantics</td>
</tr>
<tr>
<td>2:40</td>
<td>Jan Charles-Luce (IN U): Effects of Semantic Context on the Neutralization of Voicing in Catalan</td>
<td>3:05 Sarah M. Pagan (U MD): Reflexives, Vocation and Transitivity</td>
</tr>
<tr>
<td>3:00</td>
<td>Mary E. Beckman (OSE) &amp; Jan Edwards (Hunter C, CUNY): The Phonological Domain of Word-Final Lengthening</td>
<td>3:25 William Croft (U HI): Surface Subject Choice in Mental Verbs</td>
</tr>
<tr>
<td>3:40</td>
<td>Franz Seitz (Oxford U): The Production and Perception of Implosives in Vietnamese</td>
<td>4:05 Steven Franko (U MD): Theta-rule Assignment in NPs and VPs</td>
</tr>
<tr>
<td>4:00</td>
<td>Harriet Nagen (Yale U &amp; Haskins Labs): Coarticulatory Effects Between Vowels of Non-Adjacent Syllables</td>
<td>4:25 Diane Hassam (U Queen-Montreal): Non-Thematic Subjects and the Theta-Criterion</td>
</tr>
<tr>
<td>4:20</td>
<td>John Kingston (Cornell U): Timing Depends on Fo; Data from Pular</td>
<td>4:45 Greg M. Carlson (U IL) &amp; Michael K. Tenenhaus (U Rochester): Thematic Roles in Theory of Garden-Path Recovery</td>
</tr>
<tr>
<td>4:40</td>
<td>Rena Ance Krakow (Yale U &amp; Haskins Labs): Prosodic Effects on Velar Movements</td>
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</table>
### AAAL: LANGUAGE USE, LANGUAGE POLICY AND BILINGUALISM
*Room: Clinton Suite*

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>2:00</td>
<td>Tina Raffaldini (DePaul U)</td>
<td>Attribution of L2 Communicative Ability Among Former Year Abroad Students of French</td>
</tr>
<tr>
<td>2:30</td>
<td>Margie Berns (Purdue U)</td>
<td>English in Germany: A Sociolinguistic Profile of Uses and Attitudes</td>
</tr>
<tr>
<td>3:00</td>
<td>Mea Wu Lee (SUNY-Stony Brook)</td>
<td>Linguistic Theory and Bilingual Code-Mixing: Comprehension of Reflexives</td>
</tr>
<tr>
<td>3:30</td>
<td>Dorit Kaufman &amp; S.N. Sridhar (SUNY-Stony Brook)</td>
<td>The Process of Becoming a Bilingual: Simultaneous Language Loss and Language Acquisition</td>
</tr>
<tr>
<td>4:00</td>
<td>Craig Stiles (DePaul U)</td>
<td>Evaluating Language Planning: A Procedural Outline</td>
</tr>
<tr>
<td>4:30</td>
<td>Sami Abu-Asab (U Toledo)</td>
<td>The Arabic Adaptation of Sesame Street: Implications for Language Policy</td>
</tr>
</tbody>
</table>

### SYNTAX/GRAMMATICAL RELATIONS
*Room: Nassau Suite*

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>2:00</td>
<td>Judith Aissen (UCSD)</td>
<td>Multiaffixation, Multisubjectivity, and Quantifier Binding in Tzotzil (Mayan)</td>
</tr>
<tr>
<td>2:20</td>
<td>William Davies (UI IA)</td>
<td>KINeru Causatives and Monovalency</td>
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<tr>
<td>2:40</td>
<td>David B. Solnit (Cornell U)</td>
<td>Argument Structure, Grammatical Relations and Causativity in Kayah Compound Verbs</td>
</tr>
<tr>
<td>3:00</td>
<td>Michiko Terada (U MA-Amherst)</td>
<td>Unaccusativity and QPs in Japanese</td>
</tr>
<tr>
<td>3:20</td>
<td>Donna E. Gerdes (SUNY-Buffalo)</td>
<td>The Coast Salish Passive: Morphology Interfering with Syntax</td>
</tr>
<tr>
<td>3:40</td>
<td>Brian D. Joseph (OSD)</td>
<td>Is Raising to Prepositional Object a Possible Rule of Grammar?</td>
</tr>
<tr>
<td>4:00</td>
<td><em>Ivan S. Sag &amp; Jeffrey Goldberg (Stanford U) &amp; Lauri Karttunen (Stanford U &amp; SRI Int'l)</em></td>
<td>Icelandic Case Marking: A Monotonic Non-Filtering Analysis</td>
</tr>
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### AMERICAN DIALECT SOCIETY
*Room: Morgan Suite*

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>2:00</td>
<td>Nancy L. Day (U Chicago)</td>
<td>The Double Construction in English</td>
</tr>
<tr>
<td>2:30</td>
<td>Frank Parker (LSU) &amp; Kathryn Riley (U TO)</td>
<td>Pronoun Case in Coordinate Constructions: Syntactic and Pragmatic Explanations</td>
</tr>
<tr>
<td>3:00</td>
<td>Herbert Penz (U CA-Berkeley)</td>
<td>/bæːʃ-/bæːʃ/ Isogloss in New England and the History of English</td>
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</tbody>
</table>

### EVENING

#### AAAL: SECOND LANGUAGE ACQUISITION AND TRANSLATION
*Room: Clinton Suite*

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>8:40</td>
<td>Amy Sheldon &amp; Terry L. Johnson (U MN)</td>
<td>Second Language Transfer: The Interpretation of False Cognates in Swedish by Norwegians</td>
</tr>
<tr>
<td>8:50</td>
<td>Judith A. Glert (IN U)</td>
<td>On the Integration of Phonological Research in Speech Disorders and Second Language Acquisition</td>
</tr>
<tr>
<td>9:00</td>
<td>Bruce T. Downing &amp; Judith Wheaton Fuller (U MN)</td>
<td>English to Hmong Translation: What Communicates?</td>
</tr>
<tr>
<td>9:30</td>
<td>Gerald P. Berent (RIT)</td>
<td>A Government Hierarchy in Language Acquisition</td>
</tr>
<tr>
<td>10:30</td>
<td>Nina Garrett (U IL-Urbana-Champaign)</td>
<td>Is It Linguistics That We Want to Apply to Second Language Acquisition?</td>
</tr>
<tr>
<td>10:30</td>
<td>Jacqueline Schachter (U SC)</td>
<td>Second Language Acquisition and Universal Grammar</td>
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### LSA COLLOQUIA
*Room: Sutton Parlor Center*

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<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Guy Garden (U BC)</td>
<td>CROSS-LINGUISTIC PARAMETERS FOR REFLLEXIVES:</td>
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<tr>
<td>8:30</td>
<td>Donna Gerdes (SUNY-Buffalo)</td>
<td>Organizers: Guy Garden (U BC)</td>
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<tr>
<td>8:30</td>
<td>John Whitten (Harvard U)</td>
<td>Discussants: Donna Gerdes (SUNY-Buffalo)</td>
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<tr>
<td>9:00</td>
<td>Annie Zeman (Xerox-PARC)</td>
<td>John Whitten (Harvard U)</td>
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<tr>
<td>9:30</td>
<td>BASIS GRAMMAR</td>
<td>Discussants: Mark Baltin (NYU)</td>
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<tr>
<td>9:45</td>
<td>David Perlmutter (UCSD)</td>
<td>Organizers: David Perlmutter (UCSD)</td>
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<tr>
<td>9:45</td>
<td>Stanley Peters (Stanford U)</td>
<td>Stanley Peters (Stanford U)</td>
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<tr>
<td>10:00</td>
<td>William Ladusaw (UCSD)</td>
<td>Discussants: Mark Baltin (NYU)</td>
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<tr>
<td>10:15</td>
<td>Anthony Woodbury (U TX-Austin)</td>
<td>William Ladusaw (UCSD)</td>
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### MORNING

**PHONOLOGY: NONLINEAR**  
**Chair:** Robert Vago  
**Room:** Murray Hill Suite

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker &amp; Affiliation</th>
<th>Paper/Topic</th>
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<tbody>
<tr>
<td>9:00</td>
<td>Jorge Naszméter (Koszeg) &amp; Aditi Lahiri (Max Planck Institute)</td>
<td>The Timing of Underlying and Derived Germinates</td>
</tr>
<tr>
<td>9:20</td>
<td>Bruce Regenshtein (U NC)</td>
<td>Assimilation by Spreading and Tigrinya Speech Disguise</td>
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<tr>
<td>9:40</td>
<td>David Michaels &amp; Rosyine Jiedgen (U CT)</td>
<td>Rules and Syllable Structure in Zoque</td>
</tr>
<tr>
<td>10:00</td>
<td>Amy J. Uhdebach (U TX-Austin)</td>
<td>Rwandan Vowel Distribution</td>
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<tr>
<td>10:20</td>
<td>Oui-Sun Moon (U TX-Austin)</td>
<td>Nasal Harmony in Agauruma</td>
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<tr>
<td>10:40</td>
<td>Jennifer Cole (MIT)</td>
<td>Harmony Within Linked Structures</td>
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<tr>
<td>11:00</td>
<td>Donca Steriade (NYT)</td>
<td>Vowel Paces and Inalterability Effects</td>
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<tr>
<td>11:20</td>
<td>Barbara Lervergoon (U TX-Austin)</td>
<td>Nandi Length Dissimilation and the Twin Sister Convention</td>
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<tr>
<td>11:40</td>
<td>S. Paul Verheyter (U Antwerp)</td>
<td>A Comparative Evaluation of Five Phonological Theories on French Schwa Deletion</td>
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**SYNTAX/TYPOLOGY**  
**Chair:** Anthony Hargett  
**Room:** Sutton Parlor Center

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<tr>
<th>Time</th>
<th>Speaker &amp; Affiliation</th>
<th>Paper/Topic</th>
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<tbody>
<tr>
<td>9:00</td>
<td>Thomas C. Smith-Stark (U Mexico)</td>
<td>The Active-Static Nature of Amungo (Otomanguean)</td>
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<tr>
<td>9:20</td>
<td>Mark Durie (Cowell C, UCSC)</td>
<td>Grammatical Relations in Achehnese</td>
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<tr>
<td>9:40</td>
<td>Utpal Lahiri (Syracuse U)</td>
<td>The Ergative Construction in Modern Indo-Aryan</td>
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<td>10:00</td>
<td>Peride Erku (West Pub Co &amp; Hamline U)</td>
<td>Turkish Passives and Agent Defocusing</td>
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<tr>
<td>10:20</td>
<td>Donald Steinmetz (Augsburg C) &amp; Curtis Rice (U TX-Austin)</td>
<td>Gender in Dutch: Tamatee Houns</td>
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<tr>
<td>10:40</td>
<td>Ronald P. Schaefer (SIO-Edwardsville)</td>
<td>Localization in Emai</td>
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<tr>
<td>11:00</td>
<td>Michael D. Kifker (McMaster U)</td>
<td>The Attenuation of Syntax: A Brazilian Example</td>
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<tr>
<td>11:20</td>
<td>Michael Barlow (Stanford U)</td>
<td>Agreement and Unification</td>
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**HISTORICAL LINGUISTICS**  
**Chair:** Robert J. Jeffers  
**Room:** Regent Parlor

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<tr>
<th>Time</th>
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<th>Paper/Topic</th>
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<tbody>
<tr>
<td>9:00</td>
<td>George Wolf (C Wm &amp; Mary)</td>
<td>Breath and Sausure: Influence and Reaction</td>
</tr>
<tr>
<td>9:45</td>
<td>Suzanne Kermer (Stanford U)</td>
<td>Dischronic Processes in the History of Reflexives</td>
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<tr>
<td>10:05</td>
<td>Dominique Estival (U PA)</td>
<td>The Development of Indirect Passives in English</td>
</tr>
<tr>
<td>10:25</td>
<td>Jacob Honkama (U PA)</td>
<td>A Constraint on Governors in the West Germanic Verb Cluster</td>
</tr>
<tr>
<td>10:45</td>
<td>Robert W. Murray (U Calgary)</td>
<td>Sievers’ Law, the Converse, and Exceptions in Germanic</td>
</tr>
<tr>
<td>11:05</td>
<td>Anita K. Barry (U MI-Flint)</td>
<td>Clitics and Participles in Spanish: An Historical Perspective</td>
</tr>
<tr>
<td>11:25</td>
<td>Alice Faber (U FL)</td>
<td>A Sporadic Change Involving Semitic Sibilants</td>
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<tr>
<td>11:45</td>
<td>Peter T. Daniels (U Chicago)</td>
<td>Toward the Linguistic Study of Writings Aramaic Orthographies</td>
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### OTHER EVENTS

**Room:** Nassau Suite

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Chair</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
<td>Business Meeting</td>
<td>Dell Nymes (U PA)</td>
</tr>
<tr>
<td>10:00</td>
<td>Invited Lecture</td>
<td>Shana Poplack (U Ottawa): A Sociolinguistic Paradigm for Grammars in Contact</td>
</tr>
</tbody>
</table>
The following rules for motions and resolutions were prepared by William J. Gedney and Ilse Lehiste and approved by the Executive Committee at its June 1973 Meeting. LSA members are urged to follow these ground rules in order to have their motions and resolutions considered at the Business Meeting.

**RULES FOR MOTIONS AND RESOLUTIONS**

1. **DEFINITIONS.**

A motion is any proposition calling for action whether by an officer of the Society, the Executive Committee or the membership. A resolution expresses the opinion or feeling of a group. Resolutions are of two kinds: a) resolutions expressing 'the sense of the majority of the meeting,' and b) resolutions expressing 'the sense of the majority of the membership.'

2. **PROCEDURE REGARDING MOTIONS.**

2a. Motions are in order only at the duly constituted annual business meeting. Voting is restricted to members of the Society. Motions may be initiated by the Executive Committee or from the floor.

2b. Motions initiated by the Executive Committee require for their passage a majority vote of the members voting at the meeting.

2c. Motions initiated from the floor, if they receive affirmative vote of a majority of members voting at the meeting, are then to be submitted by the Executive Committee to a mail ballot of the membership of the Society in the next issue of the LSA BULLETIN. Passage requires: a) a majority of those voting, and b) that the total of those voting in favor must be at least 2.5% of the personal membership.

2d. If a member wishes to introduce a motion, but prefers to avoid the delay involved in 2c above, the motion may be submitted in advance to the Executive Committee (before their regular meeting preceding the business meeting at which the motion is to be introduced) with a request that the Executive Committee by majority vote of the Committee approve the introduction of the motion at the business meeting as a motion initiated by the Executive Committee (see 2b above).

3. **PROCEDURE REGARDING RESOLUTIONS.**

3a. Resolutions may be introduced at the annual business meeting or at any special meeting of the Society, such as the summer meeting.

3b. A Resolutions Committee consisting of three members will be appointed by the President prior to the beginning of each regular or special meeting. Any member wishing to introduce a resolution must submit it in advance to the Resolutions Committee, which, in addition to its traditional duty of formulating resolutions of thanks and the like, will have the duty to make sure that the language is clear, and that duplication is avoided. The Resolutions Committee may meet in advance for this purpose or may, if necessary, retire to caucus during the course of the meeting.

3c. A resolution expressing the sense of the majority of the meeting requires for its passage the affirmative vote of a majority of the members voting at the meeting.

3d. If at least ten members present at the meeting so desire, a resolution may be broadened to express 'the sense of the majority of the membership,' regardless of whether or not it has passed the procedure in 3c above, by the following steps: the resolution is forwarded to the Executive Committee for submission to the membership by mail ballot (in the next issue of the LSA BULLETIN). Passage of such a 'sense of the majority of the membership' resolution requires the affirmative vote (more than 50%) of the membership responding.
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<td>Barbara Lust, Tatsuko Vahayama, Kazuo Otani, &amp; Reiko Hisaka (Cornell U): When is an Anaphor not an Anaphor?: A Study of the Acquisition of Japanese “zibun”</td>
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STATEMENT FROM THE PROGRAM COMMITTEE

The abstracts which appear in this Meeting Handbook are photocopies of the originals submitted to the LSA Program Committee. Infelicities of style, grammar, punctuation, and spelling are the responsibility of the authors.
ABSTRACTS

of the Linguistic Society of America

regular papers
What Are Natural Kind Terms?

Take "natural kind term" (NKT) to mean 'general term without a Fregean sense'. Two related issues are considered: which terms are NKTs, and why? 5 criteria for distinguishing NKTs are examined. Two are of little help: not all terms for things existing in nature are NKTs (viz. filly, planet); and if "rigid designation" means 'having a constant function as intension', then few general terms (and few if any NKTs) are rigid. (If it means 'having the same designation in all possible worlds', and general terms are held to designate kinds, then all general terms are rigid.) The remaining 3 criteria converge on the class, but not straightforwardly. The best criterion is the possibility of constructing a Putnamian 'twin earth' example. This gives us terms whose denotation conditions are given by scientifically determined 'internal structure' properties. (It also suggests an answer to the "why" question: NKTs are intended as labels for nature's abstractions.) It is argued, contra Putnam and Kripke respectively, that artifact terms (pencil, chair) and sensation terms (e.g. pain) are properly excluded from the class of NKTs by this criterion. The 4th criterion is naming an essential property of a thing. This works well for common nouns (it is argued, contra Kripke, that artifact terms don't name essential properties) but not for adjectives like red. Finally, it may be possible under certain circumstances to construct (non-nokey) 'extensionally analytic' sentences for some NKTs.

JUDITH AISSEN, University of California-Santa Cruz

Multiattachment, Multistratalism, and Quantifier Binding in Tzotzil (Mayan)

Two central claims of Relational Grammar/Arc Pair Grammar are supported through an analysis of quantifier binding in Tzotzil. These are: 1) "multiattachment" -- representations in which one element bears more than one grammatical relation; 2) "multistratalism" -- multiple levels in syntactic representation. Neither assumption is peculiar to RO/AP0, but both are central tenets, and both are controversial. Primary focus here is on the argument for multiattachment. Tzotzil has clauses containing a quantifier which is syntactically a clausal dependent, but semantically binds some nominal in the clause. Two constraints on binding are established: 1) ergatives cannot be bound, 2) initial absolutes are bound in preference to non-initial absolutes. The robustness of restriction (2), operative in clauses involving 3-to-2 advancement, supports multistratalism since the initial/non-initial distinction depends on it. The argument for multiattachment is based on the relaxation of restriction (1) on ergative binding just in one case: reflexive clauses. If the representation of coreference involves multiattachment, as assumed in RO/AP0, then what is final subject (ergative) in reflexive clauses is both initial subject and initial direct object. On this account, it is entirely coherent to assert that the ergative in reflexive clauses is the initial absolute, thus accounting for the possibility of binding ergatives in reflexive clauses.

MELISSA AXELROD, University of Colorado

Word-based Morphology: Some Problems from a Polysynthetic Language

Aronoff (1976), Scalise (1985) and others describe a theory of word or stem-based morphology which proposes that word formation rules attach one and only one affix at a time, i.e., the internal structure of a word will always be binary. This paper examines the appropriateness of this theory for analysis of a polysynthetic language, Koyukon, an Alaskan Athabaskan language. Data are presented to demonstrate that a single derivational operation in Koyukon frequently entails the simultaneous addition of two or more separate affixes (with no consistent correlation between the number of affixes and the number of derivational operations). These strings of affixes constitute discontinuous dependencies which allow Koyukon to be described only by a context sensitive grammar. This also presents problems for a computational analysis of Koyukon following a theory of word-based morphology such as those described by Byrd et al (1986) or Koskenniemi (1983). Because this is a language that can only be described by a context sensitive grammar, a finite state automaton would be inadequate to parse it. A parser would be unable to produce a bracketed structure and would require an elaborate semantic component in order to resolve ambiguities resulting from homophonous affixes.
AVIGAIL AZOULAY-VICENTE, Pennsylvania State University

Recoverability of Empty categories

An empty category (e,c.) must be: (a) licenced, by means of the ECP (or the Connectedness Condition); and (b) interpreted, through an A or A-chain. This paper discusses condition (b) and shows that it is insufficient to account for cases of extraction of a quantifier phrase (QP) from the specifier position of NP. French allows (1) Combin as-tu bu de thé? (How much have you drunk-of-tea?), and (2) Tu as beaucoup bu de thé (You have-much-drunk-of-tea). Similar possibilities are found in Spanish, Rumanian and other languages. The A-chain (QP, e,c.) is not sufficient to assign an interpretation to the e,c. I will propose that the head of the NP must be integrated into the chain, viz. (QP, e,c., N) and I will show that such a chain is possible only when the preposition de is present in surface structure and acts as a connector relating the QP to the nominal Head, a relation possibly marked by coindexing. This hypothesis will account for the contrast between (1) and (3) *queles as-tu lu livres? as well as for other related constructions (e.g. L-Tous) and for the absence in French of headless relative clauses. Implications for comparative syntax will be discussed; more specifically the contrast between (1) above and the English *How many did you read of those books? will be related to the difference between the French preposition de and English of.

BRUCE BAGEMIH, University of British Columbia

Assimilation by Spreading and Tigrinya Speech Disguise

Hayes 1986 argues that all assimilation processes are the result of autosegmental spreading. While generally quite revealing, this theory is ambiguous with respect to processes that share characteristics of both partial and total assimilations. In Tigrinya, for example, there are a number of regressive assimilations which convert homorganic stop sequences that differ only in laryngeal or nasal features into geminates, e.g. kk+kk. That the resulting structures are true geminates is confirmed by the fact that they resist a general process of spirantization, but this integrity is compatible with a double linking either on an intact melodic tier or on a peripheral sub-tier of laryngeal/nasal features. This paper presents data from a form of Tigrinya speech disguise which shows that in fact only the first possibility is correct. In particular, disguised forms (which involve the insertion of *y* after every syllable) require that the segments displaced by assimilation be phonetically realized. This indicates that the affected segment must have been floated intact prior to tier decomposition rather than having only some of its features displaced. Since there is no evidence in the normal language that the assimilation has taken place on a unitary melodic tier, it is argued that this must reflect a general constraint on assimilation rules.

PHILIP BALDI, Pennsylvania State University

Lachmann's Law Again!

The phenomenon of Latin morphophonology known as Lachmann's Law (L.L.) has received much attention recently. As traditionally formulated, L.L. refers to the shortening of the vowel mark in the past participle of verbs whose root form ended in a plain vowel stop in PIE. Contrast the following: cāpio: cāptum < *p vs. āgg: āctum < *g; pāpio: pāctum < *k vs. reō: rectum < *g; pīlego: pīlēxum < *t vs. ādeo: āsum < *d. This formulation has been attacked countless times with troublesome counterexamples which show that it and other phonetic solutions are untenable (e.g. grādior: grēsāsum; tūnīdo: tūnīdēs; sēdeo: sēsum). Recent developments in the theory of PIE phonology, specifically the glottalic model, suggest a new account of L.L.. In the new system, the voiced stops responsible for the action of L.L. no longer exist as independent phones, having been reformed as glottalized stops, i.e. *b = p̥, *d = t̥, and *g = k̥. The different behavior of the vowels in, e.g., sēdeo: sēsum vs. ādeo: āsum lies in the fact that sēdeo is from *sed- (< *PIE *d̥d̥-), while ādeo is from *at-. Similarly, āctum is from *æk̥, ādeo: āctum is from rek̥, etc. The solution to the bulk of L.L. examples is that roots reflecting PIE glottalized stops lengthen in past participles, while those from voiced stops (aspirated and non-aspirated) do not. A new account of Latin phonology which justifies these reconstructions will be provided.
Agreement and Unification

Agreement marking is often considered to be redundant. Typically, the features of the nominal source are also manifest on the target (verb, etc.). However, there are numerous examples (such as (1)) from Modern Standard Arabic which show that agreement cannot be characterized as an identity relation.

(1) ana kabillaatu 'I am old'
    I(8G) old(fem.sg)

In (1) the source, the pronoun 'I', is specified for number, but not gender. The target 'old', on the other hand, exhibits both number and gender features. Examples such as (1) suggest that traditional feature-copying accounts of agreement (e.g., Vanek 1977)—which essentially involve 'copying' of agreement features from a fully specified source onto the target—are unsuitable as a general characterization of agreement relations. At best, a feature-copying account leads to unwelcome consequences for the morphological component (e.g., multiple homophonous forms). In contrast, the treatment of agreement as a 'structure-merging' or unifying operation (Karttunen 1984, Shieber 1986) would account for examples such as (1), since under such treatments (a) the nominal source may be only partially specified and (b) an agreement relation involves a sharing of information found in the source and target of agreement.

ANTPA K. BARRY, University of Michigan-Flint

Clitics and Participles in Spanish: An Historical Perspective

It is a puzzling anomaly in Modern Spanish syntax that clitic pronouns may be postposed onto present participles but not past participles: Estoy leyéndolo 'I am reading it,' but not *He leído 'I have read it.' On the face of it there is no reason for this difference in syntactic behavior, since both are nonfinite verb forms and both occur in compound verb phrases with an auxiliary verb. The present paper offers an explanation for the synchronic difference between them based on an historical analysis of their respective grammatical and discourse functions throughout the written history of Spanish. It is argued that this history reveals differences not readily apparent from a synchronic point of view: the present participle as an indicator of foregrounded narrative events, active in voice, and occurring primarily in phrase-initial position; the past participle as an indicator of backgrounded events, passive in voice, and frequently occurring phrase-internally. These differences interacted with constraints on clitic placement which are no longer operative in the grammar but have left their mark on clitic position with respect to the participles. The data consists of thirty-two 10,000-word selections of narrative prose spanning the thirteenth through the twentieth centuries.

ELLEN L. BARTON, Wayne State University

Levels of Representation in a Pragmatic Model

The result of the constraint of autonomy on generative grammars is that the burden of accounting for interpretation and acceptability is shifted from semantics to pragmatics. However, the nature of a pragmatic model describing native speaker ability to produce and understand acceptable utterances in context is not clear. Following Grice's (1957, 1975) distinction between literal meaning and implicated meaning and Wilson and Sperber's (1986) notion of relevance as the basis for pragmatic interpretation, I propose that a pragmatic model has two levels of representation. The levels are separate because each one is associated with a characteristic type of inference. The first level is a representation of linguistic context; interpretation at this level is based on the operation of discourse inference. The second level is a representation of conversational context; interpretation at this level is based on the operation of cooperative inference. Each level of the model has a principle that describes the structure of context, and each principle has an associated rule of inference that elaborates the structure of context. Each principle also has associated conditions of acceptability and unacceptability governing the application of rules of inference. I motivate the levels and rules within the pragmatic model by analyzing the interpretation and acceptability of constituent utterances, independent major category structures (NPs, VPs, APs, ADVPs, PP's, S's) within discourse.
The First Sister Principle and English Compound Stress

Kiparsky (1982) draws on Roep and Siegel (1978) and proposes the First Sister Principle (FSP) for English verbal compounds. This principle, which has analogues in many current theories of morphology, blocks compounds like *girl swimming, where girl is interpreted as the (nonsister) subject of the verbal base swim. Kiparsky noticed that verbal compounds like population growth, which heads derived at level 1, violate the FSP in that the first element can be interpreted as the subject of the base grow. This paper examines other violations of the FSP and shows that compound stress interacts with these violations in an interesting way.

Among compounds which have characteristic compound stress on the first constituent, violations of the FSP occur when the head is derived at level 1: population growth, heart failure; those with heads derived at level 2 behave as predicted by the FSP: *kid eating girl swimming. In contrast, when Noun-Noun items have stress on the second constituent, violations of the FSP occur both in forms with heads derived at level 1 (student rebellion, factory specification) and those with level 2 derived heads (state borrowing, government funding). That is, the first sister restriction is relaxed in compounds with stress on the second constituent. In order to capture this generalization, an adequate theory of English morphology must be able to exploit differences in compound prominence and level distinctions.

MARY E. BECKMAN, Ohio State University
JAN EDWARDS, Hunter College, City University of New York

The Phonological Domain of Word-Final Lengthening

Durations of word-final syllables are often longer than they would be word-externally. An earlier experiment showed that the domain of this word-final lengthening must be a phrasal unit smaller than the intonational phrase, a level tentatively labeled the prosodic word (PW). We have designed two further experiments to determine whether the PW can be identified with some metrical unit such as the stress foot. In the first experiment, we compared durations in sentences that contrasted word boundary placement (e.g., pop opposed versus pappa posed) and had variously placed accents (e.g., eliciting an emphatic stress on the pop so as to preclude any following accents). Results showed significant main effects for both word boundary placement and accent placement, but no significant interaction. Thus the PW cannot be identified with an intermediate-level metrical unit that is the domain of pitch accents. In the second experiment, we will distinguish between two possible interpretations of this result by comparing phrases with identical stress patterns but contrasting word structure (e.g., asperation versus super station). If these two patterns show no significant difference, then the PW can be identified with some lower-level metrical unit defined by stresses, such as the stress foot. On the other hand, if the durations of the first two syllables in asperation and super station differ, this result would suggest that phrasal units are orthogonal to the domains of stress at this level of the metrical hierarchy.

