LINGUISTIC SOCIETY OF AMERICA

Forty-First Annual Meeting

December 28-30, 1966

New York, New York

MEETING HANDBOOK

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INTRODUCTORY NOTE

This Handbook has been prepared by the Center for Applied Linguistics to serve as a guide to those attending the Forty-First Annual Meeting of the Linguistic Society of America, as well as to provide a permanent record of the papers presented at the meeting. It has been compiled and published with the approval of the Executive Committee of the Linguistic Society of America.

The Handbook consists of three parts: (1) the official program of the meeting; (2) the abstracts, as submitted, of the papers scheduled for delivery; (3) the abstracts of "Papers Read by Title Only". The abstracts are arranged in alphabetical order according to author, and in some cases are accompanied by handouts.

The idea for such a Handbook was suggested by the Center for Applied Linguistics in 1964 and the first Linguistic Society of America Meeting Handbook was prepared for the winter 1965 LSA meeting in Chicago.

The Center is grateful to Professor A. A. Hill for his cooperation in the preparation of this volume.

Program

PROGRAM

Forty-First Annual Meeting

of the

Linguistic Society of America

HOTEL ROOSEVELT

Madison Avenue, New York, New York 10017

December 28–30, 1966

Committee on Arrangements: William Labov, Chairman,
Marvin Herzog, Lewis Levine

PROGRAM OF THE SESSIONS

Meeting of the Executive Committee on Tuesday, December 27, at 7:00 P.M., in Conference Rooms E and F.

The registration desk will be open, in front of Conference Rooms E and F for an hour between 7:00 P.M. and 8:00 P.M.

All sessions and the Banquet will be held in the Terrace Suite.

WEDNESDAY, DECEMBER 28

8:30 A.M. Registration

9:00 A.M. FIRST SESSION, READING OF PAPERS

1. Julius Purczinsky, *Hunter College of the City University of New York:* A Reformulation of an Indo-European Sound Law: Vowel Length Resulting from Loss of a Following Syllable. (15 min.)
2. Samuel Jay Keyser, *Brandeis University:* The Linguistic Basis of English Prosody. (20 min.)
3. Karl Teeter, *Harvard University:* Evolution of the Algic Verbal System. (15 min.)
4. William G. Moulton, *Princeton University:* On the Nature of "Aux" in a Transformational Grammar of German. (20 min.)
5. William Labov, *Columbia University:* On the Grammaticality of Every-Day Speech. (20 min.)
6. John B. Carroll, *Harvard University:* On the Log-Normal Law of Word-Frequency Distribution. (15 min.)
7. E. Adelaide Hahn, *Hunter College of the City University of New York:* The Accusative of Specification in Gothic. (20 min.)

1:30 P.M. SECOND SESSION, READING OF PAPERS

8. Henrik Birnbaum, *The University of California, Los Angeles* and *The Rand Corporation:* Internal Reconstruction and Projective Prediction: Two Correlative Approaches to Diachronic Linguistics? (20 min.)
9. Albert J. Schütz, *University of Hawaii:* A Pattern of Morphophonemic Alternation in Nguna, New Hebrides. (10 min.)
10. Murray Fowler, *The University of Wisconsin:* A Latin Grammar for A Computer. (10 min.)
11. Heles Contreras, *The University of Washington:* Spanish Sandhi and Binary Features. (15 min.)
12. Emmon Bach, *The University of Texas:* Two Proposals Concerning the Simplicity Metric in Phonology. (15 min.)
13. William J. Gedney, *The University of Michigan:* Diversity Among Tai Dialects in Southern Kwangsi. (20 min.)
14. Francis T. Gignac, S. J., *Loyola University, Chicago:* Bilingualism in Greco-Roman Egypt. (20 min.)
15. John Robert Ross, *Massachusetts Institute of Technology:* Adjectives as Noun Phrases. (20 min.)

8:00 P.M. ANNUAL INFORMAL BANQUET FOR MEMBERS AND THEIR GUESTS

After the banquet the following address will be given:

PRESIDENTIAL ADDRESS by J Milton Cowan, *Cornell University:* Attention.

THURSDAY, DECEMBER 29

9:00 A.M. THIRD SESSION, BUSINESS MEETING

A. Minutes of the last meeting.

B. Report of the Secretary and action thereon.

C. Report of the Treasurer and action thereon.

D. Report of the Executive Committee and action thereon.

E. Report of the Committee on Publications and action thereon.

F. Reports of the Standing Committees, Special Committees, and Delegates and action thereon.

G. Report of the Nominating Committee and action thereon.

H. Appointment of the Committee on Resolutions.

I. Other business, proposed by any member of the Society.

10:30 A.M. FOURTH SESSION, READING OF PAPERS

16. S. Robert Greenberg, *University of California, Los Angeles:* Families of Idioms in American English. (20 min.)

17. Sanford A. Schane, *University of California, San Diego:* A Schema for Sentence Coordination. (20 min.)

18. Chin-W. Kim, *Massachusetts Institute of Technology:* On the Notion 'Optimal Opposition.' (20 min.)

19. Mary R. Haas, *University of California, Berkeley:* Grammar or Lexicon? The American Indian Side of the Problem from Duponceau to Powell. (15 min.)

20. Robert A. Peters, *Western Washington State College:* Postbases in Old English Adverb Subsets. (5 min.)

1:30 P.M. FIFTH SESSION, READING OF PAPERS

21. David L. Stampe, *The Ohio State University:* On the Theory of Phonological Admissibility, or How Do You Know You Can Say it if You Haven't Tried Yet? (20 min.)

22. Gene Schramm, *The University of Michigan:* The Correspondence of Distinctive Oppositions in Distantly Related Languages. (15 min.)

23. Ronald W. Langacker, *The University of California, San Diego:* French Possessives. (20 min.)

24. Jack A. Frisch, *State University College, Plattsburgh, New York:* Maricopa Foods: A Native Taxonomic System. (15 min.)

25. Kostas Kazazis, *The University of Chicago:* On the Phonology of Palatalized Consonantism in Modern Greek. (20 min.)

26. Henry Kahane, *The University of Illinois:* The Position of Southern Italian Greek. (15 min.)

27. Byron W. Bender, *The University of Hawaii:* Towards a Systematic Phonemicization of Marshallese. (15 min.)

28. Kenneth C. Hill, *The University of Michigan:* Some Notes on English Morphophonemics. (15 min.)

7:00 P.M. SIXTH SESSION, READING OF PAPERS

29. Robin T. Lakoff, *Harvard University:* Pre-Cartesian Linguistics. (20 min.)

30. Valdis J. Zeps, *The University of Wisconsin:* The Notion of Markedness and Latvian Accent. (10 min.)

31. Karl E. Zimmer, *The University of California, Berkeley:* 'How do You Think Questions Like This Should be Analyzed?' (15 min.)
32. Paul N. Wexler, *The University of Washington:* The Importance of Purism in the Development of Literary Languages (With Special Reference to Belorussian and Ukrainian). (20 min.)

FRIDAY, DECEMBER 30

9:00 A.M. SEVENTH SESSION, READING OF PAPERS

33. Robert D. King, *The University of Texas:* Root vs. Suffix Accent in the Germanic Present. (15 min.)
34. J. Charles Thompson, *Arlington, Virginia:* Aspects of the Chinese Verb. (20 min.)
35. Seok Choong Song, *Michigan State University:* Some Aspects of Negation in Korean. (15 min.)
36. Robert P. Illwitzer, *Georgetown University:* Vowel-Zero Alternations in a Generative Grammar of Russian. (15 min.)
37. Jeanette Johnson, *The University of Wisconsin:* Transformational Rules for Modal Verbs of Tamazight. (15 min.)
38. George Lakoff, *Harvard University:* Precyclical and Postcyclical Transformational Rules. (20 min.)
39. Anthony L. Vanek, *The University of Illinois:* On the Constituent PRO in Czech. (15 min.)
40. Robert D. Wilson, *The University of California, Los Angeles:* The Formalization of Endocentric and Exocentric Constructions. (15 min.)

Papers Read by Title Only

Robert Di Pietro, *Georgetown University:* Joycean Sentences and Transformational Rules.

Susan H. Houston, *Northwestern University:* An Examination of the Language and Communication of the Porpoise.

Louis T. Milic, *Columbia University:* Hopefully: A Special Case of Lexical Innovation.

John Nist, *Auburn University:* Needed: An Organic Linguistics

Lyn Roland, *University of California, Berkeley:* Two Models of a Unit for a Programmed Language Course.

George Simeon, *University of Southern California:* The Segmental Phonemes of Pocomam Central—A Mayan Language.

Julia Stanley, *The University of Texas Linguistics Research Center:* Qualitative Aspects of Modification in Poetic Discourse.

Gilbert Stevenson, *University of Wyoming:* Intonation Patterns and Modality.

Abstracts and Handouts

Emmon Bach, University of Texas

TWO PROPOSALS CONCERNING THE SIMPLICITY METRIC IN PHONOLOGY

There are two situations in which currently used abbreviative devices do not allow a reflection of greater generality in shorter sets of rules (measured by counting feature specifications). One such is in a rule where the same change is effected before or after a certain environment (as compared to before one environment and after a quite different one). Another is in a situation where a given rule is applied anywhere before (or after) a certain environment as compared to a change immediately before (or after) a given environment (a special case of the preceding situation). Two abbreviations and counting conventions are proposed which yield higher evaluations (lower counts) for the more general situations. Examples of such rules from a number of languages are given. Finally, historical evidence from Germanic is used to show that the proposed devices do reflect 'significant generalizations' on the hypothesis that certain phonological changes are the result of generalization of phonological rules (a hypothesis for which there is abundant independent evidence).