AVA BERINSTEIN, Smithsonian Institution

The Role of Intonation in K'ekchi Mayan Discourse

In this paper I examine the role of intonation in K'ekchi discourse structure. In K'ekchi there is a fixed final stress rule. Pitch accents occur on the stressed syllable of a lexical item and signals intonational prominence. A nuclear accent occurs on the stressed syllable of the rightmost word in the phrase. An intonational phrase contains one or more pitch accents, a hi tone nuclear accent, a hi or low tone phrase accent, and a hi or low boundary tone (using terminology of Pierrehumbert (PH) 1980, and Liberman & PH 1984). It is shown that in K'ekchi 1) sequences of intonation phrases (roughly corresponding to phrasal and clausal constituents) are "linked" prosodically. That is, there is a prosodic cue that signals whether the unit has a continuation. And 2) there is a prosodic cue that signals the termination of the text unit. Phrases that are group-initial and group-final are perceived as having a final rising pitch; while group-terminal phrases are perceived as having a final falling pitch. The acoustic correlate of this measure is fundamental frequency. Since all intonation phrases are marked by a final hi nuclear accent, the distinction between continuation and termination depends upon the phrase accent (which immediately follows the nuclear accent; see also Bruce 1977), and the boundary tone. More precisely, the distinction follows automatically from the tone sequence that is set off with an intonation phrase. Additionally, pitch range and final lowering provide further evidence for the prosodic coherence of a group.
SHMUEL BOLOZKY, University of Massachusetts-Amherst (TUES NORN: C)

On Discontinuous Canonical Patterns in the Modern Hebrew Noun

Semitic noun formation is not as rigorously constrained by canonical derivation patterns as the verb system is. While any verbal form must be realized in one of a restricted set of consonantal-vowel configurations, many nouns are not — borrowed ones are rarely modified, and some nominal affixes are appended to stems without restructuring them internally (except for possible vowel reduction, unrelated to any imposed pattern). Thus, the Modern Hebrew (MH) affixes *-ıf, -ıwıf, -ırf* do not require a concomitant consonant-vowel configuration in the stem. How productive in MH today is this type of "linear" derivation compared with the more rigorous formation by canonical prototypes? The paper will consider MH CaCCan via a via its variant *naa*, that is appended to unaffected stems, e.g. batlan 'loafer', kablan 'contractor', vs. xalilan 'flutist', maxahran 'operator of instrument(s)'. The latter (Naan) is a more recent formation, with the majority of occurrences found in MH. Is it taking over? Not necessarily; many Naan cases are now shifting back to CaCCan in the colloquial, e.g. xolman 'dreamer'> xalman, xassan 'tactician' > taxassan. It will be shown that shifts of the maxıev 'computer' > maxexev and the mixbasa 'laundry' > maxbasa types do not signal loss of canonical patterns either, and that discontinuous morphemes continue to be productive in MH noun formation.

TONI BORONSKY, A T&T Bell Laboratories (SUN NORN: A)

Syllabification, English, and Lexical Phonology

In word medial position in English, generalizations about syllable structure made on the basis of possible word-final sequences (i.e. modulo appendices) do not hold. Inside words the English rime is restricted to two positions. All exceptional cases of syllables of the form VCC$|$ or VCC$|$ are systematically exceptional in that the two consonants are linked for place. The asymmetry found in the distribution of codas is shown to follow, in a lexical model, from the interaction of a coda condition (after ito 1966) and the principle of Structure Preservation. The actual syllabification possibilities are different at levels 1 and 2 due to the intrinsic differences found independently at these levels. The exceptions are explained through interaction of the coda condition with the Geminate constraint (Hayes Steriade etc.) Support for the proposed system of syllabification is drawn from facts about the distribution of medial clusters and syllabic sonorants, as well as from a study of Vowel Shortening in closed syllables. Thus we explain alternations like child, children as well as considering why it is that sequences such as VCC occur finally but do not occur medially, except in words like Cambridge, Boulder and a few other such forms, where codas are generally of the form VC, or VV: keep, kept; description, etc.

GUY CARDEN, University of British Columbia (TUES NORN: D)
WILLIAM A. STEWART, City University of New York-Graduate Center

Unexpected Reflexive Parameters in Pidgins and Creoles

In most familiar languages, 3rd-person object pronouns must be marked as reflexive [+R] or as anti-reflexive [−R]. Thus in "John hit himself/him", himself [+R] must be coref. with John, while him [−R] must be disjoint in reference from John. Cross-linguistically, it seems to be rare for such pronouns to be unmarked for reflexivity [−R].

However, the limited data available for 18 pidgin or creole lects shows [−R] 3rd persons for 9 of the 18. For example, Bislama hem is [−R]. "Hem i kill hem" is ambiguous between 'He killed him' and 'He killed himself'. Similar results hold for Palenquero, Annobon creole, early Haitian Creole, early Negerhollands, and 4 others. The unusual [−R] parameter setting thus appears to be heavily over-represented in pidgins and creoles. One plausible historical analysis would suggest 4 to 7 independent innovations of [−R] in pidgins and creoles, but only 2 in the non-pidgin/non-creole languages we have checked.

Is this a statistical accident, or is there a link to the process of pidginization or creolization? At first glance, Blackerton's bioprogram model of creolization offers a possible explanation, since children learning English begin by treating him as [−R] (Solan, Jakubowicz). However, the [−R] setting in pidgins like Bislama suggests that the source must be pidginization rather than creolization. Since 2nd-language acquisition data (Anyoke et al.) shows no comparable tendency toward [−R], the effect must involve specifically pidginization, rather than 2nd Language acquisition in general.
Thematic Roles in Theory of Garden-Path Recovery

In comprehending natural language, the processor finds itself confronted repeatedly with the choice of either making premature commitments which may subsequently be shown incorrect, or else suspending decisions until disambiguating information is encountered at the cost of keeping partially-processed structures in memory. A confluence of psycholinguistic evidence suggests that processing is fuller and faster than originally thought, resulting in early and often premature commitments. Garden-path sentences (e.g. "the horse raced past the barn fell") are the most obvious result of this processing organization, but in general the processor appears very adept at avoiding these, more often effortlessly recovering from an incorrect early commitment and finding the correct one. In this paper we investigate the possibility that thematic roles, associated with verb meanings, are one of the devices by which the processor achieves the necessary latent parallelism. We present experimental and intuitive evidence that reassignment of thematic roles to arguments of a verb is inexpensive in processing terms, and then proceed to sketch how thematic roles may play a central part in a theory of garden-path recovery. We compare our notions to the very similar "thematic processor" recently discussed by Frazier and colleagues.

JAN CHARLES-LUCE, Indiana University

Effects of Semantic Context on the Neutralization of Voicing in Catalan

Contrary to the phonological rule for many languages stating that the underlying voice contrast of word-final obstruents is neutralized in favor of voiceless obstruents, experimental studies have demonstrated that the underlying voice contrast appears to be acoustically preserved (Dimmensen & Charles-Luce, 1984; Charles-Luce, 1985; Slowiaczek & Dimmensen, 1985). These results, however, are based on data collected from words spoken in semantically-neutral contexts. Thus, it is not clear how semantic information affects neutralization. The present study examined the neutralization of word-final stops in Catalan when they occurred in two kinds of contexts. In one context, a test word occurred in a two-sentence paragraph that syntactically and semantically constrained the occurrence and interpretation of the word. In the other context, the same word occurred in a different two-sentence paragraph that only syntactically constrained it. Five minimal pairs, differing in the underlying voicing of the final stop, served as the test words. All test words occurred in in each kind of context and each context was constructed especially for a given word. Three correlates of underlying voicing were measured from digital waveforms: (1) preceding vowel duration, (2) voicing during closure, and (3) closure duration of the final stop. The results show that, in semantically-neutral contexts, non-neutralization is found. However, when both syntactic and semantic information is present, neutralisation is found. Thus, in the latter, more natural situation, no ambiguity is present and speakers neutralize the underlying voice contrast.

CAROLE E. CHASKI, Brown University

COMP, Case and the Greek Infinitive

The loss of the infinitive in Greek has been ably documented by Joseph 1983, but the language internal cause is still obscure. Joseph correctly argues against reanalysis under phonological changes which caused the merger of the infinitive and indicative (Bynum 1977; Antilla 1972; Toegby 1962), but offers no clear alternative other than acknowledging the beginning of the loss in Koine (Sandfeld 1950). I propose that a syntactic explanation can be traced back to properties of COMP (subcategorization and feature rules) in Classical Greek. A small set of volitional verbs takes only infinitive complements, while verbs of indirect discourse and other volitional verbs take finite and infinitive complements. Of two feature rules for the complementizers H, the first (fi FIN, then H) is required for all verbs taking finite complements, while the second (fi -FIN, then H) has a distribution which includes obligatory H for ACI where COMP marks the accusative subject, and optional H for object control structures where COMP gammakes PRO to allow case attraction. For H's presence with infinitive complements in Classical and Post-Classical, cf. Jannaris 1968; Liungovik 1932; Burgdorfs 1960 Given the high frequency of H, another feature rule (fi H, then FIN) developed. COMP was thereby relieved of case-marking properties in the ACI and case-attracted control complements. Loss of the infinitive spread as responsibility for Case shifted from INFL and COMP to INFL alone since the last feature rule requires INFL.
Pragmatic Analysis of Korean Modal Markers in Children's Speech

There has been a growing interest in analyzing grammatical markers from a discourse pragmatic perspective in both child and adult speech (Silion 1984, Gee 1986). These studies suggest new dimensions of pragmatic functions: e.g., Turkish past tense markers have recently been viewed as denoting different degrees to which the speaker assimilates an event to his/her knowledge system (Silion & Aksu 1982).

Sentence final morphemes in Korean have traditionally been considered as mood markers, e.g., indicative. Based on the data from a longitudinal study of two Korean children between 1;6 and 2;5, the paper examines the discourse functions of three 'indicative' forms -ta, -e, -ya. Both children first used the "-ta" form (e.g. "yaong-i-ta" 'it's a miaw', "un-ta" '(someone is crying') productively to describe a state or an event which they have just perceived (1;6-1;10) in the here and now. Then, the children produced "-e" and "-ya" (1;10-2;0), first, to request information (e.g., "kon-i-ya" 'Is it a bear?') and later to convey information (e.g. "neok-ess-e" '(I) ate') which was often about the past. It is argued that whereas "-ta" expresses perceptually salient events which children are (in process of) assimilating into their knowledge system, "-e" and "-ya" express events which they have (already) assimilated into their knowledge system. This analysis is in line with recent studies that modality markers may have epistemic meaning denoting different degrees of certainty about a proposition (Bybee 1985).

PRATHIMA CHRISTDAS, Cornell University

Morpheme Structure Constraints and Underspecification

This paper addresses two related issues in current theories of phonology, morpheme structure constraints (MSC) and underspecification, and proposes that underlying MSCs can be formally expressed only if a subset of the distinctive features are fully specified in underlying representations.

Kiparsky (1982, 85) proposes that MSCs are exclusively blank-filling rules applying on the first cycle to fill in predictable feature values that are unspecified in lexical entries. I will argue that some MSCs cannot be subsumed under lexical rules, specifically those that refer to the major classes of sounds obstruents, nasals, liquids, and glides, but that they must refer to both values of the features necessary to distinguish these classes. These features, which I term primary, minimally include sonorant, consonantal and continuant, as well as the place features anterior and coronal. This proposal will be supported by evidence from Irish, which has MSCs referring to both values of the primary features, as well as the feature distributed, which functions in a primary capacity. The relevant MSCs refer to sonorant geminates, retroflex consonants, glides, the r-phonemes /r/ and /r/, and the nasals /m/ and /n/, in positive as well as negative structure constraints. I will discuss the implications of this proposal for the theory of underspecification which requires that no feature be specified for both values in underlying representations.

DONALD O. CHURMA, Stanford University

Fula Doubles and (Morpho-) Phonological Theory

The best kind of evidence that a given linguistic principle must be parametrized is cross-dialectal data in which one of the values for the parameter in question appears in one of the lects, while another is present in the other. In this paper, I present evidence of this nature concerning two different theoretical issues from Fula, a West Atlantic Niger-Kordofanian language, taken from Arnott 1970. The first issue is the predictability (or lack thereof) of the behavior of geminates with respect to their 'inalterability' (Hayes 1986). The Combe dialect has undergone a historical change such that earlier (single) [g] has been deaffricated to [g]. Geminates [gg] remain for most speakers (112, 384), but other speakers have [g] (50n, 112n). This is strong evidence that, not only is it 'unlikely that a necessary condition for inalterability will be found' (Hayes, 364), it is impossible. The second issue has to do with the interaction of reduplication and phonological rules. The word for Fula in this language is Pulfulde, where the final -de is a class suffix (Arnott, 100). Clearly, the pre-suffixal material involves reduplication (cf. Pul-De 'Fulani people'). The plural of Pulfulde shows variation, with some speakers having Pulfulde, whereas speakers (pul-De) alternation is due to a general morphophonological process of consonant gradation, while other speakers have Pulful-de, which suggests strongly (contra Marr-ants 1982) that the ordering of reduplication and gradation is dialect-specific.
Perception of Accentuation in Hausa

There is a popular misconception in the literature that intonational gestures in tone languages must represent an impoverished system. Allegedly, too much deviation in the fundamental frequency would threaten to neutralize the lexical tonal contrasts. Such a belief is supported by a Miller and Tench study concluding that in Hausa, a Chadic language spoken in Nigeria, accentuation and intonation cannot be varied for the purpose of emphasizing a single word. This paper presents evidence that runs directly counter to Miller and Tench’s conclusion. The results of a perceptual experiment conducted in Nigeria show that the raising of a high tone can be perceived as highlighting the word containing that tone, and that speakers of Hausa use intonation to disambiguate certain syntactically ambiguous sentences. For example, in a sentence such as Bai biya Walli kudi ba [He didn’t pay Walli money], where the scope of negation is ambiguous, speakers use intonation to decide among the possible readings.

JENNIFER COLE, Massachusetts Institute of Technology

Harmony Within Linked Structures

Many harmony systems share the property of allowing spreading of the harmonic feature / only when trigger and target are similarly specified [aG], for some contextual feature C. One well-known example of this type is Yokuts Round Harmony, which spreads [+round] from [∅high] to [∅high] vowels. One way to represent such systems, using the formalism of Autosegmental Phonology, is to allow harmonic spreading of / only when both trigger and target are linked to a single contextual feature [aG], as in (i). This analysis makes the prediction that F Harmony will be blocked whenever a segment specified as [aG] intervenes between trigger and target. The presence of an intervening [aG] segment will prevent the trigger and target from multiply linking to [aG] without creating association lines. Note that the alternative representation in (ii) fails to make this prediction.

\[
\begin{align*}
(i) & \quad \text{Ọ - G - x} \\
(ii) & \quad \text{Ọ - G - x}
\end{align*}
\]

In fact in Yokuts, we can observe that [∅high] segments block harmony, and not [∅round] segments. I show that Menomini Height Harmony is another example of this sort. Height Harmony spreads [∅high] from /u,i/ onto the underlying mid vowels /e,ɛ/, and it is blocked by the [∅tense] vowel /i/. I suggest that Height Harmony follows the collapse of adjacent, identical [∅tense] features, and that it is parasitic on structures multiply linked to [∅tense], thus explaining the blocking behavior of /i/. I argue that the Linked Structure analysis of harmony is more principled and provides greater explanation than analyses relying on filters to account for the blocking behavior of opaque segments. The linked structure condition on harmony is also taken as evidence in favor of analyzing harmony as a spread rule rather than a copy rule.

SHERRI L. CONDON, San Diego State University

Abstractness and Recursion in a Feature-based Theory of Phrase Structure

A theory of phrase structure that avoids several problems associated with Jackendoff’s (1977) theory of phrase structure is presented. The bar notation is replaced by two features: [maximal] ([+max]) and [lexical] ([+lex]). These features permit distinctions among four types of nodes: [+max,-lex], [-max,-lex], [-max,+lex] and [+max,+lex]. A sample structure is given in (1).

\[
\begin{align*}
D & \quad \text{[max,+lex]} \\
N & \quad \text{[max,-lex]} \\
& \quad \text{[max,+lex]} \\
& \quad \text{[max,-lex]} \\
\end{align*}
\]

A few simple well-formedness conditions guarantee that the appropriate features are assigned to each node.

The feature-based theory avoids the problem of how many bars constitute a maximal category and eliminates the necessity of abstract structures in which nodes donate a single branch. At the same time, it preserves the possibility of formulating cross-categorial generalizations that associate constituents with 3 distinct bar levels. It also makes accurate predictions about recursion within phrasal constituents.
Subject-Subject Asymmetries and ECP in Moroccan Arabic

The Empty Category Principle (ECP) predicts that subject-object asymmetries in the distribution of empty categories result from structural properties of the subject and object, not from other properties that might be associated with those grammatical relations. Our data from Moroccan Arabic support this hypothesis because we find asymmetries in the distribution of empty categories in the subject constituent depending on whether SV or VS word order is used. We account for the contrasts in (1) by observing that an empty quantifier specifies the bare subject noun in (1c,d).

(1) a. ma-za hatta raml
   b. hatta raml ma-za
   NEG-case no man
   "No man case."

(1a, b) demonstrate that both SV and VS orders are permitted when the quantifier is not empty. Following Kayne (1985), we assume that the negation element, ma, is the antecedent of the empty quantifier in (1c,d). Then the empty quantifier is not properly governed in (1d) because ma is not contained within a g-projection of the noun that governs it. But, due to the incorporation of canonical government configuration in Kayne's (1983) definition of the ECP, ma is contained within a g-projection of the noun that governs the empty quantifier in (1c), so the latter is properly governed.

DAVID P. CORINA, University of California-San Diego & Salk Institute

Segmental Analysis of Temporal and Distributional Inflections in ASL

The theory of autosegmental representation (Goldsmith 1976, McCarthy 1983) has been instrumental in accounting for a wide variety of spoken language phenomena. The analysis of the phonological structure of American Sign Language provides further support for this theory. Recent work in ASL phonology suggests that a sign is best described as a linear arrangement of movement and hold segments, to which articulatory bundles attach autosegmentally (Liddell & Johnson 1985). While a segmental analysis of signs offers many insights to the phonological structure of ASL (see for example Liddell & Johnson 1985), a fundamental problem arises in assigning a segmental representation to the more complex inflectional sign forms. In particular, the representation of temporal and distributional inflections and their interactions, realized as "spatially nested forms" (Klima & Bellugi 1979) have, as of yet, to be unified in a segmental framework. This paper approaches the problem through an investigation of ASL handshape change and hand internal movement which provides clues to the underlying structure of these inflections. The analysis offered suggests that the temporal inflections (continuative and durational) and the distributional inflections (multiple and exhaustive) are best analyzed as syllabic inflectional frames consisting of a movement segment partially specified for articulatory features. Root forms of verbs or previously inflected forms (in the case of nested inflections) serve as input. The data support this analysis and call into question the characterization of temporal inflections in the segmental "hand tire" model proposed by Sandler (1986).

GEOFFREY R. COULTER, University of Illinois

On the Modality Independence of Sentential Stress

While both emphatic stress and word-level accent patterns have recently been shown to exist in the American signed language of the Deaf, the existence of sentential stress patterns has not yet been adequately demonstrated. Previous work, unfortunately, has failed to distinguish sentential stress from prosodic differences which are due to emphatic stress and lexical variation. To isolate sentential stress, a variety of signs were placed in different sentence frames, in tonic and non-tonic positions. The resulting sentences were articulated by native signers, and videotaped for detailed phonetic analysis. Signs in tonic position were found to be phonetically similar (in size and duration) to emphatically stressed signs. Also, patterns of hand and body position which change gradually over the course of a phrase were found to peak at the tonic position. This strongly suggests that the existence of sentential stress patterns and 'intonation' peaks is not dependent on the spoken modality (except with respect to certain details of their phonetic realization), but on more general features of language structure.

WILLIAM CROFT, University of Michigan

Surface Subject Choice in Mental Verbs

It has long been known that there is grammatical and typological variation as to whether or not the Experiencer role of mental verbs—verbs of emotion, cognition and perception—appears as a surface subject. Research in this area has largely been devoted to demonstrating to what extent surface nonsubject Experiencers have other subject properties. However, there has been little if any study of possible factors determining surface subject choice in mental verbs. I argue that the primary factor involved is the internal semantic structure of the verb, namely its inherent aspect (Vendler 1967) and causal structure. For example, the well-known pair like and please are considered to be semantically identical. Various tests demonstrate that like is a
simple stative predicate whereas *please* is a complex predicate analyzable as Cause(x, Become(Like(y,x))). Causative-inchoative mental verbs like *please* consistently have nonsubject Experiencers. On the other hand, process verbs describing mental activities such as *worry* or *think* consistently have subject Experiencers. A survey of mental verbs in Russian, Lakhota and Nahuatl support the generalizations for causative-inchoative and process (activity) verbs. I will propose a semantic explanation for the consistent syntactic behavior in these cases and for the variation remaining in surface subject choice for stative mental verbs.

SUSANNA CUMMINGS, University of California-Los Angeles

**Variation and Syntactic Function in Indonesian**

How far it is safe to generalize about the discourse function of a particular syntactic construction in a highly variable code? Indonesian, or Bahasa Indonesia, is an old language (Malay) with a new sociolinguistic status as the standard national language of a developing country. The vast majority of its speakers learn the language in school, as native speakers of a non-Malay "local language"; others are native speakers of immigrant Malay dialects. This diversity in mother tongue naturally results in dialectal diversity within the Indonesian language. While dialectal differences at the phonological, lexical, and morphological levels are widely recognized, syntactic and functional differences are less well established. This paper concerns itself with the following questions: is there inter-speaker variation in the function of a particular syntactic alternation? If so, is the variation conditioned by the speaker's first language? The syntactic alternation examined here is that between argument-predicate and predicate-argument constituent order in the sentence. This alternation is conditioned by aspects of the discourse status of the elements involved. In this paper I will examine the literary Indonesian of contemporary novels by six authors of various linguistic backgrounds (Javanese-speaking from Java, Malay-speaking from Sumatra, and Batak-speaking from Sumatra) in order to ascertain whether their use of constituent order alternation can be subsumed under one generalization. If so, this generalization can presumably be extended to standard written Indonesian; if not, we must conclude that any generalizations which assume the uniformity of Bahasa Indonesia are premature.

AMY DAHLSTROM, Smithsonian Institution

**Nominal Arguments and Pronominal Inflections in Fox**

Fox (Algonquian) is a non-configuration language which fits neither the pronominal-argument nor the nominal-argument type proposed by Jelinek (1985 ISA paper). All Fox verbs are inflected for subject (and object, if transitive), while NPs are uninflected for Fox shows a partial resemblance to the pronominal-argument type in that ordinary pronominal reference is expressed by the inflectional morphology on the verb; independent personal pronouns are reserved for contrastive focus or signalling a new topic. The pronominal-argument model, though, would predict that in all instances cross-referencing inflection functions pronominally to satisfy the verb's subcategorization requirements, while any NPs present bear nonsubcategorized grammatical functions, e.g. topic. However, such an analysis cannot be given for Fox: some cross-referenced NPs must be analyzed as subjects or objects themselves. In these cases the cross-referencing inflection is merely agreement, and not pronominal. This paper presents tests which distinguish subject and object NPs from topic and focus NPs in Fox, with respect to both grammatical functions and constituent structure position inside or outside the clause. The evidence includes position of enclitics, scope of adverbs and quantifiers, and bounding restrictions on the pieces of discontinuous constituents, and supports the classification of Fox as belonging to a syntactic type distinct from both the nominal-argument and pronominal-argument types.

MARY DALRYMPLE, Stanford University
SMITA JOSHI, Stanford University

**Relative Clause Linking in Marathi**

We provide an analysis of the phenomenon in Marathi known as multiple relativization, described in Andrews 1975. Marathi relative clauses appear either before or after the main clause and may contain more than one relative pronoun (which man saw which woman[he loves her]). In Head-Driven Phrase Structure Grammar, phenomena such as this are analyzed in terms of the Binding Inheritance Principle, a technique that is reminiscent of the Foot Feature Principle of Generalized Phrase Structure Grammar as well as being similar in spirit to the quantifier storage technique developed in Cooper 1975. Features are introduced by the relative pronouns and by the pronouns in the main clause that are construed as coreferent with them (referred to as "co-relative pronouns"); these features are passed up the tree. At the top of the tree, a requirement is imposed that the set of features representing the relative pronouns in the relative clause be equal to the set of features representing the co-relative pronouns in the main clause, and the matrices containing the features are unified to enforce coreference.

We also treat an interesting set of counterexamples to the usual situation of there being one co-relative pronoun in the main clause for each relative pronoun. Relative pronouns may remain unlinked to co-relative pronouns in certain configurations: [which man’s which son’s which homework I had done,[it was difficult]) (where ‘which homework’ is linked to the co-relative ‘it’ but the other relative pronouns remain unlinked). These exceptions are handled by restricting the feature-passing process so that either the entire set or an appropriate subset of the relative pronoun features is allowed to be passed up the tree.
Toward the Linguistic Study of Writing: Aramaic Orthographies

The study of writing has almost exclusively been concerned with external characteristics of scripts: changes in the shapes of characters with time or borrowing; or the structure of writing systems considered hermetically (i.e., the simplistic but popular typology logogram—syllabogram—alphabet). This has led to the neglect of the equally important question of the "fit" of an orthography to the language it represents -- function has been overlooked for form. For instance, a syllabary serves Japanese exceptionally well because of the regular CV(N) canonical shape, but would be virtually unworkable for English; while the logophonic system of English would be needlessly complex for most languages.

The 3000 years of Aramaic, attested in various and diverse writing systems, exhibit numerous examples of idiosyncratic fits to linguistic features: at the early stage the consonantal script conforms to the supposed lesser importance of vowels in Semitic grammar. Vowels are more regularly notated as Indo-European loanwords become important. Morphological structure can be indicated with very little uncertainty. Graphic conventions develop that would be inappropriate to other, even closely related, languages.

The examples illustrate the plea for an organic grammatology, prerequisite to theorizing.

WILLIAM DAVIES, University of Iowa

KiMuru Causatives and Monoclusal Union

In her discussion of Kĩmuru causatives, Hodges (1977) proposes a hierarchy of (direct) objects, claiming that the facts counterexemplify various principles of Perlmutter and Postal's (1977, 1983) relational grammar. Hodges argues for a hierarchy of Applied Object Lower Direct Object Lower Subject (LS) partially based on the fact that, in competing for the two available object positions allowed in any Kĩmuru clause, the causee (LS) in the causative of a transitive applied verb cannot be realized, as in:

(1) Hiaturi thiire sukulu yuku.
    AS=buy=CAUS=APP school book
    'He caused the book to be bought for the school.'
    *He caused the school to buy the book for someone.'

This paper argues that a hierarchy of DO's is unnecessary. In particular, I show that the absence of the causee in (1) is precisely what is predicted under the monoclausal analysis of Union proposed by Davies and Rosen (1986). Crucially, their formulation of RG principles in terms of "arc ends" includes principles (needed independently of Bantu) which ensure that only subjects may "disappear" in Union. The prediction with respect to Kĩmuru constitutes an argument for the Davies and Rosen type of analysis.

STUART DAVIS, University of Michigan

Stress Conflation: Evidence from Sooke

Sooke, a Salish language, has a type of stress system that has gone undiscussed in the literature on metrical phonology. In Sooke, main stress falls on the leftmost syllable with a full vowel. If the word has no such syllable it falls on the leftmost light syllable with a full vowel. If the word does not have full vowels stress falls on the leftmost heavy syllable with a reduced vowel; otherwise, it falls on the first syllable. This paper concerns the analysis of Sooke stress in two current theories of stress; Halle & Vergnaud 1986 (hereafter HV) and Hammond 1986. HV represent stress by metrical grids that incorporate constituent structure. In their system Sooke stress can be handled by assigning a line 3 grid-mark to heavy syllables with full vowels, a line 2 mark to light syllables with full vowels, and a line 1 mark to heavy syllables with reduced vowels. Crucially, stress conflation (a mechanism HV propose to eliminate grid marks over syllables that otherwise would surface with secondary stress) would apply and a left-headed unbounded constituent then built. In Hammond's theory (where stress is represented by tree structures that lack strong-weak labelling but with marks essentially equivalent to grid ticks) Sooke stress would be handled by building a binary obligatory branching left-headed foot. However, some additional mechanism would still be needed to determine over what syllable the foot would be placed. Thus, Sooke provides evidence for a theory of stress that posits conflation.
Developing Recursion in Young ESL Learners

Goldin-Meadow (1982) shows that recursion, a resilient property of language, is even acquired in the partly formed grammars of children deprived of linguistic input. Tyack and Gottsleben's (1986) analysis of recursive constructions suggests a gradual acquisition of functional-grammatical categories, including built-in rules such as infinitive and direct question. My earlier work suggests the following grammatical categories of recursion: coordination (and), complement (what, how, where), causal (because), temporal (after, before), conditional (when, if), and relative clause (that, which, who) constructions.

This paper presents initial research on children who, in contrast to having been deprived of linguistic input, have been given added input in the form of a second language: namely, English. My analysis of English recursive constructions in a Polish, a Bengali, a Cantonese, and a Danish speaking preschooler indicates that (1) ESL speakers acquire recursive grammatical categories in the same order as natives; but initially without connectives or with uncommon phonetic shape, (2) ESL speakers use recursive constructions whether or not they use complete intransitive, i.e. tense marker, constructions. Both indications suggest not only the resilience of recursion, but also its importance to pragmatic communication and to cognitive development.