Byron W. Bender, University of Hawaii

TOWARDS A SYSTEMATIC PHONEMICIZATION OF MARSHALLESE

Some of the complexities of morphophonemic statements based on phonemicizations of the type termed taxonomic by Chomsky may be eliminated if one is willing to abandon the biuniqueness requirement for phonemicizing and set up instead reconstructed base forms for each morpheme. Such base forms are not always predictable from signals present in the speech event but should be translatable without exception into full representations of everything significant in their spoken manifestations by means of rules which generalize concerning morphophonemic alternations. In so far as these rules are completely general and apply as automatic phonological rules throughout the language, the symbols used in the accompanying base forms can be considered as constituting a systematic phonemicization of the language. Beyond this point, where the alternations are no longer conditioned purely phonologically, reconstructions can still furnish additional insights into the history of the language. With a systematic phonemicization of this sort, one sacrifices the ability to transcribe all utterances without additional grammatical information, but gains morphophonemic simplicity, and--in the case of Marshallese--a reduced phoneme inventory with fewer distributional limitations, a simplification of canonical forms, and explanations for some otherwise puzzling alternations.

This paper outlines a systematic phonemicization for Marshallese which is pointed to by distributional limitations and internal reconstructions, both based on a taxonomic phonemicization. This taxonomic phonemicization is presented first, and attention is called to some of its more suspicious distributional limitations. Then systematic alternations of cognate morphs are cited and the systematic phonemicization developed. It is hoped that this presentation may throw some light on possible discovery procedures for those working on parallel problems in other languages.

HANDOUT

Towards a Systematic Phonemicization of Marshallese

Consonants:	Sharp	Plain	Rounded
	p/m̀	b/m	
		k/ŋ	k̀/ŋ̀
	j/ń	t/n	ǹ
	ĺ	l	l̀
	d	r	r̀
	y		w

Vowels:	First Analysis			Second Analysis	
h	/i	ɨ	u	< i >	[ɨ]
hm	ɪ	ɨ̞	ʊ		
m	e	ə	o	< e >	[ə]
low	ɛ	a	ɔ/	< a >	

Prosodic Features:		
	/- / (a juncture)	< ´ > (an accent)

Some typical alternations:

1. /ri- ~ rɨ- ~ r̀u-/ 'person of' <ri->
   /pɨt/ 'Gilbert Is.' /ripɨt/ 'Gilbertese person' <ripiti>
   /karək/ 'poison' /rɨkarək/ 'drunk person' <rikareke>
   /wia/ 'sell' /r̀uwia/ 'merchant' <riwiyaa>
2. [...V# ~ ...V·...]
   /eńńɔ/ 'taste good' /eńńɔ-ke/[eń·ɔ·ke] 'does it taste good?'
3. [...C# ~ ...CV...]
   /ḿeń/ 'thing' /ḿeń-kɪ ń/ [ḿeńɨkɪ ń] 'these things'
4. #C_1... ~ ...C_1C_1...
   /ḿeńo-ńo/ 'breathing' /eḿḿeńo-ńo/ 'he breathes' {ḿḿeńo-ńo}
5. ...C_1# ~ ...C_1C_1...
   /kəḿat/ 'to cook' /-i/ 'them' /kəḿatti/ 'cook them' {kəḿatt}
6. ...C# ~ ...CV...
   /ŋat/ 'palate' /-ń/ 'his' /ŋatɨń/ 'his palate' <ŋati>
   /jep/ 'cheek' /jepeń/ 'his cheek' <jepe>
   /okar/ 'root' /okrań/ 'its root' <wekara>

7. ...CV_1# ~ ...CV_1V_1...

/ŋi/ 'tooth' /ŋiiń/ 'his tooth' <ŋiyi>

/ńe/ 'leg' /ńeeń/ 'his leg' <ńeye>

/lo/ 'tongue' /looń/ 'his tongue' <lewe>

/wa/ 'canoe' /waań/ 'his canoe' <waa>

8 (C)V_{hm}C# ~ (C)V_hCV_m...

/ɪm/ 'house' /imәń/ 'his house' <yime>

/pɨt/ 'pillow' /pɨtәń/ 'his pillow' <pite>

/ʊb/ 'chest' /ubәń/ 'his chest' <wibe>

9. (C)V_{hm}C# ~ (C)V_mCV_h...

/bʊk̀/ 'bladder' /bok̀ɨń/ 'his bladder' <bek̀i>

10. ...V_{hm}# ~ ...V_hV_m...

/bʊk̀ɪ/ 'knee' /bʊk̀ień/ 'his knee' <bik̀iye>

11. ...V_{hm}# ~ ...V_mV_h...

/kɪ-kɪ/ 'sewing' /kɪ-keiń/ 'her sewing' <keyikeyi>

12. ...V_{hm}C# ~ ...V_hCV_m...

/dɨbdɨb ~ dɨbәj/ 'to husk' <dibedibe ~ dibeje>

13. ...V_{hm}C# ~ ...V_mCV_h...

/jɨkjɨk ~ jәki/ 'to chop' <jekijeki ~ jekiyi>

14. V_hC_1 + {redup} > V_hC_1-$V_{hm}C_1$

/ur-ʊr ~ urәt/ 'to kill' <wiréwire ~ wirete>

15. ...V_mC_1 + {redup} > V_mC_1-$V_{hm}C_1$

/mooĺ/ 'true' /kammooĺ-ʊĺ/ 'verify' <meweĺí> <kamemeweĺíweĺi>

16. (C_1)V_{low}(C_2) + {redup} > (C_1)V_{low}(C_2)-(C_1)V_{hm}(C_2)

/k̀ɔl ~ k̀ɔlk̀ʊl/ 'wash' <k̀alj ~ k̀alik̀eli (<k̀alik̀ali)>

/ɛń-ɪń/ 'to bail ' <yańíyeńi>

/dәkɛ/ 'stone' /dәkɛ-kɪ/ 'stony' <dekayi> <dekayikeyi>

/k̀ɔɔt/ 'steal' /k̀ɔɔt-ʊt/ 'stealing' <k̀awatí> <k̀awatíweti>

17. (C)V_{low}C# ~ (C)V_mC_{low}...

/ḿɛj/ 'eye' /ḿejań/ 'his eye' <ḿeja>

/bar/ 'head' /bәrań/ 'his head' <bera>

/lɔŋ̀/ 'roller' /loŋ̀ań/ 'its roller' <leŋ̀a>

18. /kɨńej/ 'wound' /kɨńjɛń/ 'his wound' <kińejá>

Henrik Birnbaum, University of California, Los Angeles & RAND

INTERNAL RECONSTRUCTION AND PROJECTIVE PREDICTION: TWO CORRELATIVE APPROACHES TO DIACHRONIC LINGUISTICS?

The realization that synchrony does not preclude certain dynamics inherent in a language system (or parts thereof) has led linguists to interpret language development (diachrony, linguistic change) on the basis of synchronic data. In particular, inferences based on synchronic data from a single language have been increasingly utilized for the purpose of recovering unrecorded developments of protolanguages as well as lost stages in the (pre)history of individual languages. This method, known as internal reconstruction, has already yielded significant results in phonemics and morphophonemics while its power has not yet been sufficiently tested on other levels of language. Generally, the outcome of internal reconstruction has been used to supplement and corroborate such reconstruction as has been arrived at by the comparative method. Recently, however, the non-accidental parallelism obtaining between relative chronology of phonological change (as established largely by means of internal reconstruction) and the order of generative ("rewrite") rules (on the morphophonemic level) was emphasized and some of its implications discussed. The application of ordered "rewrite" rules for the purpose of generating synchronically observable morphophonemic alternations (or, rather, forms showing such alternations) can, with certain qualifications, be considered a way of predicting forthcoming linguistic change. Since the subsequent results are known, the validity of the procedure can be checked and inadequacies rectified. The question is now raised whether projective prediction of linguistic change can be based on synchronically ascertainable data in the present, thus allowing one to view internal reconstruction and projective prediction as two partly correlative approaches to diachronic linguistics (both being based on the dynamics of synchrony, though pointing in opposite directions of the time axis). While reconstruction (internal as well as comparative) falls largely into the realm of genetic

linguistics, concerned with language divergence (from a protolanguage into separate descendent languages), predictability of future language development seems to find its application particularly in the field of typological linguistics, and more specifically in the domain of areal-typological linguistics, investigating, inter alia, language convergence (within certain convergence areas or Sprachbünde). Some of the above theoretical considerations are illustrated by examples taken from Balto-Slavic and Balkan linguistics.

John B. Carroll, Harvard University

ON THE LOG-NORMAL LAW OF WORD-FREQUENCY DISTRIBUTION

Evidence presented by Herdan, Howes, and others that word probabilities are log-normally distributed is supplemented with reference to the Corpus of one million English words assembled by Francis and Kučera. It is shown that a log-normal distribution with given mean and variance implies a finite rather than an infinite number of word-types in the theoretical population as well as a definite distribution of frequencies of word-types. Further, it is shown that when finite samples are drawn from the population, the means and variances of such samples are systematically biased and there are systematic deviations from the log-normal distribution. This statistical development results in a definite solution for the problem of the type-token function (the number of types as a function of the number of tokens in a sample), and also in a procedure for estimating the characteristics of the population from which a sample of a given size may be regarded as being drawn and for testing the goodness of fit between observed and predicted data. It is claimed that the log-normal law is a more satisfactory account than Zipf-Mandelbrot formulations.