B. ELAN DRESHER, University of Toronto
ADITI LAMHRI, Max Planck Institut für Psycholinguistik

On the Metrical Equivalence of H and L L in Germanic

In early Old English (OE), high vowels in an open syllable delete immediately after a heavy syllable (H), or after two light syllables (L L): hence, wordu > word, werodu > werud. To account for the equivalence of H and L L, Keuser and O'Neil (1985) propose that for a right-headed, quantity-sensitive feet: high vowels delete if they immediately follow a foot. This analysis, however, requires an extreme departure from the prevailing OE metrical pattern, and is otherwise unmotivated. In fact, the H L pattern is not eccentric or even peculiar to OE, but can be found throughout Germanic (Prokosch 1936, Kuryłowicz 1970). To account for high vowels restricted to a higher metrical level in other areas of the phonology, such as Sievers's Law and Gemination, and in meter (as 'resolution'). Following Prokosch and Kuryłowicz, we propose that early Germanic requires an accentual syllable group to contain at least two morae. This requirement is satisfied by the first syllable if it is heavy, and by the first two syllables taken together if the first is light. This syllable group, or sub-foot, forms the dominant branch of a binary foot; high vowels subject to deletion are now metrically weak, as expected. This was the situation in early Germanic. We will argue that the sub-foot became increasingly opaque in the various Germanic languages, resulting eventually in reanalyses of the system whereby the two-mora requirement was retained, but at the syllable level. Developments such as open syllable lengthening are consequences of these reanalyses.

MARK DURIE, University of California-Santa Cruz

Grammatical Relations in Acehnese

Acehnese is active in other respects: [i] Some morpho-syntactic processes, including control, inchoative verb serialization, imperative addresser selection, and verb derivation, can be accurately formulated in terms of A. [ii] Other morpho-syntactic processes, including possessor raising and control in resultative verb serialization, can be formulated in terms of U. [iii] Reflexivization and verb doubling refer to both A and U, distinguishing them. [iv] Fronting, raising, relativization, and topic chaining treat A and U alike, distinguishing them from peripheral constituents such as locative PPs.

No significant morpho-syntactic properties are found which must be formulated ACCUSATIVELY (identifying the transitive and intransitive subject) or ERGATIVELY.
The Development of Social Constraints in Sound Change

Evidence from adolescent speech in the Detroit suburban area shows that the social conditioning of variation in each of the 5 vowel changes comprising the Northern Cities Chain Shift alters gradually and systematically with the age of the change. Over time, as changes spread outward from the urban center and become established in the suburban area, they lose their clear urban identification and become associated with local differences among suburban groups. This change accounts for differences in sexual and social category constraints between concurrent variables within one community.

Psycholinguistic Evidence for Morp hemic Parsing During Word Recognition

Only recently have psycholinguistic models of the lexicon recognized the potential importance of morphological structure to word recognition. We argue that lexical processing and representation are interdependent — morphemic structure can affect the nature of lexical access, and access mechanisms may argue for a particular morphemic representation. An auditory lexical decision task was used to investigate whether bimorphic words take longer to recognize than monomorphic words. 12 each of prefixed, suffixed (inflected and derived), pseudoprefixed (e.g. invite), pseudosuffixed (temper), and control monomorphic (rabbit) words and 72 nonce words were presented to 20 subjects. The results indicate that when reaction time is measured from the uniqueness point (Barwin-Hillman, 1960) suffixed words take longer to recognize than monomorphic words. This finding suggests that suffixes are recognized separately and on-line during lexical access. Lexical decision times for prefixed words were faster than for monomorphic words, suggesting that subjects recognized the prefix prior to hearing the entire word and could use this knowledge to bias a "word" response. Finally, there was no evidence that parsing was misled by pseudoprefixed words. An elaboration of the cohort model of lexical access is proposed in which only stems are contained in the cohort set used for recognition. Suffixes are recognized separately and may be stored in a distinct lexical component. Prefixes are identified as such during the recognition process, but the data do not allow us to choose between a prefix-stripping model and a model which stores prefixed words as units with their morphemic structure marked.

Indirect binding as a Constraint

This paper considers the general phenomenon that [Haik 84] calls "indirect binding," also treated by [Kamp 81], [Heim 82], and many others. Haik presents indirect binding as a mechanism whereby quantifiers may bind pronouns outside their normal binding scopes. This paper argues that indirect binding is more properly viewed as a constraint. It does this within a theory that explicitly distinguishes binding scopes from dependency scopes. In contrast with [Kamp 81] and [Heim 82], binding constituents receive a fairly classical Russellian treatment. Pronouns are treated uniformly as binders, in common with [Kamp 81]. In the context of a determiner phrase theory similar to that of [Aberny 80] or [Kuroda 85], we argue that the heads of binding DPs determine their binding scopes at Satstructure. Determiners behave idiosyncratically in this regard. That a computer can bind it in every teacher that knows a student that owns a computer covers it reflects the binding scope associated with a. That a computer cannot bind it in every teacher that knows every student that owns a computer covers it (on a reading where a computer is in the dependency scope of every student) reflects the indirect binding constraint. Informally, this constraint states that a pronoun must lie within the binding scopes not only of its direct binder, but also of all its indirect binders. In the second example, every student indirectly binds it, but does not c-command ([Asou and Sportiche 82]) it. It is therefore not in the binding scope of every student, and the relevant reading is ruled out. We show how indirect binding may arise from Skolem dependency, "relative dependency," or "modal dependency," and apply the indirect binding constraint to examples of "crossing coreference" and other well-known data. We also sketch an account of a version of LF where the Spec[N] position, otherwise unoccupied in the determiner phrase theory, is the landing site for explicit variables and for explicit images of Skolem, relative, and modal functions. The indirect binding constraint then applies to LF as a simple syntactic condition.
Turkish Passives and Agent Defocusing

Many functional approaches to passives (e.g. Creider 1979, Givon 1979, Williams 1977) assume that the basic discourse pragmatic function of passivization is to topicalize a non-agent nominal. This assumption has recently been questioned by Shibatani (1985), who argues that the fundamental function of passives is the defocusing/mention of agents. In this paper I present further data in favor of Shibatani's hypothesis and argue that this approach can account for a number of phenomena in Turkish. Most notably, it can explain, given a basic SOV structure like (1), why we can have both topicalization of the object NP (2) and passivization (3). Pragmatic functions of (2) and (3) were thought to be overlapping and thus presenting a linguistic puzzle from a functional point of view (e.g. Eru 1983).

(1) bıtge-yi oku-du 'The Minister read the budget'
   bıtge-yi minıster read-past
   (2) bıtge-yi bakan oku-du same gloss as in (1)
   bııge (bakan tarafından) oku-n-du
   budget minister by read-past
   (3) The budget was read by the Minister
   It can also explain why in sentences without agents passivization is not possible but topicalization is still allowed.

THOMAS ERNST, Ohio State University

The Role of PP in Specifying Chinese Word Order Parameters

Recent analyses have attempted to account for word order in Chinese by specifying values for three parameters: (1) head-initial or head-final constituents; (2) direction of Case assignment; and (3) direction of 6-role assignment. It seems to be agreed that Chinese is head final at DS, but there is disagreement about (2) and (3). In this paper I provide evidence that Chinese assigns both Case and 6-roles to the right, and therefore support the approach of Travis (1984) over that of A. Li (1985).

Li's analysis, positing 6-assignment to the left but Case-marking to the right, makes a major prediction that PP's may not occur to the right of the verb. To uphold this, she must argue that postverbal phrases with gēi 'for/to', dào 'to', and zài 'at' (such as (jí) gēi tā 'send to him/her') are either serial VP's, or else gēi/dào/zài are re-analyzed as part of the verb, leaving just an NP. However, I argue that (a) these words do not pattern like main verbs (allowing neither the premodifiers nor the complements one would expect of real verbs); and that (b) the distribution of duration/frequency adverbials, and of empty categories (which normally occur after verbs but not after gēi/dào/zài), makes the reanalysis option dubious. Thus gēi/dào/zài phrases must be analyzed as PP's. Since there is good evidence that they are subclassified by the verb (cf. Travis), it seems that genuine, 6-marked PP's do occur postverbally, and positing 6-assignment to the right is indicated.

DOMINIQUE ESTIVAL, University of Pennsylvania

The Development of Indirect Passives in English

The existence of passives of indirect objects in Modern English (1) is related to the development of double object constructions (2).

(1) John was given a book.
(2) We gave John a book.

In this paper, I present evidence for the hypothesis that the delay between the collapse of the case marking system for nouns and that for pronouns allowed the reanalysis of a former dative object (an underlying PP) into an accusative object (underlyingly an NP). In Old English, only a small set of ditransitive verbs could take a prepositional indirect object instead of a bare dative; by Early Middle English, even before the case system had collapsed, we find prepositional indirect objects with the other verbs. However, pronominal and nominal indirect objects present a sharp contrast: while most of the pronominal indirect objects were still bare datives, nominal indirect objects were almost always introduced by a preposition. When pronouns also collapsed accusative and dative cases, the alternation between bare and prepositional indirect objects could be reinterpreted as being between NP and PP objects.
English Suffixes attach to stems and to suffixed stems; however, few actual combinations of suffixes arise — much fewer than are allowed by the level-ordering approach to suffix combination of Lexical Phonology/Morphology (Deriving from D. Siegel). This might suggest that suffixes are not attached by rule to already suffixed forms, but rather that suffix-suffix combinations are stored as non-compositional compound suffixes. Thus suffixation is only to stems. In this paper I suggest otherwise. Some suffix-suffix pairs are clearly ruled out by selectional restrictions (e.g. for-part-of-speech). Building on this, I show that we can allow suffixation to apply to suffixed words, constrained only by selectional restrictions (for phonological structure, semantics, etc.). This means that English does not have a level-ordered morphology. The practice of level-ordering the English morphology has ruled out a large number of non-occurring suffix combinations; I propose that the work done by level-ordering is instead mainly accomplished by selection for a feature $\mathfrak{f}$ (linked to some extent to the property 'latinate'), which is associated with a subset of the English stems and affixes. Selection for $\mathfrak{f}$ is a trigger for the operation of word-level phonological rules. This can be viewed as a variant of the Visibility mechanism developed in Government-Binding Theory; a segment-suffix pair is available as input to the word-level phonological rules (i.e. visible to this rule component) only if the suffix selects for $\mathfrak{f}$ on the segment.

ALICE FABER, University of Florida

A Sporadic change Involving Semitic Sibilants

Comparative work supports reconstruction of four voiceless non-emphatic sibilants for Proto-Semitic. These are usually labeled $\#^{\mathfrak{s}}, \#^{\mathfrak{s}}$, $\#^{\mathfrak{ts}}$, and $\#^{\mathfrak{th}}$, but a consensus is emerging that $\#^{s}$, $\#^{\mathfrak{s}}$, $\#^{\mathfrak{ts}}$, and $\#^{\mathfrak{th}}$ are more accurate values. In this paper I discuss several instances in which a PS lexeme occurs in a descendent language with a reflex of the "wrong" sibilant. For example, $\#^{s}r(s)$ 'root' and $\#^{s}ms$ 'sun' occur in Arabic, some South Arabian languages and Geez as if descendants of $\#^{\mathfrak{ts}}r$ks and $\#^{\mathfrak{ts}}ms$. This change is often viewed as dissimilation of the initial sibilants, but it can better be understood as assimilation of the initial sibilant to the following resonant: $\#^{s}$, when labialized under influence of following /m/ or /r/, was perceived instead as the more hushing $\mathfrak{[dist]}$ [s$. My analysis is supported by the non-etymological $\#^{s}$ in single sibilant reflexes of $\#^{sr}$ and in reflexes of $\#^{s}m$ 'buy, trade,' as well as by the statistically elevated number of PS roots in which $\#^{r}$ and $\#^{r}$ coccur. Further support comes from the distribution of non-etymological sibilants. They are found only in languages in which reflexes of $\#^{s}$ were maintained as a hushing sibilant distinct from reflexes of $\#^{s}$ (Arabic /$\#^{s}$/, Modern SA /$\#^{s}$/, Geez and ancient SA /$\#^{r}$/ or /$\#^{r}$/) and in languages in which these merged with reflexes of $\#^{ts}$ as /$\#^{s}$/ (Hebrew and Aramaic). A result of this analysis is that PS/Egyptian $\#^{sr}$ 'food grain' can (pace Brehet 1979) be linked with Proto-Cushitic $\#^{sr}$ 'grain,' providing greater linguistic support for the antiquity of a partially grain-based economy in Northeast Africa.

SARAH M.B. FAGAN, University of Maryland

Reflexives, Vocation and Transitivity

German, like Russian, has both "short" and "long" reflexive forms: German sich/sich selbst, Russian $\#^{s}ja/\#^{s}ja$. The "short" reflexive in German, however, does not behave like its Russian counterpart. In particular, sich sometimes appears to be associated with volitionality, whereas $\#^{s}ja$ is often associated with the absence of volition: 1. Er stürzte sich aus dem Fenster. 2. Er stürzte aus dem Fenster. 3. On lišil če žizini. 4. On lišil če žizini.

An analysis of German and Russian reflexives is proposed that accounts for this difference in behavior. First, and contrary to the claims of some investigators, sich is shown to be an independent word, rather than a verbal affix or a clitic like its Romance counterparts. Russian $\#^{s}ja$, on the other hand, is best treated as a verbal affix. Second, the relationship between volitionality and reflexives is explained on the basis of transitivity: true object reflexives are associated with volition, whereas reflexives that are verbal morphology are not. The analysis thus provides support for the inclusion of volitionality as a parameter of transitivity, as proposed by Hopper and Thompson (1980).
DANIEL P. FLICKINGER, Stanford University & Hewitt-Packard Labs (SUN AFT: D)

Heads and Adjuncts: The Right to Select

In much current work the lexicon is not only the repository of idiosyncratic properties of language, but also of regular syntactic dependencies once encoded in phrase structure rules. The syntactic dependencies holding between adjuncts (such as PP's or relative clauses) and the heads they modify provide a clear example of the virtues of lexical representation, but raise the interesting question of whether the head (eg. the noun in a noun phrase) selects for the adjunct (eg. a relative clause), or vice versa. To place the question in context, I distinguish three properties one might expect to be definitional for the notion "head" (semantic functor, bulk of properties shared with the mother in a phrase, and ability to impose syntactic constraints on sisters in a phrase) and argue that only the second of these is always associated with heads.

Working within a lexically based framework, I show that heads must select for their adjuncts, and not vice versa, for two reasons: (1) a head can underspecify the type of its adjunct (eg. nouns can have a modifying predicative phrase), so each of the specific adjuncts permitted would have to redundantly specify the common head they can modify; and (2) in some adjuncts (such as "thatless" relative clauses) there is no specific lexical item which could carry the information about the head to be modified, making it impossible to provide an analysis without adding overly specific phrase structure rules.

JANE FRANK, Georgetown University (SUN AFT: A)

Marital Conflict: Interactional Discourse Analysis of a Conversational Argument

One of the more problematic aspects of sociolinguistic research is the challenge of capturing certain commonplace and naturally occurring conversations which--by their very nature--are elusive. This paper is intended as a contribution to an interactive discourse analysis approach to the study of such a conversation, a spontaneous conversational argument between spouses. In this paper, I will be analyzing one example of marital conflict to argue that there are linguistic strategies and structural features which appear to be characteristic of this form of discourse. I will be examining various features of the argument to contend that the participants' conversational styles and gender differences contributed to the expansion of the argument as a whole, and are related to-and may typify-the progressive stages or phases of this kind of intimate conversations' disagreement.

Specifically, I will be focusing on the frequency and use of particular discourse strategies to show how marked use of these strategies may not only typify speakers who share similar "high involvement" conversational styles (Tannen 1984), but also that they are employed and progressively modified within the structural and contextual framework provided by the argument. I will also address the role played by gender differences, to demonstrate that participants' discourse strategies were more reflective of their intent to maximize outcomes, or the interaction of these two phenomena, than their differences in gender. Finally, I will provide some preliminary conclusions regarding the strategic use of discourse devices, and their relationship to the progression of conflict within the larger structural framework of the argument, as were suggested by the data.

STEVEN FRAMES, University of Maryland (SUN AFT: D)

Theta-role Assignments in NPs and VPs

This paper treats the problem of how arguments are associated with theta-roles. Two kinds of mechanism are proposed: a complement to a node X receives its theta-role syntactically and an adjunct receives it lexically. A theta-role assigner X contains a feature matrix for the particular theta-role it assigns (cf. Stowell's "theta-grid"). Syntactic theta-role assignment involves coindexing an adjacent sister of X to that feature matrix, and lexical theta-role assignment involves associating arguments of X with compatible roles in X's lexical entry. Each node X can thus have at most one true complement, with which it is coindexed.

This model has many interesting syntactic consequences. For VPs, analyzing syntactic theta-role assignment as coindexation can be used to account for apparent structural restrictions on case assignment and movement. For NPs, it constrains with standard conditions on representations to rule out predicative and movement in NPs, explaining contrasts such as John's arriving dead/*John's arrival dead, America's discovery/ *America's discovering, John's picture/*physics' student, and a portrait by Wyeth of Helga/*a teacher from France of physics.
The X-bar Theory and the Comparative Syntax of English and Japanese

In this presentation, I will propose a new system of category projection where Lexical categories (N, V, etc.) and Nonlexical (or "functional") categories (COMP, INFL, etc.) project in different ways, i.e. Lexical categories project up to a single-bar level, allowing free recursion at that level, whereas Functional categories can project up to a double-bar level, taking a unique specifier (SPEC) via agreement relation between a functional head and its SPEC. It then becomes possible to characterize SPECs as elements that 'close off' category projections, i.e. once a SPEC shows up, nothing can be attached further to a given category and its projection is 'closed.' Only Functional heads can have SPECs.

It will be shown that based on this new conception of the X-bar theory, a cluster of distinguishing properties between English and Japanese immediately follows, assuming a single parameter: the existence of SPEC is parametrized; English has SPECs, Japanese does not. Thus, English has syntactic wh-movement moving a wh element into a SPEC of COMP, whereas Japanese lacks syntactic wh-movement just because there is no place to move a wh element to. English lacks a "multiple subject" construction, since the 'subject' in this language is in the SPEC of IP position at S-structure, while Japanese has a "multiple subject" construction because the 'subject' in Japanese stands within a projection of V as an iterable modifier. The same explanation holds for similar contrasts in NPs as well (e.g. 'John's yesterday's lecture vs. John-no kinoo-no koogi 'John's yesterday's lecture').

DONNA B. GERDTS, State University of New York-Buffalo

The Coast Salish Passive: Morphology Interfering with Syntax

Davis (1980) and Gerdts (1981) point out that in two Coast Salish languages the passive construction involves a nominal which tests syntactically to be the final subject but, in the case of pronominals, surfaces as an objective suffix. Here I provide an explanation for this phenomenon which correctly predicts two types of Coast Salish languages--those with passive subjects (e.g., Sliammon, Makah, Sechelt) and those with passive subjects (e.g., Straits, Squaxin, and Lushootseed). Crucially, the Coast Salish passive is formed from a transitive stem; transitivity is overtly marked in Coast Salish. In the former group of languages--but not the latter--the transitive suffixes have fused with the objective suffixes making it impossible to mark transitivity without also marking the person and number of the object. The morphological requirements of stem formation take priority over the syntax thus interfering with the syntactic conditioning of case.

HELEN GOODLUCK, University of Wisconsin-Madison & University of Ottawa

DAWN BEEHRE, University of Wisconsin-Madison

Thematic Roles and Children's Grammar of Control

This paper will report results of an act-out study of children's interpretation of controlled positions in subcategorized complements (toll-complement, purpose clauses) and non-subcategorized complements (temporal adjuncts). Results from this experiment to date and from previous studies show children aged 4-5 have not yet mastered the rule for control of the subject position of adjuncts, which is controlled in the adult grammar by the grammatical relation subject (or external argument) of the main clause. We will argue children use thematic roles (agent, patient, etc.) in interpreting the subject of adjuncts, and show that the particular role selected may vary (e.g. there may be a consistent choice of either Fred or Bill as controller in both sentences such as "Bill hit Fred after jumping over the fence" and "Fred was hit by Bill after jumping over the fence"; either pattern is contrary to the adult interpretation for one of the two sentences). These findings can be interpreted as evidence for the development of a general reliance on thematic rather than grammatical roles in the preschool and early school years. Previous structural accounts of errors with adjuncts and limits on overgeneralization of rules for subcategorized complements will be discussed.
The Generalization of Wackernagel’s Law

E. Kaisse, in Connected Speech (1986:82ff.), notes that there is a systematic exception to the observation that cross-linguistically clitics cliticize to some periphery of their constituent of origin in that certain (e.g., pronominal) clitics originating in the VP may be placed in sentence-second position in languages displaying Wackernagel’s Law. She goes on to note that, to her knowledge, “the only languages that place nonsentential clitics at second position are those that also have sentential clitics.” Kaisse explains this correspondence by hypothesizing that a “natural sort of generalization” of Wackernagel’s Law has taken place in these languages.

In this paper I will demonstrate that an examination of chronologically layered material from Vedic Sanskrit reveals a gradual generalization of Wackernagel’s Law of precisely the sort described by Kaisse. In addition, I will discuss evidence which may indicate that in the Indo-European proto-language itself, Wackernagel’s Law held only for sentential clitics, the extension to pronominal clitics being an innovation present in a number of daughter languages.

Michael Hammond, University of Wisconsin-Milwaukee

Accent in Amharic

Based on the constituent-boundedness of stress shifts, this paper argues that stress in Amharic—a longstanding problem—is best analyzed in terms of tree-based metrical theory, rather than a grid-based theory. Spectrograms confirm that stress in Amharic occurs on the second syllable, e.g. የንሃReviewed 'horse'. ከስማ 'pig'. One way to account for this in terms of tree-based metrical theory would be to build a single right-headed foot on the word's left edge. This produces the structure patterns required and assigns the following constituency: የንሃ. ከስማ. This is confirmed by the negative prefix እ-'. Adding እ- does not affect the stress pattern of a word ከስማ 'pig', ምስማ 'pig'. This is the simplest analysis of this is that እ- is extrametrical, i.e. invisible to the footing rule. By the internal logic of metrical theory, this requires the analysis above, as shown in detail in the paper. Thus, if a tree-based theory is right, in case the stressed vowel deletes, stress must shift within its constituent, i.e. one syllable to the left. Such a shift is occur when a word-final stem like ምስማ 'pig' is combined with the third person plural suffix -u. First stress is assigned ምስማ ምስማ. Vowel Elision applies, and, as predicted, stress shifts to the left: ምስማ 'they are here'. While this is an automatic consequence of tree-based constituency, it would be an unexplained fact under a grid-based analysis without constituency.

Jorge Hankamer, University of California-Santa Cruz

ADITI LAKHIRE, Max Planck Institut für Psycholinguistik

The Timing of Underlying and Derived Germinates

In autosegmental representation, the distinction between underlying germinates (autosegmental) and derived germinates (arising through morpheme concatenation) is expressed in different linking relations between the timing and melodic tiers (two timing units linked to a single melodic unit vs. two timing units each linked to its own melodic unit). If the timing tier truly represents timing, we would expect the two kinds of germinates to have the same length in a language that has both, since their representations on the timing tier are the same. We would further expect that a timing unit disconnected from the melody by a de-linking rule would have no effect on surface length. To test whether the timing tier representation reflects actual timing as measured instrumentally, we investigated underlying and derived germinates in Turkish and Bengali, e.g., (Turkish):

<table>
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<tr>
<th>C</th>
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<th>C</th>
<th>C</th>
<th>C</th>
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<tbody>
<tr>
<td>'h a k I' h a k I y o k k e n y o k k e n h a t t a h a t t a</td>
<td>'h a k I' h a k I y o k k e n y o k k e n h a t t a h a t t a</td>
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Underlying and derived germinates did not differ significantly in length. Length was also phonetically neutralized by preconsonantal degemination, so e.g., the geminate /b/ in Turkish h a t t a > h a t t a is the same length as the one in h a t t a > h a t t a. We conclude that the timing tier actually reflects the phonetic timing of consonant length, even where there is phonological neutralization. This contrasts with results on segmental neutralization (Dinnsen 1985).
Stress Shift and Syncope in Cyrenaican Bedouin Arabic

The metrical theory of Halle and Vergnaud (1985) implicitly predicts that stresses can "float" when the segmental material supporting them is removed. This makes possible a straightforward account of stress in Cyrenaican Bedouin Arabic (Mitchell 1960), which has resisted earlier attempts at generative analysis. Stress in Cyrenaican is assigned by rule, prior to the rules of syncope. I state the stress rule as follows: from left to right, form iambic quantity-sensitive feet, assigning main stress to the penultimate foot. In HV's theory, when syncope deletes a stressed vowel, stress migrates to an adjacent vowel in the same foot. This greatly obscures the underlying stress pattern:

(1) /kitibh/ → kit bih → kit b hh → kitibh

Such shifts have been noted before, and are predicted by other metrical theories. The novelty of Cyrenaican is that when both syncope rules are applicable, all the vowels of a foot are deleted. HV's theory predicts the outcome: the stress floats, ultimately lodging on the epenthetic vowel that resolves the consonant cluster.

(2) /yin.ṭṭilu/ → yin.ṭṭi l uu → yin.ṭṭi l uu → yin.ṭṭi l uu → yin.ṭṭi l uu → yin.ṭṭi l uu → yin.ṭṭi l uu

This analysis greatly simplifies the stress rule, and avoids the ordering paradoxes that arise in other frameworks.

LILITH M. HAYNES, University of Gesamthochschule, Essen

Register Variation in Short-Stories by Caribbean Women

Analyses of short-stories written by Caribbean men (Haynes 1984a, b, 1986), have shown that Standard English is primarily used for narrative passages, while dialogue is rendered in various registers which reflect the intricacies of the sociolinguistic settings being depicted. Using comparable data, this paper focuses upon twenty short-stories by Caribbean women, providing indices of register variation in narrative and dialogue. Particular attention is given to the syntax of questions - treating a hitherto neglected area of Caribbean language behaviour, and to the representation of sound change in initial vowels and final consonant clusters - expanding upon D'Costa's (1983) pioneering study of Louise Bennett's dialect poetry. Caribbean women emerge as more enterprising than their male colleagues in employing different registers to indicate versions of themselves and their personae - in narrative as well as dialogue, and in developing strategies of documenting this variation within the confines of typography.

LORIE HEGGIE, University of Southern California

The Range of Null Operators: Evidence from Cliffting

1a. It's John that Mary hit. 2a. It's by the lake that we ate lunch.
3. It's drunk that John sounds intelligent. 4. It's that Mary smokes that bothers me.

Given the above contrasts, this paper argues that categorial type is not an accurate indicator of whether a phrase may be clefted or not; rather, elements which have an external 0-role to assign, i.e., predicates, may never appear in cleft position. Assuming the structure in (5) (Chomsky, 1977) and the analysis of A-chains in Barss (1984) where a null operator in COMP must be identified by a c-commanding subjunctive lexical phrase. We demonstrate that A-Case chains which involve a null operator differ from A-Case chains that do not, as in (6) and (7):

5. it be [X , [OP, that [………….t………….]]]
6a. [How sick], is John t .
6b. *[It's [sick] [OP, that [John is t ]]]

Traces of null operators, unlike those of lexical operators, may not assign external 0-roles. Given that 0-role assignment occurs at D-structure, the null operator, being empty, has no 0-roles to assign. Later identification of the null operator by a lexical phrase will not alter this state of affairs as identification occurs after movement, at S-structure. This gives the following generalization: Null operators can never range over predicates, which, in turn, has numerous implications for topicalization, clitics, pseudoclefts, and free relatives.
RANDALL HENDRICK, University of North Carolina

Quantification in Modern Breton

This paper describes the interaction of quantification and negation within the grammar of Modern Breton. Modern Breton contains both VSO and SVO a-structures, as in (1).

(1) a. ne gar ket Yann Mona
    negative love-present negative Yann Mona
    'Yann doesn't love Mona'

b. Yann ne gar ket Mona

Yet in negatives, when a subject is a quantified expression such as dun ebe (no one), it can only appear in the SVO structure and the VSO structure is ungrammatical.

(2) a. den ebe ne gar Mona
    'no one loves Mona'

b. *ne gar den ebe Mona

The asymmetry apparent in (1)-(2) can be given a straightforward explanation if we assume that Breton has an SVO d-structure and if there is a rule of quantifier movement contrain by the Empty Category Principle that derives the level of Logical Form. This argument is significant because both of these assumptions have been contested in recent work on quantification in general and on the syntax of Breton.

KATHRYN A. HENNISS, Stanford University

Turkish Coordination: A Morphological or a Syntactic Operation?

Standard assumptions about the autonomy of syntax and morphology are challenged by the intriguing phenomenon of "suspended affixation" (Lewis 1967) in Turkish. A typical example is (1), where any of the indicated "suspending" may occur.

(i) Mustafa-nı at-(ler-(in-(l-1))) ve kedi-ler-in-i sev-er-im.
    Mustafa-GEN horse-PLU-POSS-ACC and cat-PLU-POSS-ACC love-AGR-AGR[1sg]
    "I love Mustafa's horses and cats"

Well-established tests (e.g. involving the domain of application of vowel harmony) establish clearly that the sequence kedi-ler-in-i, the rightmost conjunct, is a lexical unit, regardless of which affixes are suspended from the left conjunct. My analysis, based on the GPSG analysis presented in Sag et al. (1985), extends the domain of coordination rules to include sublexical structure, an extension independently motivated by such English examples as pre- and post-war Germany.