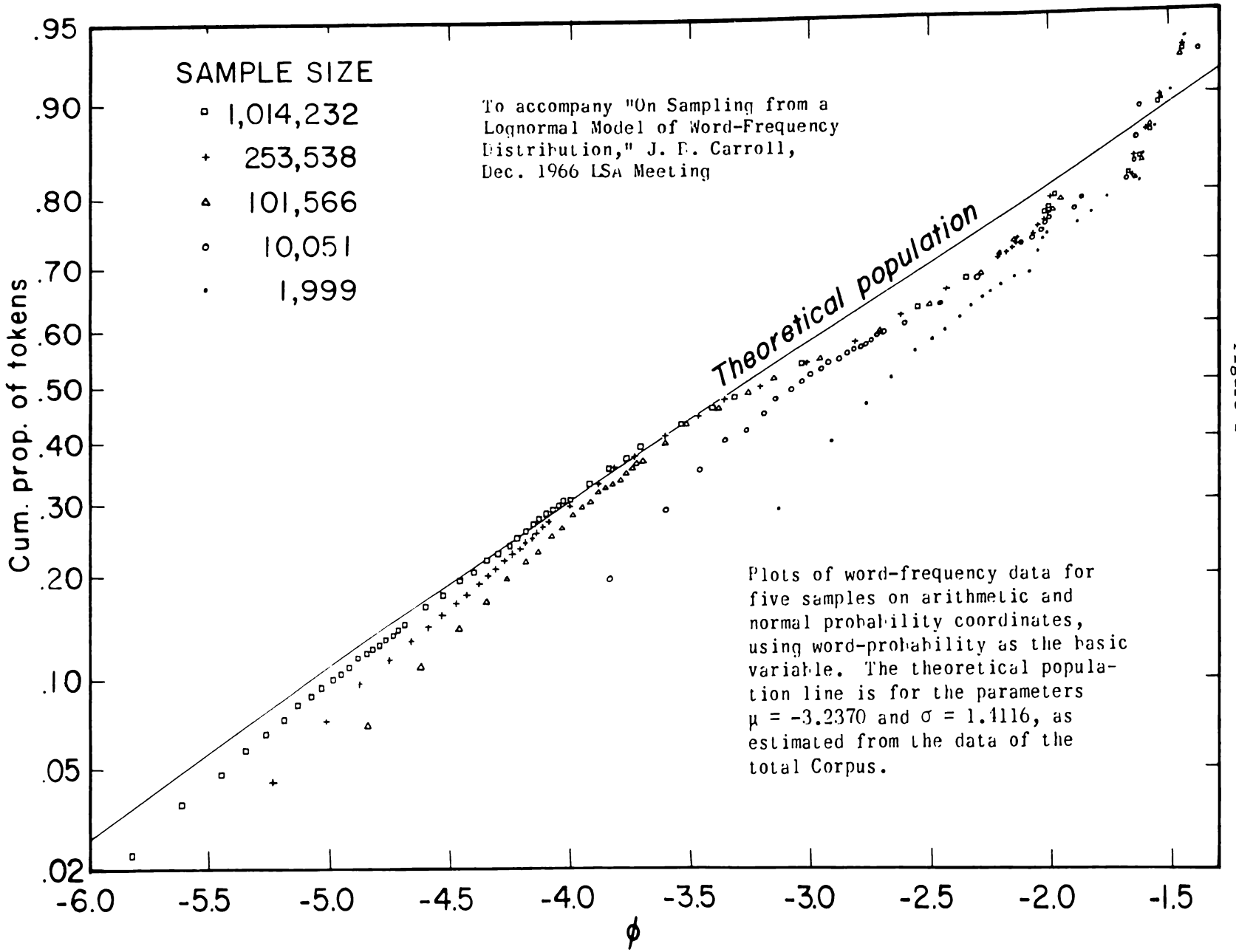

SAMPLE SIZE
1,014,232
253,538
101,566
10,051
1,999
To accompany "On Sampling from a Lognormal Model of Word-Frequency Distribution," J. B. Carroll, Dec. 1966 LSA Meeting
Theoretical population
Cum. prop. of tokens
.95
.90
.80
.70
.60
.50
.40
.30
.20
.10
.05
.02
-6.0
-5.5
-5.0
-4.5
-4.0
-3.5
-3.0
-2.5
-2.0
-1.5
ϕ
Plots of word-frequency data for five samples on arithmetic and normal probability coordinates, using word-probability as the basic variable. The theoretical population line is for the parameters μ = -3.2370 and σ = 1.4116, as estimated from the data of the total Corpus.

Figure 1

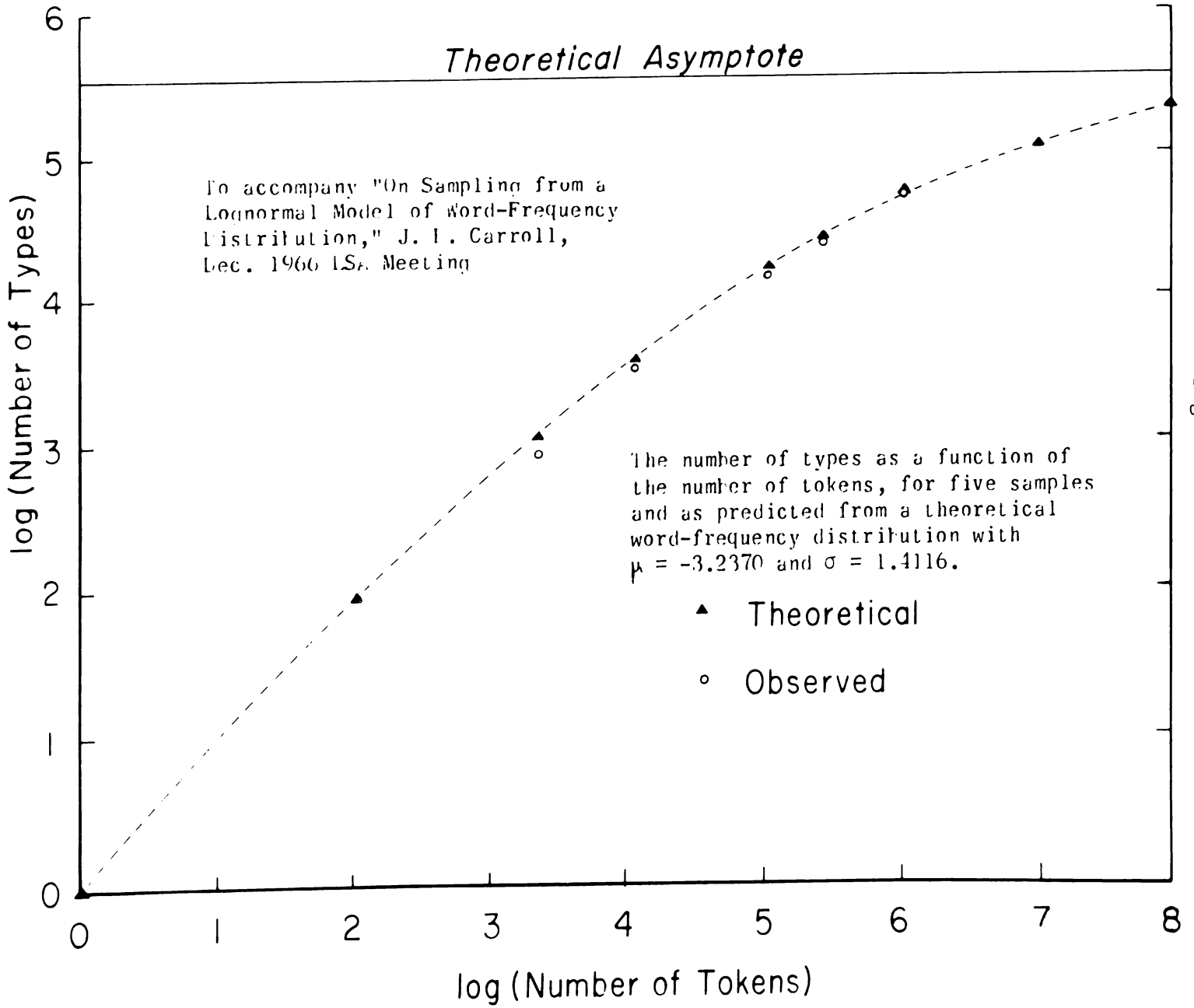

Theoretical Asymptote
To accompany "On Sampling from a Lognormal Model of Word-Frequency Distribution," J. B. Carroll, Dec. 1966 ISA Meeting
The number of types as a function of the number of tokens, for five samples and as predicted from a theoretical word-frequency distribution with μ = -3.2370 and σ = 1.4116.
Theoretical
Observed
log (Number of Types)
log (Number of Tokens)
0
1
2
3
4
5
6
7
8