JEANHINE HEY, Middlebury College

X-Bar Morphology

This paper posits that the categorial level of morphological output is set independently for every language. Morphological units (words) need not bear 0-level categorial status; "syntactically formed" words may be X', or even X", as Sugimoto (1986) claims for Japanese.

It is argued that (at least) V' must be a word-level category in modern Persian, drawing data from two constructions: compound verbs and infinitival nominals. Verbal X-V compounds are analyzed as V (X' plus V). Non-compositional meaning and lexical conditioning argue that single words are involved. Further, these compounds can take the agitative suffix -zade, which phrasal V' cannot; pol'il-konzade, "asker," from the compound as-pil-kardan ("question-make", i.e. "ask"), but keth-kordarende, "bookseller," from phrasal "book" + "sell." But compound X-V sequences exhibit the same stress pattern as syntactic V'. Further, like V, they never include adverbs, instruments or agents. Third, pronominal clitics normally found only on phrases appear on X, a fact which requires no special treatment if this first element is a maximal category (which itself cannot take a complement unless it is a Case assigner due to lack of "visibility" in a sense similar to Fabb 1984).

Complex infinitives (xe-ne-ástan, "house+sit," "to stay home") fall precisely with lexical N after a determiner and carrying the plural suffix -ba. But high productivity and the occurrence of the direct object marker inside the construction strongly imply phrasal status; the occurrence of adverbs (dobra-sorsidan, "to ask again") suggests that V' may be involved.
The Sociology of Compliment Structures in English and Polish

Our paper addresses the encoding of compliments in English and Polish, with particular attention to male-female differences in expression. Based on a corpus of 1500+ tokens, we find that English females are more likely to express the compliment in personal terms (either 1st or 2nd person, e.g. "I like that tie", "You have a nice tie on"), especially if addressing another F whereas the vast bulk of male compliments are impersonal statements of approval ("That's a nice tie"). Polish speakers show a similar distinction except that 1st person compliments are avoided by all speakers. There are also differences in lexical choices and in acceptance/rejection rates by males and females: male-offered compliments are most likely accepted, esp. by a female hearer. These differences are compared with other findings in the male-female language area and set within recent discussions of status negotiation in speech.

A Formal Semantics for Motion Verbs and Directional Modifiers

ERHARD HINRICHs, Bolt Beranek Newman Laboratories

A paper analyzes motion verbs such as walk and alither as stage-level predicates in the sense of Carlson (1977). Carlson's ontology for NF reference is extended to the domain of events, and motion verbs are interpreted as denoting sets of processes which realize individual events. Processes and stages of individuals are taken to be spatio-temporal locations in the sense of Barwise/Perry (1983).

The resulting analysis can account correctly for the aspectual properties of motion verbs and for the semantic properties of directional modifiers involving prepositions such as toward and to. These prepositions are analyzed semantically in terms of the notion of a path first introduced by Cresswell (1977). By interpreting paths relative to the set of spatio-temporal locations it becomes possible to formally capture inferences such as the ones from (1) to (2) and from (1) to (3).

(1) Fangs alithered to the rock.
(2) Fangs alithered toward the rock.
(3) Fangs was at the rock.

Moreover, the analysis accounts for the fact that (1) is an accomplishment in the sense of Vendler (1967), while (2) is an activity.

Drawing Natural Logic Inferences

JAMES E. HOARD, Boeing Advanced Technology Center

A primary goal of natural language semantics is to explain how people draw inferences over natural language data (both individual sentences and discourses) in an immediate and direct way. For example, one would like to explain how it is that: 'John almost failed to climb Mt. Rainier' ⇒ 'John climbed Mt. Rainier', 'Max didn't manage to solve the problem until Kay gave him a few hints' ⇒ 'Max solved the problem', and 'Lincoln was assassinated in 1865' ⇒ 'Lincoln is not alive'. Given syntactic analyses of data into, say, GPSG structures, it is not at all obvious that translations of the structures into the intensional logic of Montague semantics or into the conventional logic advocated by Schubert and Pelletier yield logical forms from which interesting inferences can readily be drawn. The solution for drawing inferences proposed here utilizes generalized predicate-argument representations of logical form (open acyclic graphs and their linearizations) and a simple top-down, truth-conditional calculus over lexical items and the relations among them.
A Constraint on Governors in the West Germanic Verb Cluster

German and Dutch verb clusters show the peculiar phenomenon known as Infinitivus Pro Participle (IPP): A verb governed by (the equivalents of) have or be, which normally appears as a participle, has to show up as an infinitive when it itself governs another verb. This phenomenon, which has resisted attempts at an explanation so far, can be better understood as the consequence of a constraint on verbal governors, namely, that complex verbs (in the sense of Carlson and Roepert 1980, i.e. verbs which are either syntactically complex, such as verb–particle combinations, or morphologically derived) cannot govern other verbs in the verbal cluster—although in fact they may have extraposited infinitival complements. This constraint explains why particle-verbs, inherently reflexive verbs and morphologically-derived verbs cannot be governors in the verbal cluster. I argue that this constraint is preferable to adjacency requirements on verb raising.

The IPP can be seen as a means to escape the consequences of the above-mentioned constraint at the time when the prefix ge- (characteristic of past participles in German and Dutch) was still a derivational prefix. Exceptions to the IPP are explained away as later (17th/18th century) innovations following the reanalysis of ge- as an inflectional marker.

Word Order and Participant Deixis in Old English

"Exotic" categories like Obviative and Switch Reference, in which nouns and verbs are morphologically marked for participant deixis, have now been fairly well described for numerous languages. It has less often been noted that when studied from a discourse perspective these same functions which are realized morphologically may be made in other languages pragmatically, using quite different strategies. In Old English prose, a poverty in morphology and in deictic distinctions was compensated for by a use of word order, which was able to distinguish between (for example) accusative and reflexive pronouns, same and different subject, and in-focus and out-of-focus participants. An examination of these phenomena suggests some observations about the relationship between strategies for deploying participants and transitivity: A new episode, usually implicating a change of subject, frequently begins with an intransitive verb (such as "go"), preferably specifying a change of location, or a subject-identifying verb such as "came to the throne". Events internal to an episode, on the other hand, tend to have clause-final verbs and to be higher in transitivity.

In Defense of the Segment in Phonological Acquisition

In several works over the last decade, a new approach to phonological acquisition has been developed which has come to be referred to as a 'cognitive' theory of phonological acquisition (e.g. Ferguson & Farwell 1975; Macken 1979; Macken & Ferguson 1983). One of its varied claims is that the child is proposed to begin with the 'word' as the basic unit of phonological acquisition, only later switching to the 'segment' (Macken 1979).

This paper is a response to this claim and defends Jakobson's original position that children begin with the segment as a unit of organization. This is done by presenting seven arguments in support of the segment. For example, if children shift from 'word' to 'segment', then there needs to be some mechanism which causes the child to shift. The cognitive theory, however, gives none. This is not a problem for the 'segment' approach, which assumes that the child begins with adult-like units of organization.

It is concluded that the claim that children begin with 'word' as a unit of organization has theoretical, methodological, and empirical problems which do not exist if it is assumed that children have segmental organization at the onset.
Tone and Stress in Serbo-Croatian

Serbo-Croatian has traditionally been described as a pitch-accent language with four different surface accents (e.g., Lehiste and Ivš 1986, and the references therein). However, this inventory can be considerably simplified when ‘accent’ is broken down into its phonological and phonetic subcomponents, which we call tone and stress, respectively. In this paper we propose an autosegmental analysis of tone in the Eastern variant of Serbo-Croatian, in which stress is treated as the phonetic interpretation of phonological tone.

Tone and stress are also distinguished by the domains with which they are associated. While we regard stress as a property of syllables, tone rules provide considerable evidence that tones are assigned to moras. The distribution of surface contour tones is shown to be a natural consequence of requiring each mora to be either High or Low.

In underlying representation, the tonal inventory may be simplified even further, in a way which is characteristic of pitch-accent languages in general. All tone rules and conventions applying through the lexical rules can be sufficiently described in terms of High tones; thus, only Highs need to be represented in the lexical rules, and Low tones are introduced at the post-lexical level. The resulting asymmetry between High and Low tones is one of several properties we discuss which make Serbo-Croatian a pitch-accent language, despite the absence of phonological ‘accent’.

A Categorical Grammar Analysis of Raising

This paper proposes a new analysis of Raising within the framework of Categorial Grammar. First, we take the view of Equi put forth in, e.g., Dowty (1978; 1986) and Chierchia (1984, 1985) whereby try selects for VP complements (and is thus in (S/NP)/(S/NP) and denotes a relation between individuals and properties. Thomason (1976), Dowty (1985) and Gazdar, Klein, Pullum and Sag (1986) all propose that seem is like try - it too selects for a VP and denotes a relation between individuals and properties. In our analysis, on the other hand, seem in (1) *John seems to be nice* is actually an S/S, and semantically maps propositions into propositions. However, a certain class of verbs (including seem) is marked in the lexicon as being able to combine by function composition; in (1) the S/S seem function composes with the S/NP to be nice to give the S/NP seems to be nice.

This accounts for three facts not accounted for in the analyses cited above. First, there are cases where an earlier argument in is an Equi controller (e.g., *To lose bothers John*), but there are no analogous cases of backwards Raising. The fact that Raising controller must always be the next argument after the VP complement is introduced is an immediate consequence of the function composition analysis. Second, an Equi but not a Raising VP may extract: *To be nice, he tries vs. *To be nice, he seems. This follows under our analysis since only arguments can extract in English and a Raising VP is not an argument. Third, we account for the familiar nominalization contrast (Chomsky, 1970); our account again hinges on the fact that VP complements in Raising constructions are not arguments.

Non-Disjunctive Ordering in Inflectional Morphology

In the current debate over whether an instantiation or counterpart of the phonological "Elsewhere" Condition (EC) governs morphology and the lexicon, notably Kiparsky 1982 and Anderson 1982 have assumed a morphological EC, while Janda and Sandal 1984 (JS) have presented more than 20 counterexamples to it and argued that there exists only a strong tendency toward lexical "blocking" (Paul 1896, Aronoff 1976) which is itself subject to exceptions. But "Disjunctive Ordering In Inflectional Morphology" (DOIM; MLL 4.1 (1986)) has claimed that JS’s examples of conjunctively-marked irregular forms are subject to inverted reanalysis such that they involve only a single rule-application (or generalization) and so do not fall under the EC. E.g., German ( Gn) "mixed" verbs like bringen/brachte/gebbracht ‘bring/bringing/brought’ can be analyzed as having the basic stem branch- and a partially-suppletive irregular stem bring- marked [+Pres]; English (E) child-language (CL) forms like feet, as form (fets, foot, *fot*). This paper, though, presents new evidence showing that Gn mixed verbs cannot be so analyzed, that other E forms exist for which no such stem-reversal is plausible (e.g. peoples, mine’s), and that similar cases are provided both by Gn irregular past-subj.s (like störbe “died”; cf. sterben/sterb/sterben 18/died/died/died) and by English irregular p.s like knives, head[es], true[2]. The evidence for these conclusions is diachronic (directions of analogical leveling) as well as synchronic (e.g. CL over-regularizations; the fact that taking the stems branch- etc. as regular and basic is incompatible with the analysis strongly motivated for Gn strong-verb past-subj.s by DOIM’s author in L 13.4 (1982)).
When Whites Talk to Blacks

This paper presents results of an investigation of white accommodation to black vernacular English (BVE) in controlled experiments. Recordings were conducted among racially integrated junior high school students. Subjects were instructed to "be themselves" in an informal meeting with another friend. Each conversation consists of a dyad with two students; one black, the other white. The students believed their recordings would be used to give foreign students listening practice with authentic, informal American speech. Subjects were observed and evaluated by their peers, who judged the authenticity of the data. Significant linguistic alternations toward BVE were recorded among most white informants, thereby reinforcing Trudgill's (1983) observations regarding the concept of "covert prestige." Analyses of copula variation, invariant be, negative concord, subject-verb agreement, and popular slang reflect this covert prestige, as well as linguistic stereotypes drawn from discourse analyses of these data. Although there is a significant degree of linguistic accommodation toward the black dialect, some well established BVE variables are rarely employed by white subjects, while others (e.g., copula deletion) appear with great frequency. These results bear directly on Labov's (1986) recent claims about linguistic divergence among black and white dialects in Philadelphia, suggesting a more complex national picture of linguistic variation across racial lines.

ELOISE JELINEK, University of Arizona

Possibility and Necessity in Natural Language

The two basic notions of modal logic, necessity and possibility, have been known since antiquity to be interdefinable, or "equipollent". Each can be defined with reference to the other, with two instances of negation: $Pp \equiv \neg \neg P \equiv "it \ is \ possible \ that \ p \iff \ it \ is \ not \ necessary \ that \ not \ p; \ and \ NP \equiv \neg P \equiv "it \ is \ necessary \ that \ p \iff \ it \ is \ not \ possible \ that \ not \ p". \ Neither \ notion \ can \ be \ shown \ to \ be \ logically \ prior \ to \ the \ other. \ Nonetheless, \ some \ logicians \ have \ favored \ the \ notion \ of \ necessity \ as \ being \ somehow \ cognitively "cleaner" than possibility; Quine, for example, prefers not to speak of "possible worlds", but of worlds that are "not necessarily not". There is evidence suggesting, however, that in natural language necessity has a more complex, derived semantic structure than possibility. Data will be given from a number of languages where there is no way to speak of 'necessary' other than as 'not possibly not', and where there is no way to say 'not necessary'. In these languages, 'not necessary' would presumably have to be expressed as 'not [not possibly not]' which may account for the absence of such constructions. No examples have been seen of languages where there are forms that express necessity that are structurally simpler than those expressing possibility. It appears then, that in natural language, possibility is the more basic notion.

BRIAN D. JOSEPH, Ohio State University

Is Raising to Prepositional Object a Possible Rule of Grammar?

Joseph 1979 argued that Modern Greek adverbial adjuncts (underlined) as in (1):

(1) me ton (n) na skilata (afvas) ski an bor h na kalov. 
with John ACC PRN stand 356 he/NOM there BET can/156 work/156

Involved raising a subject noun phrase contained within a clausal object of the preposition me, with to become itself the object of me. Similarly, McKeown 1984 has argued for such a rule for Modern Irish sentences such as Thlochadh le i Clarden be mac mhiathair Tiran could buy a house, with Clarden raised to object of the preposition le with.

Chomsky (class lectures), though, recently reassigned the Irish type within 68 theory so that le is a case particle marking a subject, and Poste 1985, within Arc-Pair Grammar, argued that it involves raising to direct object with subsequent demotion to indirect object, marked by le. Moreover, Lexical-Functional Grammar permits raising only to semantically unrestricted subcategorized functional slots (SUBJ, OBJ, 0BJ), but not prepositional object. These considerations call the existence of Raising to Prepositional Object (RPO) into question, and force a reconsideration of the Greek type in (1).

It is shown here though that (1) cannot be so easily reassigned; me is not a case-marking particle, and marks only oblique grammatical relations, very circumstantial; further, this relation is neither semantically unrestricted nor strictly subcategorized. Therefore, RPO must be a possible rule of Universal Grammar (UG), in any theoretical framework.

Several important consequences result: an analysis of English for le complements as RPO with the prepositional complementizer of becomes possible, and UG must tolerate both finite-clause raising and copy- raising since the clause-remnant in (1) is fully finite (e.g., marked for person/number/tense) and allows a copy pronoun (afwas in (1)).
On the Origin of Latin sum, Oscaic Sum

Oscaic and Latin superficially agree on the form of the 1SG present of 'to be': sum/sum respectively. These forms differ markedly from those elsewhere in Indo-European, e.g. Hitt *,sum, Gr *sum, Goth. sum, all from *(H)je 모- from which neither sum nor sum can be derived straightforwardly.

A natural question that arises concerns the significance and origin of these parallel forms. Five positions on sum/sum can be identified in the literature: a) silence (Beele Palmer, Jones all say nothing about it) b) shared innovation (thus proving italy unity, so Buck, Heillet, Oliver) c) shared retention (i.e. an archaisms, from IE ISG *-re-om, so Badar) d) independent but parallel innovation (Szemerényi, Safaréwicz) e) language contact (usually Oscaic borrowings from Latin, co Bonfante, Pisan). In this paper, we assume italy unity (ignoring independent innovation as impossible to disprove in principle) and demonstrate the following:
1. the sum/sum similarity cannot be the result of language contact
2. newly discovered forms (So. Campanian/So. Picianum) make shared retention untenable
3. a straightforward account of sum/sum is possible that draws on the apparent clitic-like behavior of 'be' in Proto-Italic.

Thus Oscaic sum and Oscaic sum do not pose a diachronie puzzle as generally thought, but instead provide another argument for italy unity, supporting the view of Mellet et al.

CHRISTINE K. XAMBRATH, University of Texas-Austin

Stress-based Lexical Stratification in Berguener-Romansh

The theory of lexical phonology proposes a word-formation component, the lexicon, which may be divided into discrete levels in which certain morphological processes apply to which certain phonological rules may be assigned.

In this paper, we examine a dialect of Raeto-Romansh in which the lexicon is divided into two levels, each bounded at its end by an application of stress assignment. Morphological affixes are assigned to one level or the other depending primarily upon whether the forms in which they occur have one stress or two: e.g., [fäh] 'goodness' has only one. Thus [-i] is a level-two affix added after [i:] has received stress on level one; [e] is a level-one affix. We also bring to bear crucial evidence about verbal inflection, especially the future tense, which is shown to be formed on level two, due to the presence of two stresses: [[vend*]] 'will sell'. We argue that stress does not apply cyclically, i.e., with each affixation, in this language: cyclic stress assignment would stress both [dang] and [bunt] twice. We argue furthermore that lexical levels here are defined solely by stress assignment and that other considerations such as affixation vs. compounding are irrelevant or dependent on it.

Finally, knowing that stress assignment must be lexical though not cyclic, we provide further evidence that prosodic rules are of a different nature from segmental rules and need not follow the same principles of application.

JUDY KEGL, Princeton University

The Sign Language Situation in Nicaragua: Initial Findings

Nicaraguan Sign Language (NICASL) has never before been analyzed or documented. Initial research with 30 deaf adolescents in a vocational school and 133 deaf primary school students conducted in Managua in the summer of 1986 reveals that intensive study of the language and culture of the Deaf in Nicaragua has a great deal to offer to our overall understanding of sign language research, particularly regarding the relationship between the development of deaf communities and language change. This paper reviews the current state of the deaf community in Nicaragua since the establishment of the first schools for the deaf after the revolution just seven years ago. Particular attention will be paid to typological characteristics of this language which exhibits a great deal of standardization, despite the fact that almost none of its users are deaf children of deaf parents. Its historical relationship to Spanish, French and American Sign Language will be examined, as well as influence from contact with spoken Spanish. Finally, we will focus upon some peculiar properties concerning gender marking in NICASL, where feminine appears to be the unmarked gender. Possible influence of the morphological gender marking system existent in spoken Spanish on the NICASL gender marking system will be considered.
Diachronic Processes in the Evolution of Reflexives

The development of reflexive morphemes to middle voice markers is well attested in a wide range of languages (Faltz 1978, C. Lehmann 1982). This paper argues that this type of development does not necessarily result in a typological change from a nominal-reflexive language to a verbal-reflexive language (as claimed by W. Lehmann 1974). Instead, the nominal category of Reflexive may be preserved in one of two ways. In some languages (Turkish, Hungarian) a new reflexive arises from an emphatic noun meaning 'self' (often derived from words meaning 'body' or 'soul'); the old reflexive continues to exist as a verbal affix (e.g. Hungarian: mag 'self' vs. verbal infix -kad). In other languages (Icelandic, Russian) the original reflexive splits into two distinct forms: a full form, and a shorter form produced by phonological reduction and cliticization (Icelandic: rel. sig vs. verbal affix -st). These two types of diachronic processes, although formally quite different, result in typologically quite parallel systems. In both cases, the two forms become specialized to fulfill distinct semantic functions (cf. Haiman 1983). These typological and diachronic generalizations indicate that middle voice systems are a fruitful area for research on language universals.

Slovak Rhythmic Law: Iterative or Cyclic?

Browne ('70,'72) introduced the Slovak rule shortening the second of two successive long syllables into the generative literature: cf. vol-am but pis-am. The imperfective suffix [-av] triggers shortening of the inflectional [-am] even if it itself is shortened by a long root: cf. vol-av-am vs. pis-av-am. On the basis of pis-av-am Browne argued that the rule must apply simultaneously. This analysis was carried over into subsequent discussion of the so-called multiple application problem, leading Kenstowicz & Kissberth ('73,'77) to propose a right-to-left iterative mode of application for the rule. In this paper we show that there are reasons to doubt this iterative interpretation of the Rhythmic Law. Specifically, the Rhythmic Law is a lexical rule in the sense of Kiparsky ('82) since it has lexical exceptions and must be ordered prior to rules whose application is clearly restricted to derived contexts. The Lexical Phonology model of Kiparsky ('82) thus predicts the rule to be cyclic. We show that this prediction is confirmed. In a number of cases the morphology constructs a chain of three long syllables [V[V][V] with shortening of just the middle syllable. Browne's pis-avam then becomes problematic. We propose an alternative analysis in which [-av] derives from [-aj] (cf. Flier '72). Slovak has a rule shortening vowels after jod (Isachenko '64). If this rule applies before [-aj] becomes [-av] then pis-av-am is explained.

Timing Depends on Fo: Data from Pular

Lyberg (1979,1981a,b) showed that in Swedish stressed vowels in phrase-final words are lengthened to fit the large change in Fo associated with the sentence accent borne by the last word of the phrase. When the sentence accent is shifted to an earlier word, no dramatic Fo change occurs on the final word and there is noticeably less lengthening of its stressed vowel. Bruce (1981) replicated Lyberg's results for the shift in sentence accent but also showed that stressed vowels in words with accent 2 are not longer than those with accent 1, even though the Fo change for accent 2 is greater than for accent 1. Data from Pular were recorded to see if vowel duration generally depends on sentential but not lexical accent. Fo contours of Pular words with initial stress fall early in the stressed syllable, like Swedish words with accent 1, while Pular words with stress on the second syllable have a rise in Fo followed by a fall, like Swedish words with accent 2. Both kinds of Pular words were recorded in final position, with the sentence accent on the test word in some repetitions and with it shifted to the preceding word in others. Although the Fo excursion was consistently larger on stressed than unstressed vowels, their durations were not greater. However, both stressed and unstressed vowels were noticeably longer when the test word bore the sentence accent than when the accent occurred earlier. Sentential, but not lexical prominence, as marked by a larger Fo excursion, increases vowel duration in Pular as in Swedish, although these languages are otherwise genetically and typologically distant.
Homer's Greek āu: A Synchronic, Diachronic, and Comparative Analysis

Dunkel has stated that Proto-Indo-European *āu (Sk t. u : Gk. ā) was an enclitic conjunction capable of linking both words and phrases and therefore functionally equivalent to *e (Sk t. ca : Gk. te : Lat. que). This paper will show that the results of both internal reconstruction and the comparative method refute Dunkel's statement.

Homer's āu signals a gamut of coordinate sentential values. It may be discontinuous within a series ("in turn"), adversative ("but"), weakly connective ("and"), correlative-anaphoric (untranslatable), and annunciatory. Notably absent from the syntax of āu is word-level conjunction. Internal reconstruction shows the correlative-anaphoric and annunciatory roles to be older than the values 'and', but, 'in turn'. The former are found exclusively in the Iliad, the earlier of the two Homeric epics.

These results are completely supported by the comparative evidence of Rigvedic u, a discourse connective particle employed in simple sentential conjunction, within correlative structures, and in annunciatory value. Word-level conjunction is extremely rare. Klein has shown that the sentential conjunctive value of u is younger than its correlative-anaphoric and annunciatory roles. Thus, āu and ū show the same underlying syntax, which differs markedly from that of *e. The latter has no annunciatory value, is specifically avoided in correlative structures, and is used chiefly as a word-level conjunction.

Who Does What to Whom: Person and Case in Children's Utterances

The importance of egocentricity is often mentioned in the literature on case (e.g. Givon 1976, Zubin 1979) but little data has been presented (e.g. Wierzbicka 1981). This paper reports results of an exploratory test of 17 children, to see whether ego would be favored as the subject for invented utterances. The children were given verbs which suggest three arguments (e.g. give, show) and asked if they could "think of something to say with this word in it". As expected, ego was a preferred participant in the reported events, but its case role was found to be significantly skewed according to the speaker's sex: Ego was the favored subject for the boys (81%), but not for the girls (33%). The skewing of Datives refers was the inverse, with boys casting themselves in dative role 27% of the time, whereas the girls did 63% of the time. The results are discussed with reference to semantic theories of case (e.g. Garcia 1975) and to available data on the relation between person and case and between case and sex.

The Attenuation of Syntax: A Brazilian Example

Inalienable possession (IP) in Brazilian Portuguese (BP) has lost most of the syntactic constraints still detectable in other Romance varieties. Non-conservative literary data, as well as the speech of both educated and illiterate Brazilians suggest that BP/IP is an interaction of "semantax" with pragmatics. With the relaxation of syntactic constraints involving clitics and the def. article, the role of inference has become paramount in determining the link between possessor and inalienable. After examining structural factors like clitic retreat and reflexive-deletion which have contributed to the demise of an unequivocal IP syntax, we will contrast BP with French, in which article/possessive variation still depends to a high degree on syntactic and semantic factors. Of the 4 French rules, BP displays only 1, whereby the possessive must occur if the possessor is not contained in the same S. Even this Default Rule lacks categorical status, since inalienables from the two more innovative corpora at times manifest def. art. when the possessor is in another S, provided s/he is pragmatically recoverable.

MICHAEL B. KLIPPER, McMaster University

FLORA KLEIN-ANDREU, State University of New York-Stony Brook

JARED S. KLEIN, University of Georgia
Proodic Effects on Velo Movements

This study investigates the domain of prosodic effects on phonetic structure by examining velo movements in words with different stress patterns. Speakers of American English produced bisyllables beginning or ending with a nasal consonant, and having primary stress on the first or second syllable, i.e., /mθθVθ/, /mθθVθm/, /VθθVθm/. A newly developed mechanical device, the Velotrace, that has been shown to track velo movements accurately (Horiguchi & Bell-Berti, 1986) was used in this study. The results indicate that velo lowering for an initial or final nasal consonant is of greater amplitude and duration when the nasal consonant occurs in the syllable receiving primary stress. The domain over which stress affects velo height includes not only the nasal consonant, but also the adjacent vowel and the non-adjacent oral stop. These results provide strong evidence that prosodic structure affects the spatial and temporal organization of speech.

WILLIAM A. LADUSAW, University of California-Santa Cruz

Adverbs, Negation and QR

The relative semantic scope of two quantifier noun phrases (QNPs) is not completely determined by their surface structure position. The familiar ambiguity of sentences like someone love everyone currently receives two different treatments. On the Government-Binding approach the ambiguity is represented as a syntactic one, the result of alternative orders of application of a movement rule (QR) which adjoins quantifier NPs to S to derive syntactic representations (LPls) which are the objects of interpretation (May 1977, 1985). The alternative approach, based upon work by Cooper (1975, 1983), allows "storage" of noun phrase interpretations as an option in the mapping from surface structure to interpretation. One difference between the two is that the movement of QNP is generally assumed to be obligatory, while Cooper's storage allows interpretation in situ as well as in wide-scope (raised) position. Were QR movement of QNPs not obligatory, the empirical predictions would be quite similar.

This paper examines the assumption that movement by QR must be forced for quantifier noun phrases and suggests that it be dropped. There has been little explicit justification for the assumption beyond the impression that the adjoined position of QNPs more explicitly represents their scope. There is, however, no logical barrier to providing in situ interpretation. The argument given here for dropping the assumption comes from a consideration of the relative scope of QNPs, adverbials, and negation in Infl. If QR movement is obligatory, then any constituent which can have scope over a QNP must be a target for QR as well. This is true for modals, not associated with Infl, and most adverbials. If the account of the ambiguity is to be maintained for QNPs, then the same freedom of application of QR must extend to these as well. As a consequence, a sentence will have n! LPs, where n is the number of QR targets. This prediction is not borne out, since the relative scope of negation and adverbs is severely constrained by their surface order. An account assuming only optional raising of QNPs avoids this consequence.

UTPAL LAHIRI, Syracuse University

The Ergative Construction in Modern Indo-Aryan

In this paper, I give an explanation for the fact that whereas the western subgroup of Modern Indo-Aryan shows ergative verbal agreement in the past (the so-called 'perfect') tense, the eastern subgroup of the same language family does not, in spite of fairly parallel diachronic syntactic development. It is known that the past tense forms in both subgroups have their origins in the passive participial construction, which had come to have the force of a completed action in Sanskrit itself, and which firmly established itself as the regular past tense form later. The appearance of ergativity in the western subgroup is easily explained, since the participial form of the verb, which behaves morphologically like an adjective, would agree in number and gender with the subject if the verb is intransitive, but with the object otherwise. I suggest in this paper that the lack of ergativity in the eastern subgroup arises from a certain morphological development in that subgroup, viz., the loss of number and gender agreement between an adjective and the modified noun. It follows that eastern languages of Modern Indo-Aryan must have passed through a stage when there was only one form of the verb in the past tense, other forms having arisen later from other paradigms by analogy, as can be easily verified by comparing forms in other tenses/moods in Bengali, Oriya, etc. This presents an example of a morphological change of a specific kind leading to a syntactic differentiation between two subgroups of a language family.
An Auto-Lexical Account of Deverbalized Forms

Sadock (1985) has proposed an autolexical analysis for a type of desiderative nominalization in Japanese in which the nominalizing affix acts as the head of a NP in syntactic structure (SS) but is a suffix in the nominalized word in morphological structure (MS). Since this construction exhibits many of the disparities between internal and external syntax typical of Indo-European participles and gerunds ('deverbalized forms'), it is tempting to generalize this autolexical account to all such phrases. However, the deverbalizing affix in such cases generally does not show the phrasal syntactic properties usually expected of adjectives or nouns, a state of affairs suggesting that the affix should not be taken as the head of its syntactic phrase. The present paper proposes a different sort of autolexical analysis in which this is not the case. Instead, deverbalized phrases are taken to arise from a three-way interaction among logical representations (LRs), SSs, and MSs, where the affix has a lexical representation as an operator in LR and as a suffix in MS but has no lexical representation in SS. The present analysis is shown to overcome several problems with Jackendoff's (1977) transformational account, with which it shares a number of features. Finally, the proposed account is used to shed further light on the problem of the inflection/derivation distinction.

WILLIAM R. LEBEN, Stanford University  
SHARON INKELAS, Stanford University  
MARK COBLER, Stanford University

Lexical and Phrasal Tone in Hausa

The expressive power of intonation in a tone language has been dealt with in the literature as if it were minimal, but the topic has many interesting facets. Hausa, a Chadic language of Nigeria, employs a number of intonational devices that interact with the tonal system, usually preserving lexical tonal contrasts but sometimes neutralizing them.

Along with highlighting words and phrases through intonational means, Hausa also uses downdrift (often considered a more-or-less mechanical operation) to delimit phrase boundaries. Other intonational rules previously treated as quasi-automatic also function to signal the presence or absence of phrase boundaries. Thus, many utterances which otherwise would count as syntactically ambiguous are disambiguated through intonation.

In this paper, we report on a wealth of recently gathered instrumental data and propose an analysis in terms of a highly constrained theory of intonation, which differentiates phonological rules from phonetic ones in that the latter have no access to syntactic or other non-local information (e.g. about the number of syllables across which they must operate), while the latter apply to a restricted number of syntactic entities.

BARBARA LEVERGOOD, University of Texas-Austin

Nandi Length Dissimilation and the Twin Sister Convention

The important analysis of Nandi (Southern Nilotic) nominal tone by Creider (1982) leaves unresolved a problem that I will propose be accounted for by crucial application of the Twin Sister Convention (TSC) as formalized by Clements and Keyser (1983). The TSC degenerates autosegments whenever the relevant configuration arises. Creider's rule of Final Fall (FF) produces a contour tone from a simple final H tone. We note that FF never applies to a short or long vowel that bears a contour tone. Unresolved is why FF does not apply to long vowels that are the result of the application of Fusion (Fus) to H vowels (1) but does apply to fused H vowels that have then undergone Length Dissimilation (LD) (2).

As a solution, I propose that a complex HH on a fused vowel is permitted and blocks FF like any other complex tone (1). A complex HH on a fused and shortened (by LD) vowel is simplified to H by the TSC and FF then applies (2). Of special interest is that although FF is sensitive to tonal configurations only at the level of the syllable, the TSC is sensitive to the distinction between a complex tone on short and long vowels and thus must operate at the skeletal level in Nandi.

(1) L H H  HH (FF)  (2) L L L H H  HH (LD) H (FF,  [Fus] [TSC] [etc.])

/kipsiki:s-i:n-tet-t/ →  

[kip:siki:s-i:n-tet-t] 'shield'

29
DAVID LIGHTFOOT, University of Maryland

(TUES MORN: A)

On the Nature of Lexical Government

Chomsky (1981), Lasnik & Saito (1984), and others require empty elements to be properly governed at LF. Proper government is defined disjunctively such that either lexical or antecedent government is required. This underestimates and misplaces the role of lexical government. Rather, lexical government is a necessary condition for empty NPs, and this plays an extensive role at PF and no role at LF. Empty NPs at LF are subject only to (generalized) binding requirements and there is no independent notion of antecedent government. This permits a much simpler and more accurate model of grammar than that of Lasnik & Saito, hitherto the most thorough treatment of proper government. It has better empirical coverage, permitting new analyses of their Chinese and Polish data, and accounts for newly discovered restrictions on gapping processes in English and Dutch, objective genitives, and intermediate complementizers. It also explains some of the apparently unmotivated features of Lasnik & Saito’s analyses.

DIANE LILLO-MARTIN, University of Connecticut

(MON MORN: B)

Bounded A'-movement in American Sign Language

In English, COMP-to-COMP movement of wh-question phrases is a well-known phenomenon (1). In Chinese, wh-phrases do not move in the syntax, although Huang (1982) argues from scope phenomena that wh-movement does take place in LF (2). Thus he concludes that all languages have wh-movement, although they may differ as to whether this movement is in the syntax or at LF. In this paper, I will argue that American Sign Language (ASL) displays an inbetween phenomenon: possible movement of wh-phrases to one COMP in the syntax, but COMP-to-COMP movement only at LF (3). Wh-movement in ASL also obeys the WH-Island Constraint and the Complex NP Constraint (cf. Fischer 1974), although sentences which would otherwise violate these constraints can be saved by a resumptive pronoun, either overt or null (Lillo-Martin 1986). An analysis of these data within a parameterized subcency theory such as Chomsky (1981) and Rizzi (1982) would suggest that ASL has NP, S, and S’ as bounding nodes for subcency, thus supporting this combination as an available parameter setting.

(1) [f, Who, did John tell Mary [g, ∃, that Bill saw ∃]?
(2) nǐ kanjian-le shei? 'Who did you see?' you see-ASP who at LF: [[shei], [nǐ kanjian-le ∃]]
(3) a. WHAT MARY EAT? whom 'What did Mary eat ∃?'
   b. WILL THINK WHO LIKE MARY? 'Who does Bill think that likes Mary?'

CHARLOTTE LINDE, NASA

(SUN AFT: A)

The Quantitative Study of Communicative Success

From its inception, sociolinguistics has never attempted to define itself as a closed or autonomous discipline, but rather has considered relations between linguistic variables and so-called real-world variables, such as age, sex, and social class. Now that techniques for the study of discourse have developed sufficiently, it is possible to consider the effectiveness of utterances in their real-world context. This study uses as its data transcripts of 8 aviation accidents, as well as transcripts of 14 full-mission flight simulations. The linguistic variable is a 4-degree scale of mitigation; the real world variables are success of the individual communication, and peer judgments of the effectiveness of simulator crews. The scale of mitigation was established by several linguistic analysts, and validated by members of the aviation community. Using this scale, a number of hypotheses were confirmed: (1) Utterances going up the chain of command are more mitigated than those going down, showing that mitigation is sensitive to social rank. (2) Utterances introducing a new topic are more likely to fail if they are mitigated than if they are direct. (3) Suggestions by a crew member to the captain are more likely to fail if they are mitigated than if they are direct. These results show a strong effect of mitigation on several measures of communicative success, and indicate an important research direction for discourse analysis.
Cross-Linguistic and Cross-Language Evaluation of "Plus/Minus" Voiced Feature

Whatever the status accorded the [voiced] feature of English in abstract phonology, it is agreed that for initial stops the "voiced" set is not regularly marked by closure voicing. For this set the [voiced] feature is redundant, not distinctive. In many languages, e.g. Hindi, there are initial stops that are regularly voiced. In Hindi, then, the signaling function of closure voicing, and presumably its phonological status, is of a different kind. It is reasonable to expect this difference between English and Hindi to be reflected in different patterns of responses to variation in closure voice duration from [-voiced] to [+voiced]. An appropriate test was devised by waveform editing of a naturally produced syllable [di]. Two groups of linguists, one English-speaking and the other Hindi-speaking, were asked to report whether they heard pre-release voicing or not. As hypothesized, their response patterns were different. As was not hypothesized, however, it was the first group that showed a pattern of monotonically increasing [+voiced] responses with increasing pre-release voice duration, while the second group favored [-voiced] responses for all stimuli. The well-known facts about the Hindi stops thus do not mean that Hindi speakers readily focus attention on the time interval just before release to make category decisions about voicing. The behavior of the English speakers, on the other hand, shows that its linguistic "irrelevance" does not preclude their attending to that feature.

BARBARA LUST, Cornell University  REIKO NAKAZUKA, Cornell University (TUES MORN: F)
TATSUKO WAKAYAMA, Cornell University  KAZUYO OTAHI, Cornell University

When Is An Anaphor not an Anaphor? A Study of the Acquisition of Japanese "zibun"

The role of 'zibun' in Japanese grammar has currently become critical both to a theory of anaphora in Universal Grammar, and to a theory of natural language learnability. In particular, the issue of to what degree various lexical items in a language represent the abstract features (+/- anaphoric) and (+/- pronominal) in order that the Binding Principles of UC can be instantiated, has become critical in both areas.

In this paper we report the results of an experimental test of first language acquisition of 76 Japanese subjects from 3 to 5 years of age, wherein the nature of these children's initial hypotheses regarding Japanese 'zibun' was tested in several ways. "Zibun" was tested in the subject position of sentences with both complement and adjunct clauses according to a factorial design which varied structure and directionality.

Results showed that children's acceptance of 'zibun' varied with both structure and direction. For example, 'zibun ga' was significantly converted to the emphatic, 'O zibun de' (he, by himself) in certain positions.

Results are argued to show that 1) Japanese children's initial hypothesis regarding 'zibun' is not that it is an anaphor which is independent of its locality; 2) the unmarked representation of a pronominal is a zero pronoun in these domains.

These results are argued to have implications for the linguistic theory of 'zibun' in Japanese and in UC, and for universal structure-dependence in first language acquisition.

MONICA MACAULAY, University of California-Berkeley (TUES MORN: C)

Karok clitics: Endoclitic vs. Suffix

This paper examines the putative endoclitic ("infixed" clitic) of Karok. Bright (1957) claims that the Karok verb has four post-verbal slots, containing the following elements (1 is innermost; 4 is outermost): 1) 1 suffix, 2) 1 clitic, 3) 2 suffixes, and 4) 1 suffix and 5 clitics. The apparent endocli- sis (of 2) is problematic for theories of clitic placement: it violates the notion of "phrasal affixation" held by some to be criterial to clitichood (Kiparsky 1979, 1985), and it violates the generally-held assumption that affixes appear closer to the stem than do clitics. Derivations of examples containing the class 2 element avía plus a following suffix will be presented, and ordering arguments involving the intricate morphophonological rules of Karok will be given showing that not only is the output the same for most examples whether avía is analysed as a clitic (added last) or as a suffix (ordered with the other suffixes), but also that in some cases it must be considered a suffix to achieve the right output. These arguments will be made within the framework of Bright's original rules, but suggestions for recasting them in autosegmental terms will also be made. Finally, the consequences of analyzing avía as a suffix for the analysis of the other enclitics (class 4) will be discussed.

31
Coarticulatory Effects Between Vowels of Non-Adjacent Syllables

Previous research has shown that formant frequencies in the transitions of full vowels are affected by the vowels of adjacent syllables (Chomsky, 1966), and schwa midpoints, by the vowels of non-adjacent syllables (Fowler, 1981). This research extends the acoustic investigation of vowel-to-vowel coarticulation in English to larger domains, by examining the effects on formant frequencies of full vowels that are attributable to the quality of vowels in non-adjacent syllables. The data analyzed were eight token types of /bVbavVb/ nonsense utterances with /i/ and /a/ and primary stress on either the first or third syllable. LPC analysis of F2 measurements of the full vowels indicates that for some speakers anticipation of the third vowel is evident in the midpoint of the first vowel, demonstrating that vowel-to-vowel coarticulation can cross not only two syllable boundaries but a foot boundary as well. This finding has implications both for a theory of speech production and for a description of the relationship between prosodic and segmental levels of linguistic analysis: it indicates that in some sense preparation for the third vowel begins while the first vowel is being produced; it suggests that the foot does not define the domain over which vowel-to-vowel coarticulation operates.

DIANE MASSAM, University of Quebec-Montreal

Non-Thematic Subjects and the Theta-Criterion

The Theta-Criterion, informally stated, ensures that (i) every A-position must be a member of a chain which receives a theta-role, and (ii) for every theta-role there must be an A-position to which the theta-role is assigned. Chomsky (1981) and others consider the Theta-Criterion to hold at every level of grammar (LF, SS, DS). I argue that clause (i) above does not hold at all levels, but, in a slightly revised form, at LF alone.

My argument is based on "tough" constructions in English and others, where one finds non-thematic subjects of verbs, which are coreferent with empty categories or pronouns in (potentially) indefinitely distant clauses.

Both direct and indirect (A/A-bar/A) raising analyses are ruled out by principles of Subjacency and of Binding Theory. I propose instead an analysis in which the non-thematic subject is a subject at all levels, and is coreferent with an adjectively embedded operator in a non-argument position. This analysis violates the Theta-Criterion. The data suggest that the second clause of the Theta-Criterion does indeed hold at every level, but that the first clause is subsumed under the Principle of Full Interpretation (Chomsky, 1985), which holds only at LF.

BRIAN D. Mchugh, University of California-Los Angeles

The Elsewhere Condition in Phrasal Phonology: Demonstrative Clitics in Chaga

Recent work in phonology has shown that phrasal rules may apply cyclically. In this paper I argue that Chaga demonstrative clitics (dc's) unusual tonology indicates these rules also admit exceptions. Both features, typical of lexical rules, are derived by Kiparsky from the Elsewhere Condition. I will show this holds phrasally as well.

Chaga phrasal rules refer to the (phonological)-phrase domain, derived systematically from syntactic trees. Dc's and their host nouns display an odd tonal paradigm, best analyzed by placing the dc and its host in separate p-phrases, since the noun undergoes p-phrase final rules. Yet (unmetrical) high raising, normally triggered by the boundary between p-phrases, doesn't apply between nouns and dc's. This is tied to the dc's syntactic dependence on the noun. Since they must be distinct words to be phrased separately, yet act as a syntactic unit, I assume they are derived morphologically as a syntactic word comprising two phonological words. Adapting Kiparsky's (1982) reasoning, this syntactic word, like the output of a conventional word-formation level, is a lexical entry, hence an identity rule, disjunctively ordered by the Elsewhere Condition with cyclic rules on the the next level (phrasal phonology) to derive the Strict Cycle Condition. Since its structural description "properly includes" that of JHR, by the Elsewhere Condition it blocks JHR.

32
SUN MORN: D

Syntactic Influence on Morphological Change: Neo-Hittite Evidence

Hittite scholars have claimed that the animate plural endings -uy, -ey, and -as are used interchangeably in Neo-Hittite. An exhaustive search of assured Neo-Hittite texts, however, reveals that most stem classes generalize -uy as both nominative and accusative animate plural; the Old Hittite -ey nominative plural form is then lost. No forms in -as are used for either the nominative or accusative animate plural. There are exceptions to the -uy generalization, with certain classes of words generalizing -as instead. Some exceptions are morphophonemically conditioned.

The remaining group of exceptions appears to be syntactically conditioned. The generalization of the Old Hittite nominative -ey forms in both the relative pronoun and the participles arises from their typical syntactic environments and usages. Similar distinctions exist in other languages; for example, Old English predicatival participles are morphologically distinguished from other predicatival adjectives. Thus, the Hittite example of the animate plural may be added to the evidence for syntactic influence on morphological change.

SUN AFT: A

Discourse Structure in a Poly-synthetic Language

Jawoyn, a Northern Australian Aboriginal language, has a morphologically complex, incorporating verb structure which often comprises a single-word clause. Many clauses contain no overt NPs since participants in several principal syntactic functions are cross-referenced on the verb. Languages of this kind present problems for analysis of Theme-Rheme and Given-New, since these may be realized within a single word: bu-lu-warm-yurray-yurray-ray (3 nonsingular-Specific still 'struggle' reduplicative-Auxiliary Past Continuous) "they kept on struggling right there".

I will show how several Jawoyn grammatical devices realize Theme-Rheme and Given-New Distinctions. These include: (1) textual occurrence of 'extracted' verb forms—striped of the usual bound Auxiliary, with inflected forms of "do/say"—-as the main way of making thematic the verbal lexeme (yonge? bon-jungay "what he (did) look at them" versus ordinary bon-yong-nanay "he looked at them"); (2) common use of 'reprise' and 'tagging' (after Brown 1975), i.e. realization of an NP within a separate tone group, which helps to clarify NP identity, especially when the Theme is Given but potentially ambiguous; (3) use in "discourse-tracking" of two independent pronominal series (cf. Heath 1984: 69) to signal "same as" or "different from" what the speaker assumes the hearer to have expected.

In conclusion I will compare the intersection of Theme-Rheme and Given-New in Jawoyn with aspects of Halliday's (1985) analysis of English.

References


MON MORN: A

Rules and Syllable Structure in Zoque

In Zoque, the /y/ in /poy/ is metathesized when followed by the suffix /pa/.

(1) /poyt/ [poyu] "he ran"
/poyt+pa/ [popya] "he runs"

Also, degemination takes place in forms such as the following:

(2) /yuh+kuy/ [yuhku] "a drink"
/yu+h+kuy/ [yuha] "he plants"

We argue that these seemingly unrelated phenomena can be readily accounted for if the strings of segments involved are analyzed into hierarchically structured syllables, where sequences such as 2 3 1 are taken to be complex onsets with the structure [ C1 C2 ] C3, where the features of C1, C2 percolate up to C3 and determine its interpretation. Under this analysis, in which the expressive power of phonological rules can be severely limited, rules such as Metathesis, Degemination, and Palatalization result from giving a phonological interpretation to C3. If the theory requires that every projection of C be given an interpretation, then the results can be forced and explicit rules of Metathesis, etc. are superfluous. In the paper we will discuss the principles of syllabification and phonological interpretation and extend the analysis to a wider range of examples.
GUI-SUN MOON, University of Texas-Austin

Nasal Harmony in Aguaruna

In this paper I present a nonlinear tier-based solution to the process of nasal harmony in Aguaruna (data from Payne, 1974). The solution which relies upon an auto-segmental treatment of nasality leads us to discuss the issues such as geminate blockage and the cyclicity of syllable structure assignment. Among the various rules to derive the correct surface forms which have undergone nasalization on the basis of the assumption that there is an unspecified nasal segment in syllable final position, the relationship between partial assimilation and x-deletion which should apply in complementary environments can be best accounted for in terms of the Linking Constraint (LC) proposed by Hayes (1986) if an empty position is rarely specified in the structural description of the x-deletion rule. On the other hand, I suggest that the version of the Uniform Applicability Condition (UAC) (Steriade and Schein, 1996) could be extended to accommodate the data of Aguaruna so that the extended version is given. However, such an extension disallows phonological rules which appear to exist. Thus the LC is preferred to be a conceivable solution rather than the UAC because the LC is valid for multiple tier. The fact that the x-deletion rule is red by cyclic syllabification provides more evidence for Harris’s argument (1983) that the rules of syllable structure assignment apply cyclically, but not strict cyclically. In this way, the Aguaruna data sheds interesting lights on the representation of nasal harmony, the behavior of geminates, and the cyclicity of syllabification.

ROBERT W. MURRAY, University of Calgary

Sievers’ Law, the Converse, and Exceptions in Germanic

On the basis of suffixal alternations such as Gothic háideris ‘honour (gen.)’, haržis ‘army (gen.)’, E. Sievers proposed his ‘Law’ governing the distribution of ķ and ĺ in Proto-Indo-European. Sievers’ Law alone, however, does not account for the full range of data involving suffixal ķ and ĺ in Germanic. Although subsequent studies have attempted to account for the Germanic developments on the basis of Sievers’ Law in conjunction with its Converse, evidence from the individual Germanic dialects clearly indicates that the Converse cannot be maintained for Proto-Germanic. Accordingly, in this paper, the relevant PG suffixes receive a comprehensive treatment in which the structural patterns of the suffixes are related to general characteristics of PG syllable structure which are, in turn, seen as a reflection of a universal syllable structure preference law.

SCOTT MYERS, University of Massachusetts-Amherst

The Syntactic Word and the Phonological Word in Shona

In Shona (Bantu, Zimbabwe), the division into words that is motivated by the phonology differs radically from that motivated by the syntax. The phonological word (PW) is characterized as the domain of penultimate vowel lengthening and tone lowering; thus the string ndišhemukúrú:yu “(it) is this great chief” is parsed into PWs as ndiše mukúrú:yu on the basis of vowel length and the tone lowering in ndi-sh “is-chief” (cf. ish “chief”). But the non-phonological evidence indicates that these PWs are not syntactic constituents, and that in our example the copula ndi is an independent word taking the whole NP še mukúrú:yu as its complement. The copula is always followed by a well-formed XP, but what it cliticizes onto can only be characterized as the set of XP-initial elements, e.g. ndo:yu iše mukúrú with the same gloss as above, but with the copula ndo grouped phonologically with the demonstrative yu. The proposed bracketing also allows straightforward accounts of the interpretation, agreement, and NP distribution. Within parameters proposed by Selkirk, we can define PW as ...,Xwd, where ..., includes no Xwd. The result is that a string of function words like the copula is grouped phonologically with the following lexical head.
Anderson LI 1982 claimed that Greenberg's generalization that inflection appears outside derivation in words falls out as a logical consequence of A's theory of morphology. Several authors have argued against A's theory by noting cases where inflection appears inside derivation (Sherwood LI 1983, Bochner Ling 1984, Rice LI 1985). I defend a modified version of A's claim against the apparent counterexample of Navaho (N) verbs (cf. Rice on cognate Slave). First I propose another principle, and show that N apply violates it too. The principle: that a version of Binding Principle A holds in morphology: if an anaphoric morph and its antecedent morph are in the same word, the anaphoric morph must be co-commanded by its antecedent morph. Morphological reflexives in many languages such as Swahili, Ate, Turkish, Wolof, and some others obey this principle. N is an exception: cf. N 'Didi-i-ch-sta' literally 'myself-I-kill'. The principle's generality is preserved by having flat structure for N verbs: every morph in the verb co-commands every other, then the principle is satisfied. This suggests reformulating the inflection-outside-deriv. claim as: every inflectional morph must co-command every derivational morph in the same word. If N verbs have flat structure at the relevant level, this principle is satisfied. I conclude: a) the fact that N verbs are an apparent exception to 2 otherwise broadly motivated principles suggests the problem is partly with the analysis of N verbs; b) looked at this way, N verbs show several properties to suggest they have flat structure; c) claim that inflection is outside deriv. is salvageable.

DUDLEY K. NYLANDER, University of Melbourne

Little Pro in a Non-Pro-drop Language (Baulé)

G-B maintains that little pro is limited to the so-called pro-drop languages (e.g. Spanish and Italian). It is argued here that little pro is attested in Baulé (a Kwa language of Ivory Coast, West Africa), even though Baulé is not a pro-drop language. Baulé has a non-coordinate construction known as the serial verb construction, which has the following structure: (1) NP (VP VP ) (pron) (VP VP ) . "pron" is a resumptive pronoun.

Suppose we generate the resumptive pronoun position with PS rules, but decide not to fill it lexically (since lexical insertion is optional). The result is: (2) NP (VP VP ) (VP VP ) . What type of empty category is e in (2)? It cannot be a variable (WH-trace), since it is not operator-bound. It cannot be PRO, since each VP is tensed. It cannot be an anaphor (NP-trace) since (although it is argument-bound) the chain NP ... e would have two S-roles (one assigned by VP2, the other by VP1), thereby violating the O-criterion. It must therefore be little pro, even though Baulé is not a pro-drop language. Conclusion: little pro is not limited to pro-drop languages.

DAVID ODDEN, Ohio State University

The Standard Model of Lexical and Postlexical Rules in Kimantuumbi

The standard model of Lexical Phonology divides the phonology into two modules, lexical phonology and postlexical phonology, which have different properties. A defining property of the lexical/postlexical division is that lexical/phonological rules precede syntax and postlexical rules follow syntax. All rules applying between words are postlexical, since the concatenation of words is a function of the syntax. This model of grammatical interaction is shown to be incorrect, since it disallows the possibility of an external sandhi rule being ordered before a lexical rule. Such an interaction is found in the Bantu language Kimantuumbi. Glide Formation in that language is lexical since it is cyclic, and cannot apply between words. However Glide Formation counterfeeds the external sandhi rule Shortening, which shortens the long vowels of the head of a phrase: since Shortening applies between words it must be postlexical. It is apparent that the interaction between syntax and the lexicon must therefore be reevaluated. Two plausible revisions of the theory are considered which preserve the modularity of the theory and handle the ordering paradox of Kimantuumbi. The first solution involves a loop between the lexical and postlexical components. The second involves an autonomous prelexical component with access to the output of the syntax. The former solution is shown to fail empirically; the latter solution entails that phonology is not presyntactic.
A Categorial Perspective on Cliticization

This paper investigates classical problems of English contraction from the perspective of extended categorial grammars (ECGs). The simplest categorial grammars are concatenative systems based on the functional application of a functor symbol to a sequence of appropriate arguments to their left or to their right. ECGs (such as the Lambek Calculus) enrich grammatical structure either syntactically (by introducing rules of type-shifting such as functional composition and other rules related to combinatory logic) or phonologically (by allowing the specification of the relation of derived expressions to the Selkirk-Hayes prosodic hierarchy). In grammars with this combination of properties, it is possible to give a direct and revealing account of English cliticization phenomena -- an account in which composite expressions containing clitics are not derived by the application of optional rules from corresponding structures in which no clitics occur. While this account treats adequately the distribution of clitic forms, it makes no use of traces or other global properties of derivations.

JANET B. PIERREHUMBERT, A T&T Laboratories
MARY E. BECKMAN, Ohio State University & A T&T Laboratories

The Representation of Tone in Tokyo Japanese

We describe an extensive series of experiments on the accentual and phrasal properties of fundamental frequency (F0) contours in Tokyo Japanese. Our results support an account of tone structure in Japanese that is different from earlier treatments and has important ramifications for phonological theory. First, there is no autosegmental tone spreading; the F0 contours show that tones are assigned sparsely to the text, and that the F0 of a syllable which has no tone is determined by a phonetic process of interpolation between neighboring tones. Also, tones can be linked to any level in the prosodic tree, not just to minimal tone-bearing units. This assumption simplifies tonal realization rules, since both the F0 target level for a tone and its timing with respect to the text depend on how it figures in the hierarchical structure. An important example is the realization of a L boundary tone between prosodic phrases at the lowest level, which depends both on the pitch range of the terminating phrase and on the segmental properties of the upcoming phrase. We represent this dependency by permitting the L tone to be ambi-phrasal at the point that phonetic interpretation applies. Finally, we discuss how to constrain the power of a hierarchical tonal representation. We suggest that tones can appear only at the periphery or at the strongest prominence in any unit of the prosodic hierarchy, and we motivate a revision of the autosegmental anti-crossing constraint.

ELLEN F. PRINCE, University of Pennsylvania
GREGORY WARD, Northwestern University

On Topicalization and Indefinite NPs

It has been claimed that felicitous Topicalization (TOP) disallows proposed indefinite NPs in general (Kuno 1972, Hankamer 1979), specific indefinites (Gundel 1974), and nonspecific indefinite (Davidson 1984). However, none of these claims can be maintained, as seen in (1) (nonspecific indefinite) and in (2) (specific indefinites):

1) A: 'Do you think you'd be more nervous in a job talk or a job interview?' B: A job talk I think you'd have somewhat more control over.' (S. Pintzuk)

2) 'I'll have to introduce two principles. One I'm going to introduce now and one I'm going to introduce later.' (T. Wasow)

In fact, the definiteness distinction is irrelevant to TOP. Rather, one discourse condition a felicitous TOP must meet (Prince 1981, Ward 1985) is that the referent of the proposed NP stand in a salient set relationship to previously evoked referents. Note that 1 and 2 satisfy this condition. Of course, referents related to the prior discourse are usually, but not necessarily, represented by definites, and it is no doubt this near match of form and function that has misled previous researchers.
Reflexive Pronouns: Variables Linked to a Verb in a Propositional Function

My thesis is that the variation of order of quantifiers over a relation in predicate logic provides a model for understanding reflexive pronouns; the latter are to be understood as not merely a matter of coreference, but also as forming intermediate propositional functions or verb phrases which are reflexive. The present thesis resembles one offered by M. Brame (Ling. Anal. 13), but differs from the latter in being restricted to reflexive pronouns, and in using predicate logic parallels to clarify the linking of a reflexive pronoun to a verb. Support for the thesis: (1) Parallel analyses are offered for active, passive, and middle voices (the latter are assimilated to reflexive propositional functions). (2) The clause-state requirement and exceptions to it (from K. Monahan (Ling. Anal. 16), D. Bouchard (Ling. Anal. 16), and R. Plenog (Ling. Ing. 8) are discussed (basic premise: a reflexive propositional function requires that at least two variables in it be coreferential). (3) Support from logical theory that is developed elsewhere is briefly mentioned.

Multiple Wh-Fronting Constructions

In some languages, including most of the Slavic languages, all of the WH words in multipl questions front to the beginning of the clause. Typical examples are:

1. Koj kakvo pravi? (Bulgarian) who what does 'Who is doing what?'
2. Ko koga vidi? (Serbo-Croatian) who whom sees 'Who sees whom?'