Figure 2

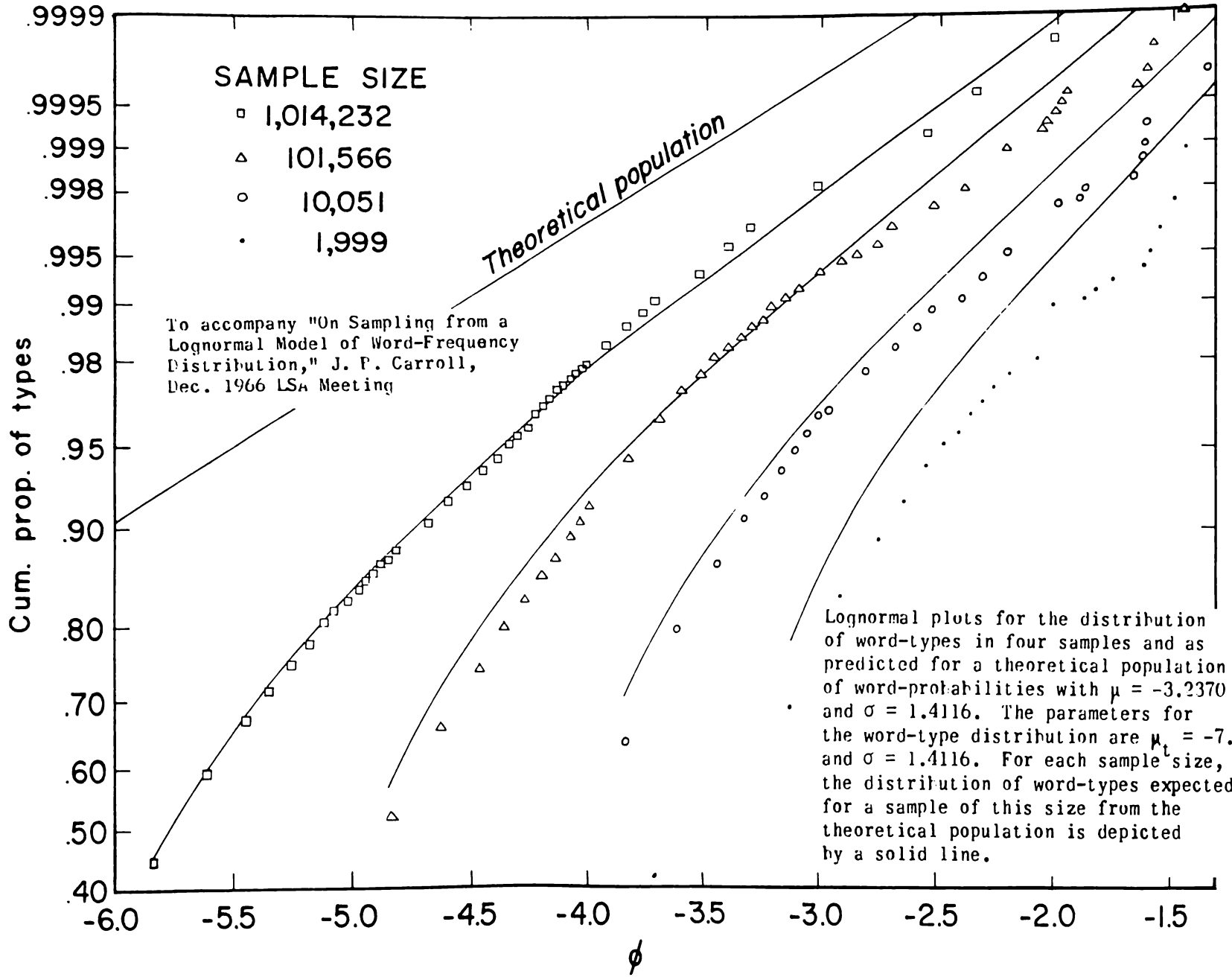


Figure 3

Lognormal plots for the distribution of word-types in four samples and as predicted for a theoretical population of word-probabilities with $\mu = -3.2370$ and $\sigma = 1.4116$. The parameters for the word-type distribution are $\mu_t = -7.8252$ and $\sigma = 1.4116$. For each sample size, the distribution of word-types expected for a sample of this size from the theoretical population is depicted by a solid line.

Heles Contreras, University of Washington

SPANISH SANDHI AND BINARY FEATURES

It has been suggested by Jakobson, Halle and others that there are some advantages to treating all phonetic features as binary.

The problem discussed in this paper suggests, on the other hand, that at least in some cases, a more economical and intuitively satisfactory formulation is attained with non-binary features.

In Spanish, vowels across word boundaries may become semivowels, given some conditions. These conditions seem to be: a) stress; b) identity of features other than stress; c) degree of height. While the first two pose no problem for a binary treatment, the third one does. It does not seem possible, within a binary feature fromework, to give a rule that will reflect the simple verbal statement: 'If two vowels differ in degree of height, the highest one becomes a semivowel.'

A treatment which is not restricted to binary features does make such a statement possible. Thus,

$$[+\text{ vocalic}] \rightarrow [-\text{ vocalic}] \;/\; \begin{bmatrix} -\text{ stress} \\ n\text{ compact} \\ \underline{\qquad} \end{bmatrix} \quad \# \quad \begin{bmatrix} +\text{ vocalic} \\ -\text{ consonantal} \\ m\text{ compact} \end{bmatrix}$$

where $n < m$, n and m being variables for different degrees of the feature <u>compact</u>.

HANDOUT

Spanish Sandhi and Binary Features

I

(1)	casa humilde	'modest house'	[kasa̯umilde] or [kasumílde]; not * [kasaumílde];
(2)	café helado	'cold coffee'	[kafeláḍo]; not * [kafeeláḍo];
(3)	casa alta	'tall house'	[kasaálta] not * [kasálta];
(4)	autor	'author'	[autór]; not * [utór];
(5)	caso humano	'human case'	[kasou̯máno] or [kasumáno];
(6)	caso ilustre	'illustrious case'	[kasoi̯lústre]; not * [kasilústre];
(7)	mi hilo	'my thread'	[miílo]; not * [mílo];
(8)	casi imposible	'almost impossible'	[kasimposíḅle];
(9)	nuez	'nut'	[nu̯és];
(10)	no es	'it is not'	[noés] or [no̯és].

II

A. V̆#V̆

a. $V_1 = V_2 > \breve{V}$

puente estrecho 'narrow bridge'[pu̯entestréc̆o];

b. V_1 as high or higher than V_2 > VV

todo entero 'all of it' [toḍo̯entéro];

c. V_1 lower than V_2

(i) One V is front, the other back > V̯V

caso ilustre 'illustrious case' [kasoi̯lústre];

(ii) Otherwise > VV̯ or V_2

caso humano 'human case' [kasou̯máno] or [kasumáno];

casa humilde 'modest house' [kasa̯umílde] or [kasumílde].

B. V́#V̆

a. $V_1 = V_2 > V$

está armado 'he is armed' [estármàḍo];

b. V_1 as low or lower than V_2 > V́V̯

está hirviendo 'it is boiling' [estái̯rḅi̯èndo];

ganó Esteban 'Stephen won' [ganóe̯stèḅan];

c. V_1 higher than V_2 > V́V (or possibly V̲V́)

esté alerta 'be on the alert' [estéalèrta] (or [este̲álèrta]).

C. V̌#V́

a. $V_1 \neq V_2$, V_1 as high or higher than V_2 > V̲V́

su hija 'his daughter' [su̲íxa];

su alma 'his soul' [su̲álma];

b. Otherwise, no change

casa alta 'tall house' [kasaálta];

la hija 'the daughter' [laíxa].

D. V́#V́

There is no change.

vendrá antes 'he will come before' [bendràántes];

comí otro 'I ate another one' [komìótro];

está hecho 'it is done' [estàéčo].

III

(1) $\begin{bmatrix} -\text{stress} \\ X \end{bmatrix} \rightarrow \emptyset \,/\, \begin{bmatrix} \pm \text{ stress} \\ Z \end{bmatrix} \#$

where X = Z, X and Z representing any set of features.

(2) $[+\text{voc}] \rightarrow [-\text{voc}] \,/\, \begin{bmatrix} +\text{diffuse} \\ -\text{stress} \\ \_\_\_\_\_ \end{bmatrix} \# \begin{bmatrix} +\text{vocalic} \\ -\text{consonantal} \end{bmatrix}$

(3) $[+\text{voc}] \quad [-\text{voc}] \,/\, \begin{bmatrix} -\text{diffuse} \\ -\text{compact} \\ -\text{stress} \\ \_\_\_\_\_ \end{bmatrix} \# \begin{bmatrix} -\text{diffuse} \end{bmatrix}$

(4) If V_1 is unstressed and is as high as or higher than V_2, V_1 becomes a semivowel.

(5) [+vocalic] → [-vocalic] in the env. $\begin{bmatrix} \text{-stress} \\ \text{n compact} \\ \underline{\quad\quad} \end{bmatrix} \# \begin{bmatrix} \text{+vocalic} \\ \text{-consonantal} \\ \text{m compact} \end{bmatrix}$

where $n \leq m$, n and m being variables for different degrees of the feature compact.

(6) $\begin{bmatrix} \text{-stress} \\ \langle\alpha \text{ grave}\rangle \\ \text{n compact} \end{bmatrix} \rightarrow \emptyset$ in the env. $\underline{\quad\quad} \# \begin{bmatrix} \text{-stress} \\ \langle\alpha \text{ grave}\rangle \\ \text{m compact} \end{bmatrix}$

where n>m.

(7) [+vocalic] → [-vocalic] in the env. $\begin{bmatrix} \text{+vocalic} \\ \text{-consonantal} \\ \text{n compact} \end{bmatrix} \# \begin{bmatrix} \text{-stress} \\ \text{m compact} \\ \underline{\quad\quad} \end{bmatrix}$

where n > m.