Such constructions have been discussed before, and there has been some controversy over the question of whether both of the WH words in sentences like (1), (4) are in Comp or not. In this paper I defend the answer that both analyses are correct, for different languages. In spite of the superficial similarity of the two sentences above, study of more complex multiple questions reveals that Bulgarian has both WH words in Comp while Serbo-Croatian does not:

Proto-Indo-European Ergativity and Morpho-Syntactic Typology

Villar (1984) has argued that "the Indo-European ergativity theory is today untenable" for comparative and typological reasons. His typological arguments (which largely replicate those of Rusey 1975) are based upon Silverstein (1976), who shows that, while many languages have ergative case marking for animate nouns only (e.g. Aranda, Mungaray, Eastern Pomo), no language has it for inanimates. This casts serious doubt upon the "classical" PIE ergativity theory of Uhlenbeck and Vaillant, which posits ergative case marking for animate nouns, but not for inanimates or "inanimate" ones. But, contra Villar, the (far less well-known) PIE ergativity theory of Kuryłowicz (1953) does not suffer from the same defect, as it entails quite a different case-marking split, whereby all nouns (but not personal pronouns) would have patterned ergatively -- a split which is widely attested among known ergative languages (e.g., Casinana, Georgian, Byirnai). The ergativity theory of Shields (1982) is also potentially compatible with Silverstein's constraints. These latter, "non-classical" proposals must be assessed solely on the IE-internal comparative evidence. On that basis they can be shown to be, not "untenable", but less plausible than some other proposals which do not involve any ergative case marking for PIE.

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Icelandic Case Marking: A Montonic Non-Filtering Analysis

The intriguing facts of "quirky" and default case assignment in Icelandic (Thrallason (1980); Andrews (1982)) suggest an analysis along the lines sketched by Heddle (1982) for Russian case agreement. The key features of such an analysis are: (1) the raising verbs optionally assign case, (2) quirky verbs obligatorily assign case, and (3) a postfilter requires of every NP that some verb assign it case in the course of a syntactic derivation.

In this paper we present a purely monotonic analysis of the Icelandic case marking data cast in the framework of Head-Driven Phrase Structure Grammar (Pollard (1985, 1986); Sag (1986)) that makes no use of positive post-filtering or other non-monotonic devices. We demonstrate its superiority to the Heddle-type analysis by examining the range of facts discussed in Andrews (1982). We also address the theoretical issues associated with monotonicity as well as the implications of our analysis for the theory of lexical and syntactic defaults.

Control into Finite and Non-Finite Clauses

Contrary to the predictions of government-binding theory, languages like Romanian, Bulgarian, Spanish, Persian, and others permit obligatorily controlled NPs in finite clauses. Responding to this finding, some researchers (Comorovski, Rudin, Suñer) have proposed (A) that the controlled NP has the features [-ana, +pro]. Responding to unrelated other problems with the standard GB approach to control, others (Bouchard, Manzini) have proposed (B) that the controlled NP has the features [+ana, -pro]. I show that the advantages of both (A) and (B) can be retained given two assumptions: (1) contrary to Chomsky 1981, all NPs, including the controlled NP ("PRO"), are subject to the binding theory revised as in Huang 1983; and (2) the controlled NP has the features [+ana, +pro] (cf Raposo 1985). These two assumptions together lead to the prediction (crucially, absent under (A)) that the controlled NP is necessarily a subject, but do so without the undesirable assumptions pointed out by Bouchard and Manzini. My proposal also accommodates a finding completely unexpected under the GB approach or (B), that in at least one language (Saramaccan (Byrne 1985)) the controlled NP may take the form of an overt pronoun. This proposal takes shape in a renovated typology of NPs, in which it is predicted that any overt NP type may be matched by an empty category with the same function, and vice versa, a renovation made necessary by the occurrence of resumptive pronouns and empty reflexive anaphors, for example.

Locativization in Emai

Recent investigation within the scope of universal grammar has argued for the origin of grammatical categories in discourse (Hopper and Thompson 1984) and the basis of language change in metaphor (Heine 1986) by relying extensively on decategorization, the loss of morphosyntactic properties. Its opposite, the accumulation of morphosyntactic structure has received scant attention. In this study we investigate constructions of spatial proximity in Emai, an Edoid language of Nigeria. Analysis is focused on the verbs rere 'be far from' and sika 'be near to', and the complexity of their two accompanying NP positions, which appear in syntactically marked or unmarked form. For instance, village nouns in either position are unmarked (Afuze rere bini 'Afuze is far from Benin'), whereas animate nouns like ojere 'rat' are consistently marked by an ebe-clause (Ebe ojere ri rere Afuze 'Where the rat is is far from Afuze and Afuze ere ebe ojere ri 'Afuze is far from where the rat is'). These facts, in combination with the behavior of other inanimate nouns (e.g., udo 'stone', oran 'tree' uha 'well' and ona 'house'), establish that prototypic locatives receive less morphosyntactic marking than less prototypic forms. Not only does this behavior contrast with frequently cited cases where greater morphosyntactic marking is associated with the greater prototypicality of a category exemplar, but it affirms that semantic factors too motivate grammatical structure.
Linear analyses of Swedish word prosody obscure the relationship between stress, length, and tone accents (TA). By adopting a non-linear framework, it is possible to give these phenomena a unified account, which simplifies their description considerably. I present an analysis which integrates Metrical Phonology (MP) and Autosegmental Phonology (AP) into the general frame of Lexical Phonology (LP). Such an analysis can help shed more light on the relationship between stress and tone accents along the following lines. (1) Stress: Swedish is comparable to English (Hayes 1981), in that stress is quantity-sensitive and there is evidence for a structurally similar Main Stress Rule (MSR). Retraction rule, and Pre-Stress Destressing. In addition, Swedish has Heavy Syllable Stressing (HSS). Cyclical derivations are limited to free morpheme compounds (e.g., [[svärm]] 'summer house') and bound morpheme compounds which involve the MSR on the last cycle (e.g., [[ven]] 'friend fem. suf.' vs. [[fabrik]] 'manufacturing' (by HSS, post-cyclical). ('Tone 1'; 'Tone 2, main stress'; secondary stress). (2) TAS are analyzed in the frame of AP. TAS occur only in association with heavy (stressed) syllables. Finally, evidence is presented for placing the analysis of Swedish prosodic phenomena in the frame of LP. LP allows for the same rules being both cyclic (lexical) and non-cyclic (post-lexical). TA assignment is largely dependent on morphological processes (e.g., [hund] vs. [hund-ar] 'dog, dog-the vs. dogs'), which are best understood as taking place in different strata. An analysis within LP is independently motivated for Swedish lengthening rules, interacting with suffission, ephenesis, syncope, and post-alveolarization.

FRANZ SEITZ, Oxford University

The Production and Perception of Implosives in Vietnamese

Vietnamese is known to many linguists through Maddieson's (1984) volume (whose Vietnamese data are from Thompson's 1965 description of the Northern dialect) as a language which has voiced implosives as the main allophones of its bilabial and apicoalveolar voiced stop phonemes. The present paper reports quantitative findings based upon phonetic observation and acoustic and physiological measurements of a range of speech styles from a number of speakers of Vietnamese, which describe the phonetic and linguistic factors that condition an alternation between implosives and fully-voiced non-implosive stops. Experiments using altered natural speech assessed the perceptual status of this alternation, and the factors that condition it, with respect to voicing distinctions in Vietnamese. The findings indicate that Vietnamese implosives lie on the same phonetic voicing continuum as the fully-voiced non-implosive stops and the contrasting voiceless stops, rather than constituting a separate phonetic manner category. This report bears, then, on the precise phonetic description of Vietnamese, on the phonetic description of implosives generally, and on the issue of factors that affect the phonetic implementation of the feature [t voice].


JOHN VICTOR SINGERER, New York University

Tense-Modality-Aspect in Kru Pidgin English

For the most part, the prototypical creole tense-modality-aspect system outlined in Bickerton (1975) can be applied to the extended pidgins of Papua New Guinea and West Africa as well. This is so in the case of Kru Pidgin English (KPE), for example. Spoken along the Liberian coast and in Kru enclaves elsewhere in West Africa, KPE conforms to the prototype in displaying a single non-punctual marker, de', for habitual as well as progresive and in displaying a single irrealis marker, go, for future as well as conditional. With regard to tense, however, KPE departs from the prototype: except for the infrequent use of a past-tense copula, it has no verbal marker of tense whatsoever. The idea that creoles and extended pidgins mark tense solely through context is one that has been frequently invoked and, heretofore, inevitably disproven. In KPE, however, that is what obtains. The present study examines the tense-modality-aspect systems of speakers who acquired KPE in Kru enclaves in Ghana; special attention is paid to these speakers' expression of tense and temporal sequencing.
Perceptual Vector Analysis and Historical Stress Shifts in English Disyllables

Perceptual vector analysis (PVA) was proposed to account for listeners' sensitivity to natural coarticulatory information in speech, as for example in segmenting vowels from fricatives or nasals, and in using anticipatory coarticulation in an unstressed vowel to identify a following stressed vowel. Segmentations made in this way may affect information available for perceiving stress patterns. For example, assigning energy in the signal to a nasal may shorten the perceived duration of the preceding vowel as well as affect its quality and syllable boundary, as in the word 'cement'. If such information then figures in stress perception, the PVA model of the listener may rationalize in part why some words, such as 'permit', have undergone a shift, and others, such as 'pocket', have not. Voicing, manner, and place features of medial consonants in 150 noun-verb pairs that have undergone stress shifts, and 215 N-V homographs predicted by Sherman to shift stress show a majority can receive a PVA account. Plausibly, the PVA model of stress shift does not imply that the criteria for stress pattern perception have changed during the three hundred years in which the number of N-V disyllabic pairs with contrasting stress patterns has increased.

THOMAS C. SMITH-STARK, Colegio de Mexico

The Active-Static Nature of Amuzgo (Otomanguean)

Carol C. Mock (1982) has shown that Chocho, an Otomanguean language spoken in the state of Oaxaca, Mexico, is organized on an active-static basis with respect to the pronominal series which are governed by the verb. Languages of this type are relatively common north of Mexico -- Sapir (1929) characterized two of his six superstocks in this way, Madene and Hokan-Siouan -- but are not widely reported in Mexico. Mock also shows that in Chocho some verbs can be treated as either active or static with a corresponding difference in meaning; that is, it has what Dixon (1979) has called fluid subject marking, apparently found in only a handful of the world's languages. I argue that Amuzgo, another Otomanguean language spoken in the states of Oaxaca and Guerrero, Mexico, also has such an active-static structure with fluid subject marking, as in fact was recognized by Belmar (1901) though his description is unsatisfactory due to his inadequate control of the phonology of the language. The relevant facts of pronominal series and verb inflection are therefore presented, as well as the complex interaction of these facts with suppletive number allomorphy in verb stems and number marking in general on the one hand, and voice-like lexical pairs and derivational phenomena on the other.

DAVID B. SOLNIT, Cornell University

Argument Structure, Grammatical Relations and Causativity in Kayah Compound Verbs

It has been proposed (e.g. Williams 1981, Carrier-Duncan 1985) that the argument structures of derived words can be accounted for by lexical rules applying to argument structure only, and that the syntactic realization of arguments is specified by independent principles.

This paper surveys causatives and several other complex verbal constructions in a language that differs typologically from the synthetic, affixing languages that have figured most prominently in the literature on causatives (Turkish, Japanese, Tagalog). Kayah, a Tibeto-Burmese language of Burma and Thailand, forms causatives by concatenation of full verbs, I argue that these are compounds that are formed by highly productive lexical rules. These compounds are seen to be essentially similar to the affixational causatives, in that they can be accounted for by operations on argument structure plus principles of hierarchical linking to syntactic realizations, of the type described by Carrier-Duncan for Tagalog.

It is further shown that, for the Kayah compounds, the lexical semantics and polysemy of the constituent verbs interact with an inventory of possible "binding" (Carrier-Duncan's term) relations between arguments in argument structures to determine for a given compound one of three interpretive schemas, of which "causation" is one. The semantic element "cause" thus does not need to be directly introduced by lexical rule, obviating the need for Carrier-Duncan's device of abstract predicates specific to individual lexical rules.

Chomsky (1982, 1986) assumes an analysis of the English construction (1) involving an empty operator (Ø), which is base generated in object position and moves to COMP creating an operator-variable structure at S-structure. In this paper I show that the analogous construction in German exhibits an asymmetry between structural case (assigned by unter- 
stutzen) and lexical case (assigned by helfen). (2) This asymmetry is atypical of core 
cases of A-binding in German (questions, relatives, topics) and cannot be explained by the 
mere absence of phonetically realized lexical case, given evidence from Bavarian parasitic 
gaps. (Cf. Felix 1985) Maintaining Chomsky’s movement analysis I propose a solution within 
the derivational framework of Koopmans and Williams (1981), in which case marking (at NP- 
structure) precedes movement to A-positions (at S-structure). I introduce the assumption 
that featureless empty categories cannot bear Case. I then extend this view to additional 
empty operator constructions in German and Icelandic.

1. John is too stubborn [Ø [PRO to talk to e ]]  
2. Maria ist schön genug [Ø [PRO e unterstützen/*helfen zu wollen ]]
   'Mary is pretty enough: support/help to want
   'Mary is pretty enough to want to support/help'

SUSAN STEELE, University of Arizona

Subjects and Sentential Subjects

Luisaño sentences an in (1) have generally been analyzed as containing a sentential sub-
ject complement. (Cf. e.g. Langacker (1976) and Steele (1977).)

   (1) noo p nongeepi miyq
       I aux I:will:leave is
   'I have to leave.'

On this analysis noo nongeepi is the sentential subject of miyq: miyq is 'sg' and the aux p 
is '3rd sg' because a sentential subject is presumably '3rd sg'. One problem here is the 
position of the aux. The Luisaño aux may occur after either the first word or the first 
major constituent in a sentence. But noo nongeepi p miyq is impossible. Another problem 
has to do with agreement. A sentence like (1) but with a '1st sg' aux is fine. This 
paper presents an alternative which resolves these problems and considers its implications. 
The alternative turns crucially on two arguments: (1) a Luisaño subject is a person/number 
value resulting from the combination of a verb and its (non-subject) arguments; and (2) 
an overt lexical item compatible with the subject is possible but never obligatory. Thus, 
the combination of miyq and nongeepi in (1) has a '1st sg' subject, but noo is simply com-
patible with it. Aside from solving the problems associated with the sentential subject 
construction, the alternative requires the following conclusions: If the Luisaño subject is a 
person/number value, there are languages which must lack sentential subjects; More 
importantly, a subject need not be localizable.

DONALD STEINMETZ, Augsburg College
CURTIS RICE, University of Texas-Austin

Gender in Dutch: Inanimate Nouns

Following van Haringen (1954), two major dialects of Dutch are commonly distinguished with 
respect to the genders of inanimate concrete nouns: South Netherlands (SN), a 3-gender system, 
and North Netherlands (NN) a 2-gender system (common and neuter). Furthermore, there is 
evidence of change in SN in the direction of NN. Using data from representative areas of the lexicon 
and drawing on recent work (e.g. Zuidema/Keppe 1984a,b; Steinmetz 1985a,b,c), this paper presents 
a theory of gender in Dutch in which the genders of inanimate concrete nouns in the 3-gender 
system of SN, even those lacking gender-specific markings, are systematically assigned by a 
highly restricted set of gender rules (phonemic and semantic) whose interactive operation is 
regulated by two general principles (a rule-tally and a markedness principle), such that correct 
gender assignments result even when N falls within the domain of no rules or when N falls within 
the domain of two or more rules, which assign different genders, e.g. *self: road, way /no rules 
apply/ *de he 6f 60 = a; germ: 'danger' /go- = a/ 9m 6f in = n; germanic 'prison' /-als = f.go- = a/
9m if in = f. The gender tables of nouns in certain semantic fields are more complex, i.e. they 
contain 3 or more rules. The paper argues that the presence of complex gender tables renders 
the system unstable and prone to restructuring and that the 3-gender system of NN, which utilizes 
only a subset of the SN rules, is a predictable result of such restructuring.

41
DONCA STERIADE, Massachusetts Institute of Technology

Vowel Planes and Inalterability Effects

In a configuration where \( \alpha \) is multiply linked to \( P \) and \( Y \), rules affecting \( \alpha \) must have their structural conditions satisfied by both \( P \) and \( Y \) (cf., Steriade and Schein 1984; Hayes 1986). Recently Kenstowicz (1985) has suggested that an \( \alpha \) multiply linked to non-adjacent \( P \) and \( Y \) may undergo a rule even if only one of \( P \) and \( Y \) satisfies its requirements. This paper offers a reanalysis of the data presented by Kenstowicz, which includes a Japanese rule raising word final a to O. Raising overrules in CaCa roots: word-finally these surface as COCO, indicating that a single instance of a is associated to both syllables. However in CaCa roots raising does not overapply and CaCOCO, not COCOCO, surfaces. This suggests that raising applies when a is in an open syllable and final on the vowel tier. The rule has two chances to apply: lexically, on representations where CaC(CaC) morphemes contain one multiply-linked a, and postlexically, when each syllable is associated to its own vowel segment. Lexically both CaaCaCa and CaaCa will fail to undergo raising because only one of the two syllables linked to a is open. CaCa will undergo raising on the first pass since both syllables to which a is associated are open and no vowel follows. Postlexically CaCaCa - now with two distinct a's - will allow its last a to raise: it is final and contained in an open syllable. Neither a in CaCaCa will undergo the rule at this stage: the first a is non-final and the second is in a closed syllable. A full analysis of Javanese will confirm the hypothesis that all multiply linked autosegments, whether they are linked or not to adjacent positions, are subject to the same conventions on rule application.

EVA SWEETSER, University of California-Berkeley (TUES MORN: E)

Pragmatic Interpretation of Asymmetric Coordinate Conjunction

Iconic principles motivate the asymmetric interpretation of coordinate conjunction (Halman '78). In "Mary kissed Bill, and she offended Joe," clause-order can be iconic for temporal or causal order. Reduction of the 2nd conjunct (syntactic "closeness" of conjuncts) also iconically suggests a "close" interpretation with temporal/causal link. Sweetser '83 argues that causal conjunctions and conditionals have 3 levels of interpretation, including content level (in (1)) and a speech-act or meta-linguistic level (in (2)).

(1) He came because Joe asked him. (Content of Conjunct 1 caused by content of Conj 2)
(2) What are you doing tonight, cuz I'm having a party. (Cl SPEECH ACT caused by C2)

As (3) shows, Halman's iconic principles also shape interpretation of asymmetric speech-act conjunction: the intentional state underlying Speech Act 1 of (3) is assumed to CAUSE the state underlying Speech Act 2. ([3]: Is that ever a great hat, and where can I buy one?) Combining this with Chafe's '84 remark that comma-demarcation of a subordinate clause often marks an asserted (rather than presupposed) reading, we can explain further facts of asymmetric coordination. The semi-obligatory nature of comma-intonation in speech act conjunction thus falls out from (a) the difficulty of presupposing the current speech act and (b) iconic use of intonation and syntax to represent the separate speech act statuses of conjoined speech acts. Affective semantic values of conjuncts will also be shown to influence symmetric/asymmetric interpretation.

NICHIKO TERADA, University of Massachusetts-Amherst (SUN AFT: E)

Unaccusativity and QPs in Japanese

Lasnik & Saito have claimed that Japanese shows no subject/object asymmetries mentioning the ECP. It is also usually assumed that the distinction between underlying unaccusative/unergative verbs is not found in Japanese. Arguments of this sort suggest that Japanese is typologically radically different from English or Italian. I will suggest that this is false that Japanese show both subject/object asymmetries due to the ECP and unaccusative/unergative contrast. Some quantifier expressions in Japanese, which I claim to be QPs, occur only in deep object positions. I will argue that the behavior of QPs is due to possibility of non-lexical government for objects and the impossibility of antecedent government for subjects at t.o. Qs, however, do occur as "subjects" of some intransitive verbs. I will argue that these verbs are unaccusative verbs whose "subjects" are really deep objects and that in Japanese they can stay in that position in S-structure. Two arguments will be given: one involving reflexive facts and one involving a phenomenon called "A-HO Conversion".

42
The Influence of Dialectal Variation on Phonological Acquisition: A Case Study on the Acquisition of Cantonese

The phonological acquisition of a young girl was examined whose parents spoke two dialects of Cantonese. The father's dialect had a phonological distinction between initial /i/ and /n/ which was merged into /i/ in the mother's dialect. The child was followed biweekly for approximately one year. The results indicate that she acquired neither the mother's nor father's dialect. Instead, she acquired [i] and [n] as freely varying allophones of a single phoneme. In the first months, [n] was the most frequent realization of the phoneme, with [i] becoming the most frequent one in later sessions. The results are interpreted as supporting the General Input Hypothesis that children use all available input in acquiring language rather than limiting themselves to a primary language model.

AMY J. UHRBACH, University of Texas-Austin

Rawas Vowel Distribution

The distribution of vowels in Rawas (Austronesian, South Sumatra) provides evidence on two issues in autosegmental phonology: whether timing units are specified as CV or not (X). and the role of the OCP in constraining lexical representations. Rawas exhibits allophonic variation between short and long vowels, with the former occurring in closed syllables and the latter in open syllables; diphthongs also occur only in open syllables. A syllable template of the form (C)VX is proposed, with long vowels derived by late spreading to an empty X slot; this is the lexical parallel to compensatory lengthening phenomena. Exceptional is the behavior of y (both lexical and derived by a late default rule); Diphthongs ending in y occur in syllables closed by ?, and y, unlike other vowels, is never a full syllable; if there is no coda, y requires a consonantal onset. I suggest that in Rawas y is not a full vowel, and X may dominate a y? combination. Such a representation is further evidence that at least some timing units may be unspecified as either C or V, and suggests that this is the case at all levels of the derivation. Rawas vowels also bear on the status of the OCP. True long vowels contrast with monomorphemic sequences of vowels which are neither autosegmental nor associated with a single melody unit. Such sequences are in violation of the OCP, suggesting that the OCP cannot be a universal principle governing lexical representations.

ROBERT M. VAGO, Queens College & Graduate Center, City University of New York

Paradigmatic Errors in First Language Attrition

This paper reports on the results of an experiment which tested the attrition of paradigmatic alternations in Hungarian, the first language of a Hungarian-Hebrew bilingual speaker who immigrated to Israel at age 6. The method used in the study was paradigm elicitation. The subject was asked to produce verbal and nominal paradigms, both regular and irregular, in the rich inflectional system of Hungarian. Although this form of elicitation has its limitations, it nevertheless is one of the means by which reliable information can be obtained concerning underlying language structure, especially when cross-checked with other methods of data collection.

An examination of the data reveals interesting structural deviations in the first language of the informant, which in comparison to the speech of monolingual Hungarian speakers will be categorized as errors. These errors will be claimed to be the result of language attrition and not of imperfect learning; some supporting evidence from the L1 acquisition of Hungarian will be discussed. The attrition errors will be presented and explained as instances of regularization, rule loss, rule simplification, and rule reordering. These strategies will be related to other areas of language structure variation, especially language change.

43
Involvement Semantics

The semantic primitive of involvement makes it possible to predict two types of intransitivization: univerbative (He ate the apple/He ate), and unaccusative intransitivization (He broke the vase/The vase broke). Involvement Semantics assigns a + or - feature to a subject or direct object argument. The + feature is assigned if it is possible to make inferences on the base of the verb meaning about the nature of the involvement in the event of the entity denoted by these NPs. The - feature is assigned if this is not possible. For instance: action verbs like eat allow clear inferences about the involvement of the entity denoted by their subject NP; causatives like break do not allow such inferences. The entity denoted by their subject NP may do virtually anything to function as a breaker (it may throw over a table on which an object is sitting or it may use a hammer to break this object). Four patterns emerge: a) ? +inv V -inv; b) +inv V -inv; c) -inv V +inv; d) -inv V -inv. These patterns predict intransitivization: a) allows unergative intransitivization; b) unaccusative intransitivization. Involvement Semantics makes it unnecessary to specify verbs in the lexicon for their intransitivization possibilities as it is done in many lexical grammar frameworks, such as Bresnan (1982) - The Mental Representation of Grammatical Relations -. Intransitivization possibilities are a direct consequence of the involvement pattern a verb imposes on its arguments.

S. PAUL VERLUIJSEN, University Of Antwerp, Belgium

A Comparative Evaluation of Five Phonological Theories on French Schwa Deletion

Our paper presents a comparative evaluation of the degree of observational adequacy of five phonological theories concerning French schwa deletion (Dell 1973, Selkirk 1978, Bouchard 1981, Anderson 1982, Noske 1983), based on their respective rate of success in predicting the (non-)occurrence of schwa deletion in a threefold corpus (two television interviews and a TV news broadcast). The success rates achieved by the five theories differ substantially: Dell 94.9%; Selkirk 88%; Bouchard 88%; Anderson 87.6%; Noske 94.2%. Further major conclusions include the following:

(i) some rules have near-zero influence on the degree of observational adequacy of the theory (Bouchard's rule A finds no applications among the 500 occurrences we tested);
(ii) conversely, studying a sample of discourse may lead to simple changes to a theory which substantially enhance its success rate (a slight reformulation of Anderson's rule A reduces the rate of failure of his theory by 5%).

A (very crude) calculus of the formal complexity of each theory puts the observational success rates in a different perspective: Dell 58; Selkirk 18; Bouchard 31; Anderson 29; Noske 58 (highest figure = highest formal complexity).

In any field of science progress comes from large-scale empirical comparison of competing theories; this is not current practice in lincomics today.

GREGORY L. HARE, Northwestern University
JULIUS HIRSCHBERG, A T&T Bell Laboratories

Reconciling Uncertainty with Incredulity: A Unified Account of the L* +HLH% Intonational Contour

Previous accounts of the L* +HLH% intonational contour (as described in Pierrehumbert 1980) have proposed different interpretations of its contribution to utterance interpretation. For example, Ladd 1980 claims L* +HLH% is used to indicate 'focus within a set', Pierrehumbert 1980 finds that it can be used to convey 'incredulity', and Ward and Hirschberg 1985 contend that the contour is used to convey 'uncertainty about the appropriateness of some scale or scalar value'.

In this paper, we provide a more general account of L* +HLH%, based upon an acoustic and pragmatic investigation of the contour, which subsumes previous proposals. We claim that speakers use L* +HLH% to convey lack of commitment to the appropriateness of an evoked scale or scalar value. This analysis accommodates both the notion that L* +HLH% is used to convey 'it's not the case that speaker believes a scale or scalar is appropriate' -- BELIEVE(SPEAKER, APPROPRIATE(x)); and the notion that 'it's the case that speaker believes a scale or scalar is inappropriate' -- BELIEVE(SPEAKER,¬APPROPRIATE(x)). The first reading corresponds to the claims of Ladd and of Ward and Hirschberg; the second, to those of Pierrehumbert. We further identify the various factors (discourse and prosodic) which distinguish between these interpretations.
The Maturation of Recoverability in Language Acquisition

Rather than assuming that the principles of Universal Grammar remain constant over the course of language development, it has been proposed that certain principles of UG mature over time (Borer and Waxier in press; Felix 1985). This paper will present evidence from both first and second language phonological acquisition to support this maturation hypothesis. Research has shown that children learning their first language and adults (with an unmarked native language syllable structure) learning their second language typically employ final consonant deletion as a syllable simplification strategy. Another strategy, vowel epenthesis, is common among adults but is not common in first language acquisition. An repair strategies, deletion and epenthesis serve the same function. Their respective outputs differ however, with respect to recoverability: deletion results in an unrecoverable derivation, but epenthesis tends to preserve the underlying form and hence abides by the principle of recoverability. I propose that recoverability, as a principle of UG, matures according to a pre-set schedule. Epenthesis rarely surfaces in first language acquisition because the attainment of recoverability in the child is co-terminous with the attainment of adult-like phonotactic accuracy. The reason epenthesis occurs and persists in adult second language learners is due to the fact that a high level of recoverability has already been attained while the learner possesses a low level of phonotactic accuracy in the second language.

D. H. WHALEN, Haskins Laboratories
PATRICE S. BEDDOR, Yale University & Haskins Laboratories

The Perceptual Link Between Vowel Duration and Nasalization

The Eastern Algonquian languages generally have five vowel phonemes, one of which is nasalized. Historically, this nasalized vowel arose not from a nasal-consonant context but from phonemically long /a/ (Goddard, IJAL, 1955). Because short /a/ did not undergo this change, the development of the nasal vowel appears to be in part a function of vowel duration. The source of this duration-nasalization link could be articulatory or perceptual (or both). Articulatorily, low vowels are often produced with a lowered velum; it is possible that longer vowels also involve greater velar lowering. Perceptually, vowel length might enhance perceived nasality independent of velar height; that is, even if degree of velar lowering is the same for long and short low vowels, the increased duration of nasalization in long vowels might heighten the salience of that nasalization. The present study addresses the perceptual side of this issue by using an articulatory synthesizer to generate low vowels with varying degrees of nasalization and varying duration. If Algonquian nasalization came about as a result of a perceptual link between vowel length and nasality, then longer vowels of a particular nasal coupling should be perceived as more nasal than shorter vowels of the same coupling. This turned out to be the case for phonetically naive speakers of English, indicating that the historical development of vowel nasalization in Eastern Algonquian is possibly perceptual in origin.

DIRRDAH WHEELER, University of Iowa
GREGORY K. IVERSON, University of Iowa

Hierarchical Structures in Child Phonology

While much of the current literature in the area of Child Phonology is focused on whether to assume a 'universalist' or 'cognitive' model, little attention has been paid to the precise nature of the phonological theory best suited to explain the similarities (and differences) in the sequence of acquisition of phonological systems in children. It will be shown in this paper that, under a cognitive model of acquisition (Macken and Ferguson 1983), phonological theories which recognize hierarchical structuring of phonological strings (metrical phonology, Categorial phonology, etc.) are better able to explain the complex process of phonological development in children than are standard, linear, generative phonological theories. On this view, children develop their phonological system by constructing and testing hypotheses governing what constitutes a possible 'word', 'syllable', or other supra-segmental constituent. Many of the observed 'processes' in child phonology can then be explained in terms of constraints on the internal composition of hierarchically-structured constituents in the child's developing grammar. Velar assimilation (where a non-velar consonant assimilates to a velar elsewhere in the word), for example, will be seen to be a consequence of the child's having associated the articulatory feature [\#\#H\#] with the word-level constituent instead of having recognized it as a segmental feature, yielding [kok] for "coat" or [gak] for "rock".
The Celtic languages have a system of morphophonemic alternations involving initial consonants; these 'initial mutations' were once phonologically conditioned but have become morphologized. These languages also have phonological rules which resemble the mutations. One such rule is intervocalic fricative voicing in spoken Breton: standard B. sac'h [sak:] 'sac'h : va sac'h [va sak:] 'my sack' vs. dialectal [sah]: [va sa:x]. The rule affects both radical fricatives and those derived from stops via the spirant mutation: penn 'head': standard va penn 'my head': dialectal [va ven]. It applies both initially and medially, and closely resembles the ancient Celtic rule of lenition (which voiced or spirantized stops): Jackson (1967) calls it 'new lenition'. Jackson recognizes that this more recent, phonologically-conditioned rule must be distinguished from the older one, which is now a morphologically-conditioned initial mutation, but other scholars have failed to make this distinction, regarding fricative voicing as an extension of lenition and forms such as [va ven] as 'double mutation'. In this paper I will show that this is a serious error which interferes with adequate description of the true mutations.

RICHARD WOJCIK, Hofstra University

Against the VSO Hypothesis for VSO Languages

Richard Sproat (1983) has argued that VSO languages are naturally analyzed as having VPs in O-structure, given a GB framework. Much of his claim rests on the observation that surface VPs are ubiquitous in such languages. A case in point is the Celtic periphrastic auxiliary construction, which has surface AUX NP VP constituency. Thus, English (John) is (reading a book) corresponds to Welsh/Breton/ Irish (is) (John) (reading a book). The problem is the existence of surface V NP NP strings, with inflected main verbs. Sproat posits a rule of V-FRONTING, which fronts inflected main verbs or auxiliaries. Thus, V NP NP is really V NP (NP), with a verbless VP. This paper challenges Sproat’s analysis on two grounds. First, one would expect verbless VPs to undergo topicalization, as do other surface VPs, but they do not. Secondly, Breton, unlike Welsh and Irish, has surface AUX V NP NP strings, where AUX may contain more than one verbal auxiliary. There is no natural way for Sproat to shift all auxiliaries and the main verb into initial position. Worse yet, the main verb undergoes fronting, yielding surface V AUX NP NP strings. This same movement rule fronts predicate NPs and APs in copular sentences (NP/NP or NP). Therefore, VSO languages remain a serious problem for analysis in a GB framework.

GEORGE WOLF, College of William and Mary

Bréal and Saussure: Influence and Reaction

Among Saussure's debts to earlier linguistic movements, of particular interest are the ideas of Michel Bréal. For Bréal change is the essence of language. Yet, linguistic form does not contain the principle of its own development; rather, what linguistic form is in relative to how it is perceived by speakers. Moreover, language involves both an inheritance from the past, and a relationship between present forms. Finally, the function or meaning of a linguistic form consists in something like a concept attached to that form.

These are themes which appear in more rigorous guise in Saussure's Cours. Yet Saussure does not simply take them over, but uses them as a basis for overturning a certain global approach to language. In short, Saussure rejects the historicity of language as constituting its essence. Instead, what constitutes its essence is its virtual existence the collective mind of a speech community, and this is inaccessible to individuals.

Saussure's theory thus represents a reaction against a Bréalian concept of language. The purpose of this paper is to define the nature of that reaction.
Mapping and Movement of Partial Tiers in Navajo

This paper will present an analysis of two areas of Navajo verb prefix phonology which provides support for Clements’ (1985) theory of feature matrices and possible assimilation rules. Under such a theory, laryngeal, place and manner features of a segment form separate tiers at every stage in a derivation, crucially here at the mapping stage, and movement of one of the three tiers away from the others may occur.

1. The paper argues that a simplification of prefix ordering follows if mapping refers to partial tiers: [-cont] segments precede [+cont]; [-voice] then precede [+voice]

2. A spread of tone from certain “toned” consonants may create non-realizable segments. In such a case, place or manner features float rightwards and dock at an appropriate CV position.

Apparent irregularities in three types of perfectives are shown to follow rather simply under such an analysis.


Linguistic Accommodation in Israeli Hebrew (IH)

Many sociolinguists have been working within a paradigm presented by Giles, which shows that speakers vary their style in order to accommodate their interlocutors, and present themselves as positively as possible. Giles and other social psychologists have found that while regional dialects or ‘accents’ connotate intensity and a variety of socially attractive attributes, standard accents connote high status and competence. Thus speakers will alter the image they wish to project by linguistically converging toward the standard or the regional vernacular. This paper will explore evidence that in a very complicated sociolinguistic situation the Israeli politicians and singers from N. Africa have been found to converge toward the N. European accent even in situations where other regional dialects speakers would opt for dialect maintenance, or would even diverge from the local standard. A study of politicians and singers of different ages simulates an analysis in apparent time, and shows that on the whole the younger singers converge less radically than their elders. The possible reasons for this change in apparent time cause us to refine the sociolinguistic theory which is being used. We hope to show more clearly than has been possible in earlier studies how confliction motives caused by the double polarization of prestige impact on actual linguistic usage.

MALCAH YAEGER-DROR, Ben Gurion University, Center for Applied Linguistics & University of Montreal

Real Language Change and the Chain-Shifting Hypothesis: The Case of Montreal French Vowels

Evidence from real time language change in Montreal French presents a major challenge to the chain-shifting proposal proposed by Labov, Yaeger, and Steiner (1973). The data further challenge the assumption that dialectal phonology is essentially fixed by adolescence. This study reports on a database consisting of 60 speakers from the earlier Sankoff-Cedergren corpus (1971) who were re-interviewed in 1984. Supplementary data have also been obtained from the archives of the French Department of the Canadian Broadcasting System to provide a full array of corpora for examining language change over real time. Preliminary perceptual examination of this database suggests that the lengthened mid vowels, which should rise along the peripheral track, have lowered and dipthongized. That is, such vowels as the open e of pére, open o of poir and the open front o of peur have all opened and dipthongized more consistently for the older speakers in the 1984 corpus than they did in the 1971 sample. This study documents the shift of these lengthened vowels in stressed syllables where the variation is most evident. The instrumental study of several sample speakers reveals the extent of this change and the more rapid progress it is taking among older speakers.
Spanish -mente Adverbs and the Projection Principle

The process of formation of Spanish -mente '-ly' adverbs (henceforth MAs) from adjectives appears problematic both for lexicalist approaches to derivational morphology (Hasow 1977), Williams (1981)) as well as more recent approaches which admit affixation in the syntax iff syntactic conditions such as the Projection Principle are not violated (Borer (1984), Fabb (1983)). Although MAs violate the Projection Principle by deleting (or internalizing) the external argument—and therefore should not be formed in the syntax, they cannot be formed pre-syntactically in light of their stress pattern (Süßer 1975)) and the possibility of deleting -mente under conjunction. We argue that: MA formation is post-S-structure compounding rather than affixation. This accounts for their compound stress pattern and for deletion of -mente under conjunction (parallel with English compounds such as 'pickup-and-delivery-boy'). We propose that the non-adjectival properties of MAs are due to category-neutralization in the syntax, following Borer (1984). The [H] feature is unspecified, explaining the absence of number agreement with an external NP. The fact that the feminine form of the adjective is obligatory suggests that there is phrase-internal agreement with -mente, which occurs independently as a feminine noun (the historical source of -mente). If such is the case, we may suppose that -mente bears the subject theta-role in the syntax, so that prior to compounding—i.e., at S-structure, the Projection Principle is not violated.

RAFFAELLA ZANUTTINI, University of Pennsylvania

Negation and Negative Concord in Italian and in Piemontese

In standard Italian and Piemontese (a dialect of northwestern Italy), we observe the following distinction: the negative particle precedes the verb in Italian, but follows it in Piemontese. The present paper shows how this fact is related to another distinction: Italian requires negative concord (Rizzi 1982), while Piemontese prohibits it.

In this paper, the correspondence between preverbal negation and the presence of negative concord on the one hand, and postverbal negation and the absence of negative concord on the other, is reduced to a rule. We also provide evidence for the configuration of negative elements in the structure. In particular, negative concord is allowed if and only if a negative element asymmetrically c-commands the position in the structure in which concord is realized. We extend this account to explain differences in negation that have long been observed (Jespersen 1917) between Romance and Germanic languages.

ARNOLD M. ZWICKY, Ohio State University & Stanford University

Surface Filters in Several Branches

A major insight of classical transformational grammar is that there are conditions on syntactic form that are independent of the defining conditions for particular constructions: surface structure constraints, or surface filters. But recent work in syntax has tended to disregard these phenomena, perhaps because so many examples involve reference to morphological or phonological properties and consequently look notably nonsyntactical.

Citing data familiar from the syntactic literature, we argue that the surface filters of classical T6 do not constitute a uniform class of phenomena. Instead, they include at least three types of grammatical generalizations, belonging to distinct components of grammar (genuinely syntactic conditions; 'morphosyntactic', or shape, conditions; and conditions on prosodic structures), plus a set of extragramsatic generalizations about stylistic preferences. One implication is that syntacticians are right to disregard most of these phenomena. Another implication is that morphosyntax and the morphosyntax-phonology interface are enormously rich fields of inquiry, fully meriting the attention paid to them in recent years.
ABSTRACTS

of the Linguistic Society of America

symposium
MARGARET BULLOWA AND THE METHODOLOGY OF CHILD LANGUAGE RESEARCH: CASE STUDY OF A PIONEER
Sutton Parlor Center

Organized by: Lisa Menn, University of Colorado

Sponsored by: Committee on the Status of Women in Linguistics
                Committee on Clinical Linguistics

Saturday Evening, 27 December
8:00-9:30 PM

Margaret Bullowa, M.D., was a pioneer, an outsider, perhaps a visionary, singularly dedicated to one topic for the last twenty-odd years of her life: what is the nature of mother-infant communication and how does it lay the foundation for the acquisition of language? She was a psychiatrist specializing in the mental disorders of children, and what brought her into the study of the ontogenesis of communication was pure intellectual honesty: in the 1950's, popular theories claimed that faulty mother-child communication led to schizophrenia, yet there were no data on normal communicative development against which to evaluate these claims. She writes in the introduction to her book Before Speech that she also "expected to find insights into the miscarriage of communication characteristic of psychiatric patients, imagining that their problem was one of language...I started recording...in the delivery room where possible [I] in order to have records which would include the earliest seeds of language. I had no idea where to expect to find them. Only gradually did it dawn on me that my records on tape and film all contained relevant information."

Bullowa started from scratch: she read heavily in linguistics and infant development, she took linguistics courses around Boston, she joined the LSA and the New York Linguistics Circle, she studied kinesics with Birdwhistell, she studied ethology, and she plunged into data collection on a shoestring budget, supporting herself and her research by practicing psychiatry half-time when the funding ran out. She used a 2-frame-per-second cine camera with manually synchronized audiotape recordings, one track for the sounds of the ongoing action and one for her whispered narrative of as much as she could get of all that was happening in the homes that she visited weekly from the time the children were born until they were a year or two old.

She and the people who worked with her had to invent everything, all the data-reduction methods that we now take for granted as we analyze videotapes with time-codings neatly printed on them, the whole mother-infant dyad research protocol that has become standard since the Zeitgeist at last caught up with her shortly before she died.

This symposium explores what Margaret Bullowa contributed to the study of language acquisition and what we can learn from her extraordinary life as a scientist without a paradigm. The principal contributors to the symposium are: Jeanne S. Chall, director of the Reading Laboratory at Harvard Graduate School of Education, a close friend who watched Bullowa make the difficult transition from physician to researcher; Thomas Bever, Department of Psychology, University of Rochester, who was a research assistant for Bullowa when he was a student at Harvard; Catherine E. Snow, Harvard Graduate School of Education, whose research on early communication has been closely related to Bullowa's; and Jean Berko Gleason, Department of Psychology, who was herself recorded by Bullowa when her children were young. The session is chaired by Lise Menn, formerly one of Bullowa's apprentice baby-watchers, who organized it with the sponsorship of the Committee on the Status of Women in Linguistics and the Committee on Clinical Linguistics.
THOMAS BEVER, University of Rochester

Language Just Outside the Womb: A Pioneer of Baby-Listening

Margaret Bullowa, M.D., trained as a psychiatrist, believed the theory that schizophrenic language involved a regression backward to infant stages. This led her to study the normal forward stages of language acquisition. She approached the problem as a naturalist, starting with laboriously recorded birth cries and following with very frequent films and recordings of children in their homes. Many of the fundamental questions she clarified in her research are still unanswered.

JEANNE CHALL, Harvard Graduate School of Education

Margaret Bullowa, M.D.: Physician and Scholar

The presentation will be concerned with Margaret Bullowa's linguistic work and influence from the viewpoint of a friend over the last 15 years of her life. Her dedication to her linguistic studies will be shown as part of her deep dedication to her callings as physician and scholar. Her dedication to and love of people also underlies the content and methods of her linguistic studies.

JEAN BERKO GLEASON, Boston University

Bullowa's Work in Historical Perspective

Margaret Bullowa's book, Before Speech: The Beginning of Interpersonal Communication, appeared in 1979, after her death. If she had lived, she would be almost 80 today. Her work on language acquisition began formally in 1960 with a grant from NIMH, which was not renewed when she proposed to study interaction between mothers and children. She was thus rather an isolate in her day, but her work can now be seen as marking an important watershed in both linguistics and developmental psychology: In linguistics, she was an early advocate of studying the necessary prelinguistic bases of language development, and in psychology she helped add communicative ability to the concept of the competent infant. In retrospect, her work is not isolated at all, but part of an emerging Zeitgeist that emanated from a number of centers both in the US and Europe.
At a time when child-linguists were focusing exclusively on the development of morphology and syntax, and when serious attention to children's productions was postponed until the first two-word utterances had been observed, Margaret Bullowa insisted on the relevance to language acquisition of developments during the first 10 months of life. Her insistence has now been justified by evidence from many different strands of research: a) data on the degree of sophistication in many of the skills needed for communication already achieved by the child who is just starting to speak; b) data on the degree of continuity in some linguistic subsystems (notably phonology) between the linguistic and pre-linguistic periods; and c) data about the impact on linguistic development of events that occur during the pre-linguistic period. A major re-conceptualization of the major stages of language use has taken place during the last 10 years, involving a recognition that pragmatic and semantic bases for language may explain many developments previously assumed to require the postulation of syntactic rules. Reorganization of the system under control of syntax now appears to occur well after the beginning of multi-word utterances. This view of language instantiates the continuity between the linguistic and the pre-linguistics period that was the cornerstone of Margaret Bullowa's theory of communicative development.
ABSTRACTS

of the Linguistic Society of America

colloquia
Introduction

Chomsky's Binding Theory (1981, 1982) provides an elegant model that accounts for much of the data covered by the classical Reflexive and Pronominalization rules, as well as a range of other phenomena. Turning to the Reflexive rule in particular, two parts of the Binding Theory are relevant: Principle A, "An anaphor must be bound in its governing category," which controls the coreference of reflexives, and Principle B, "A pronoun must be free in its governing category," which enforces the local disjoint reference of certain pronouns. The implicit claim, hedged in various places, is that this is all that needs to be said, that there is no parametric variation in Binding Theory itself, and that observed variation across languages will be predictable from other aspects of the structure.

Other models that have discussed the issue have often allowed for at least some parametric variation. For example, Lexical-Functional Grammar (e.g. Breznick 1983) allows three binary features: Subjective (whether or not the binder must be a subject), Nuclear (whether or not the binder must lie in the same clause nucleus as the anaphor), Logophoric (whether or not the anaphor must lie in an indirect discourse structure with respect to the antecedent). Relational Grammar (e.g. Johnsen 1977) permits a wide range of grammatical-relational conditions on antecedent and reflexive, subject to principles based on the relational hierarchy 1 > 2 > 3 > Oblique, and also permits a specification of the stratum where the relevant condition applies. Feltz's analysis (1977/85), based on a wide cross-linguistic survey, proposes the largest number of parameters I know of: SA (antecedent must be subject), CH (Clausemate), SC ("Strict Clause": the Reflexive rule is obligatory if antecedent and reflexive are in the same clause), CH (Case Hierarchy), of Jackendoff (1972), Command, and Precede.

My purpose in this paper is to propose and defend yet another set of Reflexive parameters. My parameters, of course, overlap to a great extent with those proposed in earlier studies.

Proposed Reflexive Parameters (with examples)

I. Antecedent Location (AL):
   --Subject only: Japanese, Swedish, Haitian Creole, Mandarin (zhǐ),
   French (je), Maricopa (Gordon 1980), Chickasaw (Gordon, p.c.), Russian
   (Perlmutter 1984), Chiwiiní (Abasheikh 1976)
   --Subject or DO only: Jordanian Arabic (Salih 1985)
   --Subject or IO only: Albanian (Hubbard 1983)
   --Subject, DO, or IO: French (jui-même)
   --Subject, DO, IO, and some but not all obliques: English

II. Reflexive Location (RL):
   --DO only: Bahasa Indonesia (diri; Chung 1976); Chiwiiní
   --DO or IO only: Many apparent cases, but all potentially predictable
   from the morphology.
   --DO, IO, most obliques: English (and many others)

III. Range (R):
   --Local: Subject to a clausemate or governing-category condition. There
   is probably also a sub-parameter involving reflexive genitives;
   Compare English and Haitian Creole with Swedish.

IV. Command (C): Antecedent must command reflexive
   [+C]: English, Japanese (pace Feltz 1977), many others.
   [-C]: Mandarin (also Cantonese, based on preliminary data)

V. Precede (P): Antecedent must precede reflexive in linear order at the
   relevant level in the derivation.
   [+P]: English
   [-P]: Albanian

VI. Level (L): We need to be able to stipulate the level at which the
   relevant rule or condition applies. Data from Russian, Albanian,
   Japanese, and Chiwiiní

This list, while lengthy, is unlikely to be complete. For example,
Gerdt's (1985) argues convincingly for independent parameters of Cancellation
and Multiattachment, and contrasts between Japanese and Mandarin (cf. Huang 1982) suggest that a "nearest eligible receiver" condition will need to be available within the range parameter. A number of central questions also remain open. For example, the given examples suggest strongly that the (AL) parameter is controlled by a grammatical-relation hierarchy, but the contrast between Jordanian Arabic and Albanian, unless it can be analyzed away, shows that no simple linear hierarchy will suffice. I will not attempt to deal with all of these issues; my strategy will be to concentrate on a small number of the most interesting and controversial points.

Evidence for the independence of the Command and (AL) parameters

It is often suggested that cases where reflexive antecedents appear to be limited to subject position (or to some combination of grammatical relations) can be handled without changing Chomsky's Principle A, either by adjustments to the language-particular tree structure or by a parameter involving the relevant command predicate (e.g. by adopting a requirement for asymmetrical C-command). There are four arguments against this class of analyses. (Note: the Mandarin arguments are based on work with Yuru Wu.)

A. In many cases it is hard to see any independent motivation for the tree-structure differences that would be required. Compare the S-Structures of English, Swedish, and Haitian Creole.

B. Carden & Campbell (1984) give evidence that making this move in Japanese would require different definitions of "command" for Principle A and Principle C, thus replacing the [AL] parameter with an otherwise unneeded definition of 'command' parameter." These arguments will be summarized.

C. In Mandarin, the bare reflexive zìì requires a subject as antecedent, while pronoun + zìì permits either subject or object as antecedent. It follows that distinct [AL] parameter settings (or distinct 'command'-definition settings) must be learned for the two reflexives. If you wanted to predict the antecedent restrictions from the S-Str tree, the tree that gave the right predictions for zìì would give the wrong predictions for pronoun + zìì, and vice versa.

D. In at least two Mandarin structures (coordination and suirán clauses), the antecedent does not command the reflexive, but the [AL] conditions continue to hold (e.g. 1). The possibility of backwards coreference in (2) confirms that the antecedent in (1) cannot command the reflexive by the definition of 'command' relevant to Principle C. This provides a direct argument that the [AL] cannot be reduced to a command-type predicate.

(1) Suirán Zhângsâ hâ 1e Lâi, zìì yâ bû zhî hu zìì = Zhî; f L although Zhî, best PERF L, REFL also NEG mind 'Although Zhangsan best Lai, he (Zhî) didn't mind.' (Note that the [AL = subj] condition forces the pragmatically unlikely reading.)

(2) Suirán tâ bû dông, Zhângsâ yâ bû zhîhu tâ = Zhî, x although Zhî NEG understand Zhî, also NEG mind 'Although he doesn't understand, Zhangsan doesn't mind.' (Note that examples like (1) also establish that zìì cannot be limited by a clausemate or governing category condition, supporting the existence of a Range parameter. Compare the analysis in Huang 1982.)

Evidence that the [RL] parameter cannot (always) be handled morphologically

In many cases where a reflexive is limited to object position, the reflexive is a clitic, and a morphological explanation is available; Because the reflexive morpheme is an object clitic, the morphology prevents it from appearing in oblique or genitive position, and nothing needs to be said in the Binding Theory. Bahasa Indonesia and Chiwiini, where non-clitic reflexives are limited to particular object positions, show that a Binding-Theory parameter will be needed. In Chiwiini, Abasheikh (1976) shows that the reflexive appears in otherwise forbidden S-Structure locations just in case the reflexive conditions were met before Causative Clause Union, providing a direct counter-example to any proposals that depend on surface morphology. The Chiwiini data also provides an indirect historical argument suggesting that an [RL = object] parameter becomes redundantly grammaticalized in Binding Theory even in languages where the morphology would apparently suffice to predict the distribution.
Evidence for the Level (Rule Order) Parameter

We need to establish two points: (A) Reflexive generalizations cannot be stated solely on S-Structure. Perlmutter (1984) and Hubbard (1983) give clear cases where the reflexive rule must look at a pre-passive level. (B) Given (A), we still need to show that there is inter-language variability, rather than (say) a universal that Reflexive applies cyclically. Here we get a clear contrast from Chiwi:ní and Japanese: In Chiwi:ní, Reflexive applies to a pre-Causative structure, while in Japanese it can also apply after the Causative.

Theoretical Implications

In addition to its direct relevant for the analysis of reflexives, this data has theoretical implications in three areas: (A) The range of parameters observed for reflexives raises the question of whether a defender of GB could maintain the claimed generalization under which reflexives act like a number of other elements with the [−anaphor] feature. While tests remain to be made, it seems probable that parameter settings will have to differ for different elements, as we see directly with the two Mandarin reflexives. (B) The cases where reflexive generalizations need to be stated at levels more abstract than S-Structure imply a revision in simple models where S-Structure or the equivalent is the sole input to determining coreference. (C) The given examples do not speak directly to the question of whether the (AL) and (RL) parameters need to mention grammatical relations as primitives, or whether the necessary relations could be stated in tree-structure terms. However, I would claim that the range of cases describable in terms of GBs is wide enough to shift the burden of proof to anyone who would wish to defend a purely tree-structure analysis.
The goals of this paper are both formal and empirical. On the formal side, we explore the idea that what linguistic theories have specified about the structure of individual sentences is both too much and too little. Too much in that their descriptions of individual sentences specify much that is predictable from the rules of the grammar and universal constraints, and too little in that what distinguishes a sentence from related sentences and what relates it to its discourse functions is either underspecified or not specified at all. We explore the idea that underlying each sentence is an object we call a basis, from which it is possible, given linguistic universals along with language-particular rules and constraints, to reconstruct the structure of the sentence. On the empirical side, the Basis Grammar approach has two important types of consequences. First, it makes interesting universal predictions about the combinations of rules or constructions that are possible in a given clause. Second, it provides an explanation for a range of language-particular constraints whose function has hitherto not been understood. Without these constraints, there would be too wide a range of structures compatible with a given basis. With them, however, the Basis Grammar claim that to each basis there corresponds only one well-formed sentence structure is sustained. Basis Grammar thus provides an explanation for language-particular constraints whose existence otherwise seems only to complicate grammars.

We adopt the characterization of clause structures developed in relational grammar, which has made possible the description of a wide range of languages in terms of a very restricted set of theoretical constructs. The first step is to determine which arcs in a relational network (RN) are in the basis and which are predictable and therefore need not be represented in the basis. Since any theory must state which predicate and nominals appear in a clause, we take the set of initial-stratum arcs to be in the basis. Beyond those, we claim that most arcs represented in RNs are predictable and therefore not in the basis.

First, consider the fact that when a nominal advances to 1 in the Passive construction, the incumbent 1 is demoted, in most languages to Cho. Speaking of the advancement as an “action,” the 1’s demotion to Cho is a predictable “reaction.” Such “reaction arcs” are one type of “adjustment arcs” that need not be represented in the basis because they are predictable, either from universals or from language-particular rules. We can therefore represent the 1-arc headed by the advancee in the basis as “shrink action arc” with the Cho arc headed by the initial 1 omitted from the basis because it is a predictable reaction arc. Second, consider a clause of English in which a 3 advances to 2 and then to 1. The basis need include only the initial arc plus one action arc: the 1-arc headed by the advancee. Given English grammar, there is no way a 3 can head a 1-arc unless it first heads a 2-arc. The 2-arc is thus predictable and need not be represented in the basis; we call such predictable earlier arcs “prep arcs.” The Cho arcs induced by the advancements to 2 and 1 are also predictable reaction arcs that need not be included in the basis. The class of predictable prep arcs turns out to be much larger than one might expect. For example, in cases involving Raising, it is sufficient to specify the Raising arc as the sole action arc; since only a final 1 can raise in English, other complement arcs are predictable prep arcs or reaction arcs. In sentences where a passivized nominal is raised, specifying a matrix raising arc as the sole action arc is sufficient to induce Passive in the complement. Finally, certain final 1-arcs (as in Unaccusative Advancement and certain dummy constructions) are predictable because they are required to satisfy the Final 1 Law. The class of predictable “adjustment arcs” that need not be specified thus includes three subclasses: reaction arcs, prep arcs, and certain final-1 arcs.
Next we explore the phenomena treated as "extraction" in transformational grammar and as nominals heading an "Overlay arc" (O-arc) in relational grammar and stratal grammar. We show that in an interesting class of cases, the O-arc can be treated as an action arc that induces adjustments in clause structure. For example, Cebuano (Bell 1983) is treated nicely in Basis Grammar terms with O-arcs as action arcs that induce advancements to (prep 1-arcs). Since O-arcs (Topic, etc.) play a key role in discourse structure, this analysis brings out the sense in which clause structure is dependent on discourse structure.

Next we state the constraint on which much of Basis Grammar's explanatory power rests:

(1) The One-Arc Constraint

A clause can have at most one action arc.

Although we cannot claim the One-Arc Constraint as a universal, primarily because of the data in Kinyarwanda (Kimenyi 1980), we can nevertheless show that it figures in the grammars of many languages, explaining first, why certain constructions cannot co-occur in a single clause, and second, why languages have certain mysterious language-particular constraints.

The One-Arc Constraint predicts that although a language may allow two distinct construction types for a given type of initial stratum, the two will never appear in the same clause. Choctaw (Davies 1986), for example, allows both Inversion (1-3 demotion) and 2-3 Retreat in clauses with a transitive initial stratum. In Basis Grammar, such clauses would each have a single action arc: the 3-arc. A priori, there is no reason the two constructions could not co-occur, with one demotee to 3 put on chomage by the other and a dummy coming in to satisfy the Final 1 Law. However, the One-Arc Constraint predicts that neither of these structures will be possible. We show that this prediction is confirmed in Choctaw.

The Mayan language K'ekchi, studied extensively by Berinstein (1988), offers an interesting example of how the Basis Grammar approach sheds light on otherwise bizarre language-particular constraints and brings out the relation between clause structure and discourse. K'ekchi has four different possibilities for an initially transitive clause: finally transitive, Passive, Antipassive, and 2-3 Retreat. Interestingly, it turns out that the choice between them in a given case is determined by language-particular constraints. If the 2 is nonreferential, Antipassive is forced. If the initial 1 heads an Overlay arc, Antipassive or 2-3 Retreat is forced (Antipassive if the 2 is nonreferential, 2-3 Retreat otherwise). Overlay arcs are thus action arcs in K'ekchi (as in Cebuano), with Antipassive or 2-3 Retreat as automatic consequences. Since Overlay arcs in K'ekchi are determined by discourse structure, the Basis Grammar approach brings out the ways clause structure is determined by discourse structure. It also brings out the function of the language-particular constraints that force Antipassive or 2-3 Retreat in certain cases.