Murray Fowler, University of Wisconsin

A LATIN GRAMMAR FOR A COMPUTER

A computer-oriented grammar of the Latin language has been constructed consisting of partially ordered sets of morphological and syntactic rules to the products of which a fully ordered set of phonological rules is applied.

The morphological and syntactic components are combined in one branching tree diagram. All choices are binary. Categories which by nature offer other than binary choices, such as the ternary choice in the category of person, are made binary by opposing one member to the residue and dissolving the residue similarly at successive lower nodes until none remains. The first node branches to the right for morphology and to the left for syntax. All right branches are numbered 2, all left branches 1. 2 branches are searched before 1 branches.

The input to the morphological component is a stem chosen from a dictionary. Stems are sometimes artificial forms. They are marked in the dictionary with colligation and collocation markers. Colligation markers are alphabetical, collocation markers numerical, with the numbers taken from Roget's Thesaurus. Since the supply of collocation markers is infinite, metaphor is provided for. The input to the syntactic component is a word or a string of words produced by the morphological component.

The phonological rules are not part of the tree. All outputs from the tree structure are run through all the phonological rules.

Initial programing was done by Alicia Towster and Edwin Towster. The program is written in Fortran.

At the date of this abstract (August 15, 1966), any form of any noun, verb, adjective, or adverb of which the stem is stored in the dictionary can be produced. Certain co-occurrence relations have been formalized and assigned colligation and collocation markers, but these have not yet been translated into the Fortran version.

Jack A. Frisch, State University College, Plattsburgh, New York

MARICOPA FOODS: A NATIVE TAXONOMIC SYSTEM

The major portion of research in "ethnoscience" has been confined to the domain of kinship and has focused upon componential analysis as a tool for discovering the folk taxonomy underlying the kinship relations within a particular society. The study of native taxonomic systems is by no means limited to the analysis of kinship. Recent studies in other domains have demonstrated that the study of folk taxonomies is a reliable approach to the ethnographic description of a particular culture.

Taxonomic systems employed by natives for classifying foods are but one illustration of the importance of the ethnographic study of linguistically defined domains. Not only is food a linguistically defined domain to the Maricopa Indians; it is also a semantically defined domain. By using some of the principles of structural semantics and ethnographic description, the native system underlying the classification of foods for the Maricopa Indians will be shown. Areas of linguistic and cultural change are brought to light by this analysis.

William Gedney, University of Michigan

DIVERSITY AMONG TAI DIALECTS IN SOUTHERN KWANGSI

Several scholars have suggested in recent years that the site of the parent language of the Tai family may have been somewhere along the eastern part of the present border between China and North Vietnam, or on one side or the other of it. One reason for this surmise is an impression of greater diversity in this area than in other parts of the Tai-speaking domain, implying longer settlement. Until now, however, this alleged diversity has scarcely been documented, especially for the area on the Chinese side of the border. Fieldwork in Hongkong in the summer of 1966 has now provided detailed data on five dialects from Southern Kwangsi. These five dialects, together with the Tai dialect of Lung-chow which F.K. Li described in his monograph of 1942, are geographically fairly close to one another, and clearly belong to the same branch of the Tai family, yet they show perhaps even greater diversity than scholars have suspected. This diversity is exhibited in the tonal systems, in the treatment of initial consonants and consonant clusters, in the vowel systems, and even in final consonants, which in other Tai languages display great conformity. The purpose of this paper is to exhibit these types of diversity among these six dialects, in order to provide students of the problem of the location of proto-Tai with specific evidence for the argument from linguistic diversity.

Francis T. Gignac, S.J., Loyola University, Chicago

BILINGUALISM IN GRECO-ROMAN EGYPT

In the course of a comprehensive linguistic description of a corpus of more than 20,000 non-literary Greek papyri from Egypt, I found ample evidence in phonology and syntax for a hypothesis of bilingual interference, which can reconcile many apparently conflicting Koine Greek phenomena, especially in the field of phonology. The phonemic system of those papyri showing maximum bilingual interference compared with the contemporary systems of Greek unaffected by foreign influence illustrates that the anomalies in the phonology of the papyri have no adequate explanation in terms of the Greek language alone. This phonemic system of the papyri then contrasted with that of contemporary Coptic shows that the phonemic mergers and splits observed in the papyri can be explained on an hypothesis of bilingual interference as underdifferentiation or overdifferentiation of phonemes. As a corollary, the reconciliation of the apparently discrepant evidence delimits the extent to which orthographic variation can be used to determine the pronunciation of a dead language, and leads to a clearer understanding of the advantages of a structural approach to languages in contact.

S. Robert Greenberg, University of California, Los Angeles

FAMILIES OF IDIOMS IN AMERICAN ENGLISH

This paper builds upon Prof. Weinreich's 1966 Linguistic Institute Forum Lectures on idiom analysis. However, where Weinreich maintained that idioms could not be effectively analyzed (and proposed essentially a look-up system for items already identified as idioms), the present paper proposes a method for analyzing idioms in terms of idiom families. The main family to be discussed is the American English "hit" family, containing such items as

He hit the sack, He hit the road, He hit the bottle, etc.

This group of expressions is analyzed as a family of idioms centering about the verb "hit", and this verb is itself analyzed in terms of a Jakobsonian "definition-by-extension", in which certain properties are taken as central to the meaning of the verb "hit", and others are derived through quite small extensions of the original meaning. To make the point more clear, a brief analysis is given of a very similar, and much more recent family, the "blow" family, as in

He blew his cool, He blew his mind, He blew the game, etc.

The last section of the paper will go beyond semantic analysis to deal with idioms as a stylistic phenomenon in terms of a system being developed by the present writer in which there is hypothesized a stylistic component of the grammar, attached to the semantic component, and utilizing information from the syntactic component in a manner similar to that specified by Chomsky and others. Explanations will be proposed for certain stylistic limitations on idioms, such as their inability to undergo some transformations, as in

*His hitting of the sack, *His hitting of the road, etc.

Throughout this analysis, both formal and semantic properties are utilized in the attempt to sharpen boundaries of meaning.

Mary R. Haas, University of California, Berkeley

GRAMMAR OR LEXICON?: THE AMERICAN INDIAN SIDE OF THE PROBLEM FROM DUPONCEAU TO POWELL

In the late 19th century D. G. Brinton and J. W. Powell were in keen competition to present a classification of the American Indian languages in toto. Each takes a positive stand on the criteria to be used. Brinton's: "Wherever the material permitted, I have ranked the grammatic structure of a language superior to its lexical elements in deciding upon relationship." Powell's: "The evidence of cognation is derived exclusively from vocabulary. Grammatic similarities are not supposed to furnish evidence of cognation, but to be phenomena, in part relating to stage of culture and in part adventitious."

The number and diversity of American Indian languages rendered some kind of classification a necessity. In hundreds of instances only vocabularies were available so lexicon by necessity was the only possible basis of classification. In addition two quite different theories which achieved prominence in the 19th century also upset the balance and likewise rendered vocabulary the only basis of classification. In 1819 Stephen Duponceau theorized that the languages "from Greenland to Chile" had "a uniform system" of structure which he labelled "polysynthetic." His theory was widely accepted for a time, but it clearly left the classifier with nothing but lexicon as a basis for differentiating linguistic families. Duponceau himself recognized this. No sooner had Duponceau's theory of New World oneness lost its force than Morgan's theory of stages of cultural evolution (1877) took over. Powell enthusiastically adopted this idea for languages also, but with the same result.

E. Adelaide Hahn, Hunter College of the City University of New York

THE ACCUSATIVE OF SPECIFICATION IN GOTHIC

Most Gothic grammarians (e.g. Streitberg) ignore the accusative of specification; only Bernhardt (copied by Wright) recognizes it. The examples cited (both denoting body-parts) are Jn. 11.44 "bound as to hands and feet with graveclothes", and Eph. 6.14 "girt as to your loins in truth". Wulfila's accusatives may be due to his datives for 'graveclothes' and 'truth'. In Eph. 6.15 (parallel to 6.14) "bound as to the feet in the preparation of the gospel of peace", he uses a prepositional phrase for 'in preparation', and the simple dative for the original Greek accusative 'feet'. (Jerome uses the accusative of specification in all three passages, though this is unusual in Latin; the Old English translations of the Vulgate substitute the dative. Wulfila's accusatives may be "translation Gothic".) The NT also has the accusative in Mk. 8.36 "to suffer loss in soul", Lk. 4.18 "broken in heart", 1 Tim. 6.5 and 2 Tim. 3.2 "corrupt in mind"; in all these Wulfila substitutes the dative. For 'in name' Koine Greek usually employs the dative of specification as in Lk. 23.50-1 "behold, a man Joseph in name, from Arimathaea"; but we probably have the accusative once, Mt. 27.57 "there was a rich man from Arimathaea, Joseph in the name" (the article with 'name' need not trouble us; the NT is inconsistent in inserting or omitting the article). But Wulfila renders this quite differently, with 'name' as subject of a nominal clause, and the genitive demonstrative thizuh added: "there came a rich man from Arimathaea, his name (was) Joseph". If onoma 'name' were a subject in the original Greek, we would expect an accompanying pronoun, dative as in Jn. 1.6 "there was a man, the name to him (was) John" (demonstrative) and Lk. 8.41 "there came a man to whom the name was Jairus" (relative), or (more rarely) genitive as in Lk. 1.5 "his wife was (one) of Aaron's daughters, and the name of her was Elizabeth" (demonstrative) and Mk. 14.32 "to a place of which the name was Gethsemane" (relative). Wulfila where he finds a dative regularly substitutes a genitive which is understandable; but adding a genitive in Mt. 27.57 suggests that he either did not recognize onoma as an accusative of specification, or

deliberately substituted a wholly different construction; either state of affairs indicates that the accusative 'in name' was wholly alien to his idiom.