To show how the Basis Grammar approach can explain otherwise mysterious language-particular constraints, we draw on Southern Tiwa (Allen and Frantz 1978, Allen, Gardner, and Frantz 1984, Allen, Frantz, Gardner, and Perlmuter 1986), a Tanoan language of New Mexico. Southern Tiwa has four relevant constraints: (i) an inanimate nominal cannot be a final nuclear term; (ii) a first or second person nominal cannot be a chomeur; (iii) a third person nominal cannot be the final 1 of a transitive clause; (iv) the final 2 cannot outrank the final 1 on an Animacy Hierarchy. These are language-particular constraints of a common type which we would like to explain. We show that if Southern Tiwa did not have these constraints, the One-Arc Constraint would be violated - that is, it would not be possible to provide each sentence with a basis consisting of only the initial arcs plus one action arc. With these constraints, however, that is possible. The constraints, while complicating the grammar, simplify the structure of individual sentences, making possible a basis representation conforming to the One-Arc Constraint.
In addition to the arguments for Basis Grammar and its empirical consequences sketched above, we present a formalization that makes explicit the formal devices used and a proof that from a basis it is possible to reconstruct an RN and the derivative notions 'F-graph' and 'S-graph'. We formalize the relevant rules and make explicit the relevant parameters of variation. Finally, we bring in the Kinyarwanda evidence that prevents us from claiming the One-Arc Constraint to be a universal, with suggestions for an analysis that might make it possible to elevate some of its content to universal status.
ABSTRACTS

of the American Association for Applied Linguistics

regular papers
The Arabic Adaptation of Sesame Street: Implications for Language Policy

The Arabic adaptation of Sesame Street (known in Arabic as Iftah wa Simsim) has been hailed as a bold linguistic innovation since it incongruously employs a formal literary language as the medium for an informal entertainment program aimed at preliterate preschool children. In what may be considered a daring instance of language planning, a variety described as 'simplified' Modern Standard Arabic (MSA) was successfully used as the language of the series instead of one of the more natural and more readily intelligible vernaculars. This presentation attempts to understand this sociolinguistic situation by analyzing the language of Iftah wa Simsim and exploring the implications of the use of MSA in informal situations. A linguistic analysis of a representative corpus will attempt to define the exact nature of the 'simplification' which the MSA of the series manifests. Of special interest to the discussion will be the implications of this experiment to future developments in the area of language instruction and language use in the relatively complex diglossic context of the Arabic speaking world. Transcribed and/or taped segments from Iftah wa Simsim will be used as part of this presentation for the purpose of illustration.

GERALD P. BERENT, Rochester Institute of Technology

A Government Hierarchy in Language Acquisition

The syntactic abilities of adult deaf learners and second language (L2) learners of English are examined in the context of government-binding theory. Accuracy orders are shown to be a function of learners' varying sensitivities to the operation of principles of government and control in the target language. On a syntax test, deaf learners exhibited the following success order (from most to least successful): (a) adverbial clause, (b) finite verbal complement, (c) infinitive complement, (d) gerund clause governed by preposition, (e) relative clause, (f) participial clause. In terms of governing categories, the following interlanguage government hierarchy emerges which predicts relative degrees of accessibility to target language structures: AGR > V(N,A) > P > Ø. The most success on structures a and b follows from the fact that they contain subject NPs governed by AGR. There is less success on b, however, because its domain is governed by V (or N or A), lower in the hierarchy. The domain of c is governed by V but does not involve AGR, and the domain of d is governed by P. Structures e and f are least accessible since their domains are ungoverned, although more accessible e contains a subject NP governed by AGR. The L2 learners exhibited the following success order on a similar test: a, b, c, e, f, d. This order is predicted to an extent by the hierarchy, but less accessibility to structures c, f, d (all involving PRO) is a function of a difference in sensitivity to principles of control theory on the part of L2 learners. Such interactions among government-binding subsystems provide valuable insight into interlanguage behavior both within and across populations.

MARGIE BERNs, Purdue University

English in Germany: A Sociolinguistic Profile of Uses and Attitudes

Kachru (1985 and elsewhere) has proposed that "sociolinguistic profiles" of countries and regions serve as a resource for the study of English language use and usage in non-native contexts. These profiles would describe the users, the functional domains, the status of English, and users' attitudes toward it. While such profiles are available for some regions and countries of Asia and Africa where English is used by non-native speakers, relatively little research is available on the use of English in Europe. This paper presents a sociolinguistic profile of English in West Germany. It offers an overview of the functional and sociocultural features of English in this non-native context, including data collected from an attitudes survey recently conducted in West Germany. The overview will focus on features of speakers' attitudes toward and use of English that distinguish English in Germany from other non-native contexts.
Teaching Communicative Competence Through Analysis of Natural Conversation

This paper considers the relevance for TESOL classes of several studies of natural conversations involving native speakers of American English in direction-giving or directive use. The direction study shows that natural direction-giving contains many other turns and parts outside of the request for directions and the actual directions; such exchanges make cognitive and interactional demands on the direction-seeker not normally taught in TESOL textbook dialogues. The directive studies present evidence on how the unmarked (expected) directive form in American English varies across situations, in association with subtle differences in relative status of participants, setting, task requested, etc.

Developing classroom materials from such studies is discussed. Unless classroom materials contain the non-fluency features and peripheral parts characteristic of real direction-giving (and other daily conversational exchanges), the learner will have little chance to develop skill in selective listening. Also, unless directive study pays attention to what form is unmarked for what situation, the learner may use syntactically well-formed directives in marked ways, and thereby appear at best stiff or too formal, and at worst rude.

English to Hmong Translation: What Communicates?

The lack of lexical items to express many Western concepts in Hmong creates special problems for translators called upon to convey educational, legal or medical information to monolingual Hmong speakers in written form. Our earlier research has shown that in the past the Hmong have borrowed terms from Chinese and Lao but have also coined Hmong expressions such as xoy too: 'wire + copper' for 'telephone' and tsev kho mcb 'house + fix sick' for 'hospital.' Yet there is no standard Hmong translation for many common American school terms such as enroll, school district, recess, spelling, library, schedule, and grade.

This study examines English-Hmong translations of school bulletins for parents from the viewpoint of how well the intended message is understood by typical parents. We first consulted with bilingual Hmong to determine whether there is consensus on the way particular English terms are rendered in Hmong. We then submitted translations of selected words and phrases to Hmong parents to obtain their judgments: whether the expressions could be understood and whether the intended meaning was conveyed. Our analysis identifies the strategies used by the translators to communicate the message to their audience, ranging from retention of English terms to coinage with parenthetical explanation, and evaluates the success of the different strategies.

Verbal and Nonverbal Strategies of Rapport

Students of discourse have approached the examination of rapport at every linguistic level, but little progress has been made in the identification of specific verbal strategies which build rapport in conversations, and how these strategies interrelate with nonverbal ones. In this paper I build on Coffman's notion of ritual and Brown and Levinson's model for politeness to identify specific verbal and non-verbal rapport-building strategies, and I show how these strategies form a part of a rapport system.

This system plays a fundamental role in organizing discourse. The discourse under investigation is drawn from a larger study of gatekeeping interviews in a university advising center. The advisors are native speakers; the students are either native speakers from Canada or Great Britain, or non-native speakers from Taiwan. Comparing the discourse strategies advisors use with NS's to those used with NNS's shows a marked difference in type of strategy and how that strategy is acknowledged by the student.
NINA GARRETT, University of Illinois at Urbana-Champaign

Is It Linguistics That We Want to Apply to Second Language Acquisition?

This paper will suggest that the field of SLA has in general not distinguished clearly enough between linguistic and psycholinguistic theory. Linguistic descriptions set out constraints on the grammaticality of utterances in a given language, and they specify relationships between utterances in that language's abstract system, but they do not describe the mental process by which speakers arrive at utterances. To add psychological validity and semantic depth to a linguistic description does not transform it into a psycholinguistic account. SLA is ultimately concerned not simply with a linguistic description of learner language but with the psycholinguistic account, the idiosyncratic processing which underlies an utterance. Some work in SLA seems to "apply" linguistics when the conceptual framework of psycholinguistics might be more useful; other work seems to have a psycholinguistic basis but is described in linguistic terms. This paper will consider whether an explicit shift to a psycholinguistic paradigm might provide greater coherence for second language acquisition research.

JUDITH A. GIERUT, Indiana University

On the Integration of Phonological Research in Speech Disorders and Second Language Acquisition

Research on both functional speech sound disorders in children and second language acquisition offers a unique testing ground for the study of phonological learning. Both fields provide descriptive, experimental, and instructional techniques for the investigation of theoretical and applied questions. Consequently, mutual benefits may obtain when the results and methodology of recent research on speech sound disorders are integrated with those of second language acquisition. In this paper, it will be shown that there are at least three areas of common concern: (1) methods of analysis and instruction, (2) aspects of experimental design, and (3) intrasubject and language-general factors that facilitate sound learning. Through case example, it will further be illustrated how these areas can be implemented in applied experimental research on phonological learning.

DORIT KAUFMAN, State University of New York at Stony Brook
S. N. SRIDHAR, State University of New York at Stony Brook

The Process of Becoming a Bilingual: Simultaneous Language Loss and Language Acquisition

Languages differ in the domains in which a reflexive can find its antecedent. In English, the reflexive 'himself' must be bound in the local domain of a subject, while, in Korean, the reflexive 'yeki' can find its antecedent locally or several sentences away. Such differences raise interesting problems for the processing of code-mixed sentences. This paper reports an experiment to study how rules of semantic interpretation from two languages interact during the process of comprehension of code-mixed sentences. In the experiment, code-mixed complex sentences with an English matrix sentence and a Korean embedded sentence containing a reflexive or vice versa were provided to 14 well balanced English Korean bilinguals. They were asked to choose the potential antecedent of the reflexive contained in the embedded sentence. The results show that the domain of reflexive binding in a code-mixed complex sentence is decided by the rule of semantic interpretation of the language used in the reflexive, regardless of languages used in the rest of the sentence. A striking fact to note is that the rule of semantic interpretation unique to one language can apply to a sentence from the other language. Implications of this experiment for the currently controversial issue of separate versus mixed grammars for bilingual processing (Sankoff and Poplack 1980, Sridhar and Sridhar 1980) will be explored.
Linguistic Theory and Bilingual Code-Mixing: Comprehension of Reflexives

Little is known about the process of language loss in the mind of the child who is acquiring a second language. A longitudinal study of the simultaneous processes of language acquisition and loss in a monolingual child placed in an L2-dominant environment has been conducted to examine the nature of the structural and functional interaction between the two languages of the evolving bilingual. The child’s language awareness and its implications on the extent of language loss is discussed and it is proposed that code blending, a highly restricted instance of intra-sentential mixing that involves a hybrid of two linguistic systems within a single lexical item, plays an important role in the simultaneous processes of language acquisition and loss. Code blending violates grammatical constraints of code mixing proposed in the literature.

SENKO K. HAYWARD, Rutgers University

Variability in Conversation Management: Fragmentation of Discourse and Back-channel Expressions in Japanese and English

Although interactive competence in Conversation Management constitutes an essential part of the speaker’s communicative competence, few studies, to date, have focused on investigation of specific linguistic and interactive strategies in a clearly defined L1/ L2 contrastive context. Based on 12 casual conversations videotaped in Japan and the U.S.A. (6 each), this paper examines two prominent characteristics of conversational language, “fragmented” quality (Chafe 1982) and functions and distributions of back-channel expressions (Yngve 1970, Schegloff 1982)—including uh huh’s and the like, brief comments and head movements—in the contrastive context of Japanese and American English.

It was found that frequent use of final particles marking fragmented utterances creates a discourse which encourages a greater degree of listener response than in American English. Although functions of back-channels are similar, the difference in frequency between the two languages (a mean frequency of 37.83 (Japanese) versus 12.17 (American) during three minute segments) is shown to be statistically significant.

Pedagogical suggestions are made in order to minimize misunderstandings and mischaracterizations of conversation participants potentially experienced by language learners at the time of intercultural, interethnic face-to-face communication.

DENISE E. MURRAY, San Jose State University & IBM Los Angeles Scientific Center

Requests at Work: Negotiating the Conditions for Conversation

This paper is based on a longitudinal study of communication in a business environment. The majority of interactions in this business environment are “conversations for action”, that is, conversations through which interactants get things done. Typically, these conversations begin with a bid for action (usually realized by a request) by one party. The requestee can accept the bid or negotiate to change the conditions of the initiating bid for action. Four validity conditions are negotiable: comprehensibility, truth, sincerity, and rightness. This paper presents a model for the opening of such conversations for action. The opening moves are represented by a transition network with the options available at each node represented by system networks. This model provides a basis for research in language education and discourse analysis.
JUDITH A. PARKER, Brown University

Focusing on Syntactic and Discourse Structure in EFL Reading Instruction

Theoretical and computational studies of syntactic structure in newspaper articles (Ducker, 1985, 1986) reveal predictable formal patterns underlying the variable content of written material. By focusing on syntactic and discourse structure in a highly stylized, formula-driven genre, teachers of intermediate and advanced ESL/EFL can help students improve both their reading comprehension and speed. After presenting theoretical motivation for including an analysis of syntax and discourse structure into a higher level reading program (e.g., Fredrickson & Wedel, 1984), this paper outlines a successful program developed for the Brown University Summer Programs in English as a Foreign Language for teaching rapid reading based on analysis of discourse structure in newspaper stories. These methods have also proved valuable in teaching dyslexic students.

Topics covered in this program include identification of specific syntactic structures, such as relative clauses and passive construction, using syntactic, lexical, semantic, pragmatic, and punctuation cues; using notions from information theory to identify new vs. old information; skimming and scanning stories before reading to increase efficiency and comprehension; decoding the lead or initial paragraph to ascertain the main facts and point of the story; increasing vocabulary by drawing upon the significant redundancy built into journalistic writing, in addition to using context; making inferences about viewpoint in written material by attending to both lexicon and discourse form. Exercises and materials suitable for teaching these skills in the classroom will be presented.

TERESA PICA, University of Pennsylvania

Negotiated Interaction as an Aid to Second Language Production

Current theories of second language acquisition, (such as those of Hatch 1978, 1983 and Long 1980, 1981, 1985, 1988), together with supportive empirical research (e.g., Gass and Varonis 1984, Pica, Young and Doughty 1986, and Varonis and Gass 1982) have highlighted the importance of NS-NNS negotiated interaction in the learner’s comprehension of L2 input. Recently, these theories have been criticized on the grounds that comprehensible input is not sufficient for successful second language acquisition, but that opportunities for the NNS to achieve more target-like output are also necessary (Swain 1985). In light of these two theoretical positions, the present study has indicated that negotiated interaction is not only a vehicle for making input comprehensible to second language learners, but that it can accommodate their production of comprehensible and more target-like output as well.

This study of twenty NS-NNS conversations showed that when utterances from one interlocutor (either the NS or NNS) triggered the other interlocutor’s negotiation moves for confirmation or clarification of these utterances, both NS and NNS responded by adjusting their production through repetition, expansion, and paraphrase. For the NNSs, these adjusted productions often contained pronunciation, syntax, grammatical morphology, or lexis which was more target-like than that of their initial utterances which had triggered the NS negotiation move.

Results of the study have expanded the contributions made by negotiated interaction in facilitating NS-NNS communication to include possibilities for both comprehensible input and output, and provide further justification for the importance which has been attributed to negotiated interaction as an aid to second language development.

TINA RAPPALDINI, DePaul University

Attrition of L2 Communicative Ability Among Former Year Abroad Students of French

This paper examines attrition of L2 communicative ability, a type of language skill loss that has not been studied before. Communicative ability is defined as the ability to use a second language functionally in real-life language use situations. The paper reports on three categories of findings: 1) the degree of stability of communicative ability after its initial acquisition 2) which aspects of the ability are most vulnerable to attrition 3) what characteristics predict which learners are most likely to suffer attrition of this ability. The sample used in this study consists of sixty American university students who began their formal language training in the U.S., completed an academic year program in a French university, and returned to the U.S. to continue work on a degree. Findings are reported on data generated by the following instruments: 1) the Oral Proficiency Interview 2) a multiple-choice situation test focusing on sociolinguistic and linguistic competence, developed by the author 3) an oral situation test, focusing on sociolinguistic and discourse competence, also developed by the author. A rating scale was devised for the latter test which isolates three components of communicative ability: ability to use sociocultural rules of use, ability to use discourse rules, and ability to use the rules of morphology, syntax and vocabulary.
Second Language Acquisition and Universal Grammar

For almost 20 years (following Chomsky 1965) much study of second language acquisition has been carried out with the assumption or outright claim that the basic processes underlying both first and second language acquisition are the same (cf. Cook 1985 and Krashen 1985). Recent formulations of this notion make use of the currently evolving theory of Universal Grammar, arguing from the module-specific assumption of linguistic knowledge (Felix 1985) and arguing that adults too are faced with the logical problem of language acquisition, just as children are (White 1985). Such formulations need to be examined seriously in light of the fundamental differences in the two language acquisition cases, differences which have not been sufficiently taken into account by many researchers, including those just mentioned. Four major areas of difference between the first and second language acquisition cases will be presented and explored: completeness, equipotentiality, previous knowledge, and fossilization. It will be argued that these differences are sufficient to remove the possibility that the underlying processes can possibly be the same in the two cases. The role of Universal Grammar in explaining how second language acquisition occurs will turn out to be much more modest than present claims indicate, with parameter setting, or resetting, as currently envisioned, an impossibility.

AMY SHELDON, University of Minnesota
TERRY L. JOHNSON, University of Minnesota

Second Language Transfer: The Interpretation of False Cognates in Swedish by Norwegians

This study looks at the ability of speakers of closely related languages to detect that phonetically similar words in the two languages are actually false cognates and cannot be used interchangeably. Norwegian speakers with limited exposure to Swedish were studied. According to the Language Distance Hypothesis (Jordens and Kellerman, 1980) and according to the more general hypothesis that L1 similarities will be transferred in the acquisition of L2, we could expect that Norwegian speakers would tend to interpret false cognates, shared by Norwegian and Swedish, as being equivalent and freely substitutable from one language to the other. The question arises as to whether there are any constraints on the interchangeability of such cognates between the two languages? We looked at the behavior of Norwegian speakers under two conditions. Task 1: Translating a list of isolated Swedish words which were false cognates. Task 2: Translating the same words from a meaningful Swedish paragraph. Test words had differing degrees of semantic relatedness. We will discuss two main results: 1) The Norwegian false cognate was supplied more often than another more appropriate translation in Task 1, and less often in Task 2. This indicates that speakers' interpretation of false cognates can be determined by the semantic limitations on the task being performed. 2) The likelihood of the speaker to supply a false cognate depended on the degree of semantic overlap between the cognate pairs. Thus, in terms of speaker behavior, distinctions between types of false cognates must be made. We will discuss the relevance of these results for a theory of language distance in L2 lexical acquisition and use.

CRAIG STIRLES, DePaul University

Evaluating Language Planning: A Procedural Outline

Most language planning (LP) research, especially case studies, has focused on LP policy formulation and implementation, and relatively little attention has been paid to evaluative analyses of existing LP policies. That is, linguists have often been able to delineate planning goals for a specific LP milieu (e.g., choice of alphabet or selection of a language of wider communication) but have not had available to them a comprehensive set of evaluative guidelines to judge a plan's successes or failures. Indeed, Das Gupta and Ferguson (1977) noted that "interest in [LP] keeps growing while the international evaluation of the experience...indicates a rather dismal record." This paper proposes a procedural outline for LP evaluation, one that incorporates a wide array of extralinguistic factors believed to enhance or inhibit success in LP policy implementation. This schema consists of five components: 1) demographic characteristics of the speech community; 2) psychological factors; 3) sociocultural factors; 4) pedagogical problems and concerns; and 5) the politico-economic climate of the community. Several subcategories exist under each component to give the model both specificity and a fair measure of explanatory power. It is argued that this evaluative schema posits a framework for isolating those linguistic and extra-linguistic factors which act as potential impediments to successful LP policy implementation. It is also argued that this schema has applicability in a number of Third World LP contexts.
ABSTRACTS

of the American Association for Applied Linguistics

symposium
Recent research has shown that effective second language reading, like effective first language reading, involves an interaction of the reader with the text. The reader engages in both top-down as well as bottom-up processing of the text, activating relevant background knowledge against which to interpret the text --- making appropriate predictions based on prior knowledge against which to selectively sample and test text segments, as well as, conversely, mapping sampled text segments against appropriately activated background knowledge.

Such an interactive view of second language reading, being derived as it has been from more general perspectives on text processing regardless of media or mode, has relevance for other areas of second language processing. These areas include the other so-called "receptive" mode in the oral medium --- listening comprehension, as well as reading's "productive" counterpart mode in the same medium --- writing. This view of second language reading also has significant implications for text processing of specialized texts in specialized situations. Further, since the interactive view of second language reading is still relatively new, the body of research undertaken thus far suggests directions for future research.

In the short time available to me, I would like to briefly explore all four of the topics suggested above:

1) Implications for research in listening comprehension
2) Implications for research in writing
3) Implications for text processing in ESP
4) Future directions for reading research

JO ANN CRANDALL, Center for Applied Linguistics

Linguistic Problems in Math: A Further Look at Math Register

Several years ago, M.K. Halliday proposed the term "math register" to account for the specific vocabulary and linguistic properties of math language. For the past two years, a research team at CAL has been working collaboratively with math departments at Metropolitan State College (Denver); Miami-Dade Community College (Miami); and Northern Virginia Community College (Alexandria) to further investigate the nature of math language--especially as it is used in algebra--and the problems which limited English proficient students face in working with that language. Since language is the medium for instruction, discussion, reading, and testing in math, its role in students' math problem-solving is critical.

A variety of methods were used to determine the nature and extent of the problem. These included interviews with students and teachers; observations of math classes; review and analysis of math texts and tests, and most importantly, a series of small group problem-solving sessions in which students were presented with math problems and then asked to solve them together. These discussions were audio-taped and later transcribed. The analysis of these think-aloud protocols

73
provided both new suggestions for investigation and confirmation of suspected difficulties at all levels of mathematics language, from lexical to discourse.

My presentation will discuss the nature of this math research and some of the specific linguistic barriers which students face in attempting to solve algebra problems. (Although ESL students were the focus of the research, English-speaking students also have difficulty with many of these linguistic features.) In addition, some peer-tutoring materials, which were developed to help ESL and "math anxious" English speaking students to become more comfortable with math language and to be able to use it to solve problems, will also be presented.

MIRIAM EISENSTEIN, New York University

The Relevance of Cross-cultural Pragmatics for ESP

English for specific purposes (ESP) involves a particular instance of second language teaching. Items and features are selected from the target language corpus that are relevant to learners whose linguistic needs are "restricted" (Strevens, 1977) since they communicate in limited settings. While it has been acknowledged that learners' needs should always guide communicative teaching (Munby, 1978), the field of ESP has made the learner's domain of second language use a major focus of curricula and pedagogy.

Coffey (1985) has reviewed the theoretical base from which ESP materials derive and includes register analysis, discourse analysis and sociolinguistic analysis. Under the latter category, he subsumes linguistic notions and functions. But Coffey stops short of considering how data on the realization of notions and functions can be collected and analyzed.

This presentation will review some of the recent studies in crosscultural pragmatics and their implications for the theoretical base from which ESP materials must be drawn. Some of the concepts and methods of current research will be considered in light of their applicability to the ESP field. Included will be speech acts (Searle, 1969), speech act sets and semantic formulas (Olshtain and Cohen, 1983), levels of directness (Bloom-Kulka and Olshtain, 1984), and the interactional nature of functions in natural discourse. Finally, evaluation of non-native speaker performance in terms of a pragmatic rating scale (Bobman and Eisenstein, 1986) will be considered.
The Discourse Communities Dilemma: Identifying Transferable Skills for EAP

Recent interest in the "discourse communities" in academic settings has sparked a certain amount of controversy among applied linguists concerned with research, syllabus design and teaching. Inspired by work in the sociology of scientific knowledge (see, e.g. Gilbert and Mulkay, 1984), in problem-solving by experts (Newell and Simon 1972; Mayer 1984), in socio-cognitive development of students (Basseches 1986) and schema-theory (Minsky 1975; Rumelhart 1984), researchers into the nature of academic thought and discourse generally conclude that expertise is discipline-specific, i.e. that conventions and approaches to academic content cannot be transferred from one knowledge community to another.

This conclusion puts EAP researchers and teachers in a bind, for they are often charged with the task of identifying and developing transferable skills and activities which are generalizable to every academic context.

In this paper, I will discuss this dilemma and present areas of research (e.g. in audience analysis, data manipulation, essay prompt construction) which can provide applied linguists with data for identifying transferable skills.

ESP in Applied Linguistics: Mariage à la mode?

Until recently the main lines of ESP/LSF research have been product-oriented: the identification of learner needs, the identification and analysis of target texts, the study of target situations. In addition there has been much experimentation - rather than research - in such areas as methodology and principles of course design. This has identified ESP, with the discourse analysis and language teaching theory aspects of Applied Linguistics. Clearly there is need for rapprochement between Second Language Acquisition (taken in the wider sense of acquiring reading and writing skills) and the in-depth contextual studies that ESP provides. This coming together benefits ESP by providing dimensions of process and interaction and benefits SLA by providing localized research sites, means of moderating general claims and ways of explaining exceptions.

However, the prospects offered in the previous paragraph are dimmed by the current divisions both within Applied Linguistics and outside it. There is as yet no "invisible college" that holds together first and foreign language researchers, ethnographers, applied linguists, ESP researchers, sociologists of knowledge etc. A high priority therefore must be to create the right kind of networks. The presentation closes with some instances of how this can be - and is being - done.
ABSTRACTS

of the American Dialect Society

regular papers
LOUIS ALVAREZ, Center for New American Media
ANDREW KOLKER, Center for New American Media

Showing and Discussion of TV Documentary "American Tongues"

AMERICAN TONGUES is a 60-minute documentary funded by the National Endowment for the Humanities. Aimed at a general television audience, it introduces American regional and social dialect differences and examines current attitudes toward language. The producers traveled from New England to Texas over a two-year period to record examples of conversation and interviews. The documentary begins with a historical overview of geographical dialect patterns; a comparison of speech in Appalachia, central Ohio, and West Texas; a sampling of lexical items from across the country, and a profile of the speech community of Tangier, Va. The second half examines attitudes toward language differences. Northerners talk about Southerners and vice versa, Black English vernacular is examined. Other topics include the role of the popular media in shaping public perceptions of dialect differences, and how some speakers of stigmatized English use their speech as a badge of identity. The apparent resurgence of regionalism and local pride is considered as it affects speech differences, and possible future developments are discussed. The producers were advised by a panel of linguists.

NANCY L. DRAY, University of Chicago

The Double Construction in English

Words and phrases in English may be repeated to form the double construction. This construction has been almost entirely neglected by linguists, although doubling is an extremely productive process that raises important questions about how people resolve the uncertainties of everyday speech. Speakers use the double construction to select or emphasize one interpretation of a word or phrase. For example:

Do you mean spicy hot, or hot hot?
I didn't make a salad salad—only a fruit salad.
We're not living together living together—we're just roommates.

But which interpretation? Base forms show considerable semantic and syntactic diversity, and a double may have different interpretations in different contexts. How is it that speakers of English are able to use and interpret this construction? I propose that the answer lies in the structural similarities between doubles and modifier-head constructions in English, and in the semantics, pragmatics, and discourse use of modifiers. In particular, I will explore the relation between doubles and various kinds of metalinguistic modifiers, including hedges.

FRANK PARKER, Louisiana State University
KATHRYN RILEY, University of Tennessee

Pronoun Case in Coordinate Constructions: Syntactic and Pragmatic Explanations

Certain restrictions on pronoun case are relaxed in coordinate NP's, especially in informal style. For example, me and myself can appear as part of a coordinate subject, and I can appear as part of a coordinate object, as shown in (1)-(2):

(1) John and me/myself went to the movies. (Cf. *He/*Myself went to the movies.)
(2) Ralph insulted both John and I. (Cf. *Ralph insulted I.)

The relative acceptability of objective case pronouns in coordinate subject NP's and nominative case pronouns in coordinate object NP's may be explainable in part by government and binding theory. If coordinate NP's are dominated by a higher NP node, then this node is an absolute barrier to government, and hence to case assignment, by TNS, V, or P.

These syntactic principles, however, do not explain why I is unacceptable as the first member of either a subject or object coordinate NP, as illustrated in (3)-(4):

(3) *I and John went to the movies. (Cf. John and I/me and John went to the movies.)
(4) *Ralph insulted both I and John. (Cf. Ralph insulted both John and I/me and John.)

This restriction on I can be explained by extending Kuno & Kaburaki's Surface Structure Empathy Hierarchy (1977), which states that I indicates high speaker self-empathy. We postulate that the initial slot in a coordinate NP also signals high speaker self-empathy. But since a coordinate NP introduces another referent, speaker self-empathy must be balanced with empathy for the other referent.
The /haːt/-/haːt/ Isogloss in New England and the History of English

The handbooks still write about a sound change [æː] > [ɐː] in the 18th century in England, but their orthoepic sources clearly indicate a coexistence of both types. The American distribution throws some light on this question.
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