HANDOUT

The Accusative of Specification in Gothic

1. Jn. 11.44 dedemenos tous podas kai tas cheiras keiriais
2. ligatus pedes et manus institis
3. gabundans handuns jah fotuns faskjam
4. Eph. 6.14 perizōsamenoi tēn osphyn humōn en alētheiai
5. succincti lumbos vestros in veritate
6. ufgaurdanai hupins izwarans sunjai
7. Eph. 6.15 hypodēsamenoi tous podas en hetoimasiai tou Euaggeliou tēs eirēnēs
8. calceati pedes in praeparatione Evangelii pacis
9. jah gaskohai fotum in manwithai aiwaggeljons gewairthjis
10. Mk. 8.36 ean zēmiōthēi tēn pyschēn autou
11. si detrimentum animae suae faciat
12. gasleitheith sik saiwalai seinai
13. Lk. 4.18 tous syntetrimmenous tēn kardian
14. sanare contritos corde
15. thans gamalwidans hairtin
16. 1 Tim. 6.5 diephtharmenōn anthrōpōn ton noun
17. hominum mente corruptorum
18. frawardidaize manne ahin
19. 2 Tim. 3.8 anthrōpoi katephtharmenoi ton noun
20. homines corrupti mente
21. mannans frawaurthanai ahin
22. Hebr. 10.22 errantismenoi tas kardias kai leloumenoi to sōma
23. aspersi corda et abluti corpus
24. Lk. 1.5 hiereus tis onomati Zacharias
25. sacerdos quidam nomine Zacharias
26. gudja namin Zakarias
27. Mt. 27.57 ēlthen anthrōpos plousios apo Arimathaias, tounoma Iōsēph
28. venit quidam homo dives ab Arimathaea, nomine Joseph
29. qam manna gabigs af Areimathaeas, thizuh namo Iosef
30. Lk. 23.50-51 anēr onomati Iōsēph, apo Arimathaias
31. vir nomine Ioseph, ab Arimathaea
32. Jn. 1.6 anthrōpos apestalmenos para Theou, onoma autōi Iōannēs
33. homo missus a Deo, cui nomen erat Ioannes

34. Lk. 8.41 ēlthen anēr hōi onoma Iaeiros

35. venit vir cui nomen Iairus

36. qam wair thizei namo Iaeirus

37. Lk. 1.5 gynē autōi ek tōn thygaterōn Aarōn, kai to onoma autēs Elisabet

38. uxor illius de filiabus Aaron, et nomen eius Elisabeth

39. qeins is us dauhtrum Aharons, jah namo izos Aileisabaith

40. Mk. 14.32 eis chōrion hou to onoma Gethsēmanē

41. in praedium cui nomen Gethsemani

42. Mk. 15.43 Iōsēph ho apo Arimathaias

43. Jn. 19.38 ho Iōsēph ho apo Arimathaias

Kenneth C. Hill, University of Michigan

SOME NOTES ON ENGLISH MORPHOPHONEMICS

Two rules account for a variety of English vowel alternations. In terms of an underlying system, one feature, ±Tense, differentiates the following alternants: slī́yp - slĕ́pt; ɨs(y)ū́wm - ɨsə̆́mpšɨn; hū́wvz - hŭ́f; bā́yt - bĭ́t; sā́wθ - sə̆́ðr̩n; bḗyð - bǽ̆θ; gɔ̄́w - gắn. The underlying system is:

	y	w	ĕ	ē	ĭ	ī	æ̆	ǣ	ŏ	ō	ø̆	ø̄	ŭ	ū	ɔ̆	ɔ̄	
	–	–	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Vocalic
	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Consonantal
	–	+	–	–	–	–	–	–	+	+	+	+	+	+	+	+	Flat
	0	0	–	–	–	–	+	+	–	–	–	–	–	–	+	+	Compact
	0	0	–	–	+	+	0	0	–	–	–	–	+	+	0	0	Diffuse
	0	0	0	0	0	0	0	0	–	–	+	+	0	0	0	0	Acute
	0	0	–	+	–	+	–	+	–	+	–	+	–	+	–	+	Tense

The rules are as follows (with the qualification that given +Compact, Diffuse is necessarily zero):

1)

+		+	–	Vocalic
–		–	–	Consonantal
α	→	0	α	Flat
β		γ	0	Compact
γ		β̄	0	Diffuse
+		+	0	Tense

2)

+		+	Vocalic
–		–	Consonantal
α	→	0	Flat
β			Diffuse
γ		ᾱ	Acute
–		–	Tense

if β = γ, then + Diffuse
β ≠ γ, then – Diffuse

Such that: ē → īy, ī → āy, ǣ → ēy, ŏ → ɨ̆, ō → ɨ̄w, ø̆ → ə̆, ø̄ → īw, ŭ → ə̆, ū → āw, ɔ̆ → ă, ɔ̄ → ə̄w, and ĕ, ĭ, æ̆ remain.

Later rules, depending on the dialect in question, account for such facts as the realization of īw as (y)uw; the rounding of the higher -Acute vowels; the realization of various lax vowels plus r as ɚ, e.g. hĕ́rd → hɚ́d (heard); and the simplification of certain tense vowel nuclei before r, e.g. hī́yr → hír (hear).

Robert P. Illwitzer, Georgetown University

VOWEL-ZERO ALTERNATIONS IN A GENERATIVE GRAMMAR OF RUSSIAN

Certain morphemes display an alternation, symbolized by #, between a vowel and zero. Klagstad (Dissertation, Harvard University, 1954) has shown that the presence, location, and ultimate phonological result of # can be predicted in most cases from general grammatical and phonological information. Halle (Sound Pattern of Russian) proposed that where the presence of # cannot be predicted, # be part of the lexical entry. Presumably, other instances are added by morpheme-structure rules; subsequent rules delete # or convert it to a specific vowel. Halle further proposed that # is simply an incompletely specified segment: vocalic and nonconsonantal, with zeroes for other features.

Under this proposal, however, a zero must be interpreted as different from a plus or minus; otherwise, the rules which apply to # will also apply (incorrectly) to any vowel. Since this contradicts a fundamental assumption, four alternative treatments and their effect on the grammar are examined: insertion of features in a segment via rule, inclusion of dummy features in a segment, inclusion of non-phonemic segments in a matrix, inclusion of non-phonemic features in a segment. The first and second violate present conventions in generative grammar; the third and fourth, of which the fourth is somewhat more economical and historically more correct, do not.

Jeanette Johnson, University of Wisconsin

TRANSFORMATIONAL RULES FOR MODAL VERBS OF TAMAZIGHT

The modal verb stems of Tamazight are derived by prefixation of one of the modal morphemes (/s-/ causative, /m-/ reciprocal, and /t:u-/ passive) to a base which may be a stem in a different mode (but not passive), or a basic stem. As a process of derivational morphology, while productive, it is typically irregular: lexical entries must be marked for their propensity for each mode. Quite regular, however, are the relationships between elements of sentences containing the modal verbs, and elements of sentences containing their bases. These regular relationships (for example, the subject of a passive verb corresponds to the direct object of its base), can and should be stated in the grammar.

Statement of such relationships in the context of a generative grammar poses a theoretical problem. The generalized transformational rule for each mode embeds in a matrix containing a verb stem which has the feature permitting it to occur in this mode, and sentence structure having the complement required by the modal verb. The rules specify identity conditions and deletion operations to result in a surface structure containing the modal verb. The problem is what element to select for the category of verb in the embedded sentence: a dummy or pro-verb, or a "real" verb which occurs independently of this transformation. If the latter, the choice is somewhat arbitrary, since the T-rule deletes the verb of the embedded sentence; all that is required of it is the complement structure required by the modal verb. Thus for the passive transformation, any intransitive verb which is selectionally compatible with the direct object of the matrix sentence would serve. This arbitrariness can be avoided by using as a pro-verb a lexical item which has the semantic features of the mode, but is restricted by rule feature to occurrence only with a verb which permits it, i.e. to the modal T-rule.

Henry Kahane, University of Illinois

THE POSITION OF SOUTHERN ITALIAN GREEK

The Greek enclaves in Southern Italy have been a riddle, lively debated, to historical linguists: they were explained either as a continuation of ancient Magna Graecia Greek or as a new medieval Byzantine import. I plan to review concisely the more important diachronic criteria of phonology and syntax (such as the preservation of geminates and the partial preservation of the infinitive) and to point out their frequent inconclusiveness. Nor is the geographical distribution a decisive proof: although within the total distribution of Hellenisms, reaching from Micrasiatic to Massaliotic Greek, the Southern Italian area reveals itself as a typically marginal dialect, the commonness of linguistic features may have been due to either ancient heritage or common medieval colonization. A synchronic analysis, on the other hand, shows a strongly Byzantine character of the dialect group: this is most evident in the lexicon. It reflects to a large degree medieval usage.

Kostas Kazazis, University of Chicago

ON THE PHONOLOGY OF PALATALIZED CONSONANTISM IN MODERN GREEK

This paper is an attempt to solve, through a series of phonological rules, the controversy of whether or not there is distinctive palatalization of consonants in Modern Greek. Earlier discussions of this problem often pivoted on the presence or absence of a phoneme /j/, which would palatalize some consonants preceding it. The difficulty with admitting the existence of such a phoneme lay in the fact that such a solution entailed total overlapping, since [j] is also the allophone of the voiced velar fricative /γ/ before front vowels. However, once the restriction of biuniqueness is removed, this difficulty disappears. Even so, I see no reason for setting up a /j/. Rather, I claim, one should consider jV sequences as iV, except where there are compelling morphophonemic reasons for regarding them as γV. The fact that jV and iV sometimes contrast is due to the existence in Modern Greek of two types of morphemes: (1) inherited morphemes and (2) morphemes borrowed from the learned language, katharévusa. The latter present a number of phonological peculiarities, such as admitting the sequence $\left[\begin{array}{c} i \\ \hline -\text{stress} \end{array}\right]$ V, where inherited morphemes have jV. This apparent difficulty can be disposed of by appropriately marking learned morphemes in the lexicon.

Samuel Jay Keyser, Brandeis University

THE LINGUISTIC BASIS OF ENGLISH PROSODY

It is traditional to characterize iambic pentameter as a meter adhering to the following principles:

1. The iambic pentameter line consists of five feet to which may be appended one or two extra-metrical unstressed positions.
2. The iambic foot consists of two syllables.
3. Each even syllable is strongly stressed.
4. Each odd syllable is less strongly stressed.

Since a significant number of poetic lines do not fit these principles, it has also been traditional to append to these principles a list of acceptable deviations. These include lines with (1) an inverted first foot, (2) an inverted fourth foot, (3) several monosyllabic words in a row, (4) hypermetrical feet, (5) less than five stressed syllables.

In this paper it is assumed that poets like Chaucer, Shakespeare, Donne and Keats, when writing in iambic pentameter, do not violate the linguistic given of their language. Based upon this assumption, it will be shown that a theory may be devised in which lines exhibiting acceptable deviations are, in fact, derivable by the same rules which yield regular lines and are, therefore, in no sense deviant. Finally, it will be shown that this theory is sufficiently general to account for most of the traditional meters of English poetry.

Chin-W. Kim, Massachusetts Institute of Technology

ON THE NOTION "OPTIMAL OPPOSITION"

There has been no explicit formalization of the notion "optimal opposition", even though it is a familiar one in phonology, as it is known in such phrases as "the principle of maximal differentiation" or "the maximal distance in the phonological space".

The paper firstly defines the notion and compares it with the use of the variable notation in the Distinctive Feature phonology. It is argued with examples that both notions are independent and linguistically significant.

The paper then discusses two stages of the phonological description, articulation and acoustics, at which the distance between the two optimally opposed units is to be defined. It is shown that the articulatory distance is not linearly correlated with the corresponding acoustic distance in some cases of optimal opposition, and the ensuing consequence is discussed, examining at which stage of description the phonological distance is definable in a more revealing way.

Finally, it is argued and exemplified that the notion optimal opposition plays a significant role in phonology in that it provides a criterion for "general redundance" (to be defined in the paper), thereby simplifying the phonological description and giving a correct evaluation measure.

HANDOUT

On the Notion Optimal Opposition

(1) F1 = 550 cps + (a) if High, -2d (1 degree = 100 cps)
(b) if Low, +2d

F2 = 1400 cps + (a) if Front, +5d
(b) if Back, -5d

(c) if High, +1d
(d) if Low, -1d

(2) [α Grave] → [- α Grave] / X

(3) *If α High, - α 2d

(4) (a)

	Vowels	Cons'ts	Liquids	Glides
Vocalic	+	-	+	-
Consonantal	-	+	+	-

(b) [[+Consonantal] [-Vocalic -Consonantal]]

(c) [[-Vocalic] [+Vocalic +Consonantal]]

(5) (a) Indef. Art. → an / ___ # [[+Voc -Cons] ...]$_N$

(b) Indef. Art. → a / ___ # [[-Voc] ... [+Voc +Cons] ...]$_N$

(6) *Indef. Art. → a / ___# $\left[\begin{bmatrix}+\text{Nasal}\end{bmatrix}\ldots \begin{bmatrix}-\text{Strd.}\\-\text{Grave}\end{bmatrix}\ldots\right]_N$

(7) Indef. Art. → a / ___# $\left[\not{N}\ \begin{bmatrix}+\text{Voc}\\-\text{Cons}\end{bmatrix}\ldots\right]_N$

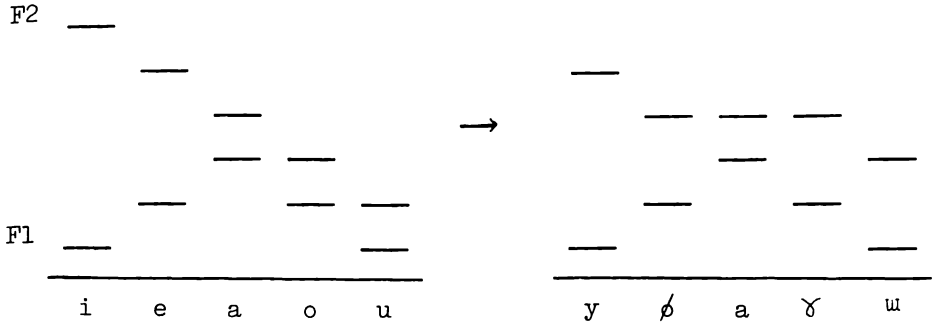
(8) Indef. Art. → a (an) / ___# $\left[\not{N}\left(\begin{bmatrix}+\text{Voc}\\-\text{Cons}\end{bmatrix}\ldots\right)\right]_N$

(9) C cluster → $\not{N}$ # X $\begin{bmatrix}+\text{Cons}\\ \alpha\text{Grave}\\ \beta\text{Comp}\\ \gamma\text{Cont}\\ \delta\text{Voice}\end{bmatrix}$ $\begin{bmatrix}+\text{Cons}\\ \alpha\text{Grave}\\ \beta\text{Comp}\\ \gamma\ \text{Cont}\\ \delta\text{Voice}\end{bmatrix}$ Y #

(10) $\omega\begin{bmatrix}+\text{Voc}\\-\text{Cons}\end{bmatrix} \rightarrow \emptyset$ / X

(11) F1 = 550 cps - ω2d, if ωHigh
F2 = 1400 cps + ω5d, if ωFront
" ω1d, if ωHigh

(12)



Robert D. King, University of Texas

ROOT VS. SUFFIX ACCENT IN THE GERMANIC PRESENT

In order to account for OS -th, OE -þ as against OHG -t in the 3rd singular present indicative ending, it is generally assumed that the Ingveonic group of Germanic languages (Old Saxon, Old English, Old Frisian) had generalized a form with IE suffix accent, Old High German on the other hand (as well as Gothic and Old Norse) a form with IE root accent (cf. Prokosch, CGG 210). This is extremely unlikely for two reasons in particular: 1) Suffix accent in IE is almost invariably associated with zero-grade root vocalism, hence we would expect residual traces of reduced-grade vocalism in Ingveonic regular strong presents, but we find none; 2) Suffix accent would entail only voiced Verner's Law variants in root-final fricatives in present tense forms, but Ingveonic strong verbs show precisely the same distribution of voiced and voiceless fricatives throughout their principal parts as do the other Germanic languages. The traditional explanation thus places an improbably high burden on analogical leveling.

I propose that uniform root accent should be assumed for the inflection in all Germanic dialects, and I show that the divergence of Ingveonic in this matter can be explained easily and correctly by using the notion that certain aspects of dialect difference are best described in terms of the same rules ordered differently in the grammars of the different dialects, cf Halle, Word 18 (1962) and Keyser, Lg. 39 (1963). The three principal rules needed are: A. Final voiced fricatives become voiceless; B. z > r; C. ð > d unconditionally. The rules as they are ordered in the different dialects are: Gothic, A; Old Norse, B-A; Ingveonic, A-B-C; Old High German, C-A-B. (Other minor rules are needed to produce correct final forms.) In addition I demonstrate that this analysis accounts also for the hitherto poorly explained West Germanic retention of -s in the 2nd singular present indicative and in the genitive singular of certain noun classes.

William Labov, Columbia University

ON THE GRAMMATICALITY OF EVERY-DAY SPEECH

Workers in generative grammar have generally considered that the unedited texts of every-day speech do not provide suitable data for grammatical analysis since these texts include many sentences that would be rejected as ungrammatical by native speakers. Normally, texts edited by native speakers provide a set of auto-prescriptive norms which are a consistent basis for the analysis of standard languages. However, texts of non-standard dialects cannot be edited in this way since the explicit norms used by most non-standard speakers are based on the standard language; nor can the grammatical structures of children's language be analyzed from edited texts. Since in many cases one must infer the structure of underlying grammars from the evidence of actual behavior, it seems necessary to investigate carefully the degree of well-formedness of every-day speech.

Over the past five years, good recordings of speech have been obtained in the field from speakers with a wide range of social backgrounds, in a range of stylistic contexts which include the most casual and most formal. Tapes have been transcribed and checked by phoneticians familiar with the speakers' dialects. A sample of the unedited texts shows a high proportion of prima facie well-formed sentences, consistent with published rules for the standard language or with non-standard variants of these rules. When some simple rules of interpretation are provided to account for stammering, hesitation and self-correction, the proportion of unique or ill-formed structures is in most cases quite low. Some evidence indicates that the language heard by young children also contains a high percentage of well-formed sentences.

These observations support other findings that the data on actual behavior are more accessible to structural analysis than has previously been argued, and that linguistic analysis need not be confined to normalized data.

George Lakoff, Harvard University

PRECYCLICAL AND POSTCYCLICAL TRANSFORMATIONAL RULES

We know that a number of transformational rules in English must apply cyclically. That is, they must apply in order first to the most deeply embedded sentence in the deep phrase marker, then again to the next higher sentence, and so on until the entire sentence has been processed. We will present evidence that not all transformational rules must apply cyclically.

First we will show that there is a precyclical sentence-deletion rule which operates to yield such sentences as (1) "Mary was believed by John to be pregnant, but I didn't believe it." The "it" is a pronominalized form of the noun phrase $[_{NP}$ it $[_{S}$ Mary be pregnant $_{S}]$ $_{NP}]$. The "it" cannot be produced by a cyclical rule, since "Mary" and "be pregnant" must be split up one cycle earlier than the necessary rule - which deletes under identity - could apply. Precyclical S-deletion provides crucial evidence for a number of grammatical analyses.

Next we will show that the rule which forms nonrestrictive relative clauses must be postcyclical. The argument depends on the claim that nonrestrictive clauses have their deep structure source in sentence conjunction. Evidence for this claim comes from synonymous sentences like the following:

(2) John, who is a friend of mine, left yesterday.

(3) John, and he is a friend of mine, left yesterday.

(4) John is a friend of mine and he left yesterday.

We will then show that an embedded sentence conjunction cannot be the source of a nonrestrictive relative clause, and that the only possible source is the conjunction at the highest node of the entire sentence. It will follow that only a postcyclical rule can produce such clauses. Confirmation of this comes from the redundancy of "Bogart, who killed the major, killed the major" and the non-redundancy of "It is not obvious that Bogart, who killed the major, killed the major."

Robin T. Lakoff, Harvard University

PRE-CARTESIAN LINGUISTICS

In his recent Cartesian Linguistics, Noam Chomsky discusses the relationship between the rationalist philosophy of the seventeenth century, originated by Descartes, and the grammatical theory of the authors of the Port-Royal Grammaire Générale et Raisonnée of 1660. As Chomsky shows, these authors, C. Lancelot and A. Arnauld, the latter a disciple of Descartes, developed a theory of language similar in many significant respects to that held by the modern transformational grammarians. The fact that these beliefs are espoused in the Grammaire Générale et Raisonnée, according to Chomsky, results almost exclusively from the exposure of the authors of this treatise to Cartesian philosophy, for example, the Méditations of 1641, which made some of the same assumptions about the way language arises and operates in man.

There are indications, however, that Chomsky's assumption of direct relationship between Cartesian philosophy and the Port-Royal grammar is not really correct. If we look at another, earlier, and better-known work by Lancelot, his Nouvelle Méthode pour Apprendre Facilement la Langue Latine, first published in 1644, and compare the first to the fifth edition (1654) we notice some rather interesting facts. This fifth edition is a work of some 900 pages, compared to 150 pages for both the first edition of the Nouvelle Méthode and the G.G. et R. Lancelot states that the increase in length between first and fifth editions is due to his discovery of the Minerva of Sanctius (Francisco Sanchez de las Brozas), written in Latin and published in 1585. Lancelot, though he nowhere mentions Descartes, despite being very generous in giving credit for ideas taken from others, credits Sanctius as the principal source of all of his analyses and his view of language. Looking at the Minerva and at the Nouvelle Méthode, we can see that both Lancelot's philosophy of language (as it is expressed both in the Nouvelle Méthode and, later, in the G.G. et R.), and his specific analyses of Latin - which are also the basis of the analyses of language in general in the G.G. et R., and establish the transformational nature

of the latter - are mostly derived from Sanctius, often as direct translations.

Therefore it appears that the very sophisticated view of language held by the Port-Royal grammarians is not traceable to Cartesian philosophy at all, but rather to a work which considerably antedates it.

Ronald Langacker, University of California, San Diego

FRENCH POSSESSIVES

The subject of this paper is the derivation of such expressions of French as ma maison 'my house'. Four rules that are needed in a grammar of French independently of any consideration of possessives are briefly considered first--Relativization, Relative Reduction, Indirect Object Adjustment, and Pronoun Placement. These turn out to function in the derivation of various possessive constructions. Next, the expression la maison qui est à moi 'the house that is mine' is chosen as the immediate source for ma maison 'my house', and the derivation of the latter through two intermediate stages is presented. An attempt is then made to justify the analysis by demonstrating the need for the intermediate stages. By way of justification, it is demonstrated that these stages provide natural sources for a number of other possessive expressions, whose derivations are given. These expressions include la maison de Pierre 'Peter's house', un ami à moi 'a friend of mine', Je lui ai cassé le bras 'I broke his arm', and le mien 'mine'.

William G. Moulton, Princeton University

ON THE NATURE OF "AUX" IN A TRANSFORMATIONAL GRAMMAR OF GERMAN

I begin my paper with an analysis of kernel sentences that do not contain any of the traditional auxiliary verbs. After considering the simplest possible types of kernel sentences, I attempt to show that a somewhat more complex kernel sentence such as Der Mann zieht die Uhr auf 'The man winds up the clock' is most satisfyingly accounted for by assuming an initial rule S → NP + Aux + VP, and a rule Aux → PN + T (with PN = person/number, T = tense). This gives: der Mann + 3sg + Present + die Uhr aufziehen. A Finite Verb Transformation then gives der Mann + zieh- + Present + 3sg + die Uhr auf, eventually Der Mann zieh-φ-t die Uhr auf. ("Present" has phonemic shape zero.)

What of the future auxiliary werden? It never occurs in transforms from which Aux has been deleted, and it never co-occurs with T "Past". I therefore take it to be "Future", one of the choices (beside "Present" and "Past") for T "Tense". Example: der Mann + 3sg + Future + die Uhr aufziehen ⇒ der Mann + Future + 3sg + die Uhr aufziehen, eventually der Mann wird-t die Uhr aufziehen.

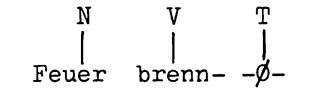
What of the perfect auxiliaries haben/sein? They do occur in transforms from which Aux has been deleted, and they do co-occur with T "Past" (and with "Present" and "Future"). They cannot be part of Aux; I take them to be an optional part of any verb, i.e. verb = V (Perfect). Sample terminal symbols: schreiben (ge- + haben) [ge- = past participle]; morphophonemic rules give geschrieben haben.

What of the modal auxiliaries können etc.? Unlike English can etc., they are not defective. Bierwisch has shown that they are best accounted for transformationally. I propose: Der Mann kann (object) + der Mann - Aux - die Uhr aufziehen ⇒ (with deletion of the NP subject and of Aux) Der Mann kann die Uhr aufziehen.

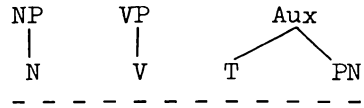
Conclusion: German Aux is very different from English Aux. Indeed, since it does not include most of the auxiliary verbs, another symbol is preferable. Maybe "F" (elements that make a verb finite)? Perhaps we should now re-examine English Aux--but that is another topic.

HANDOUT

On the Nature of 'Aux' in a Transformational Grammar of German



(1)



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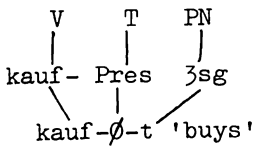

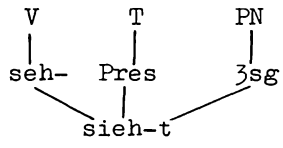

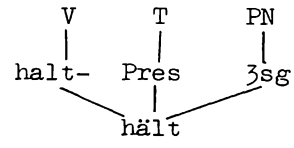

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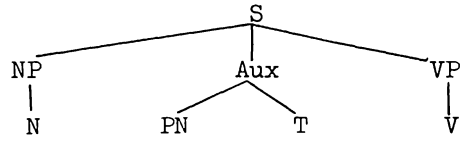
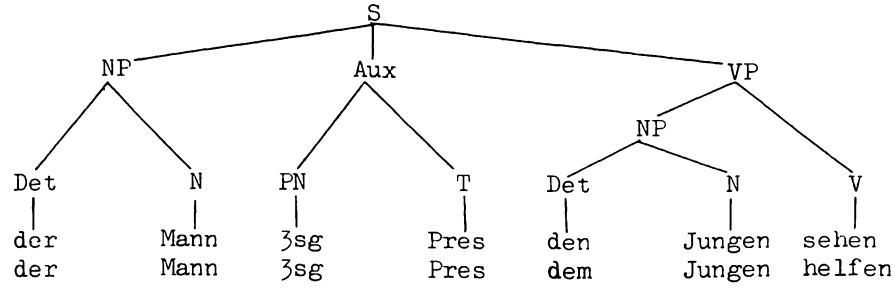


(4)

NP_1 V Aux NP_2

Der Mann sieh-t den Jungen. 'The man sees the boy.' (5)

Der Mann hilf-t dem Jungen. 'The man helps the boy.' (6)



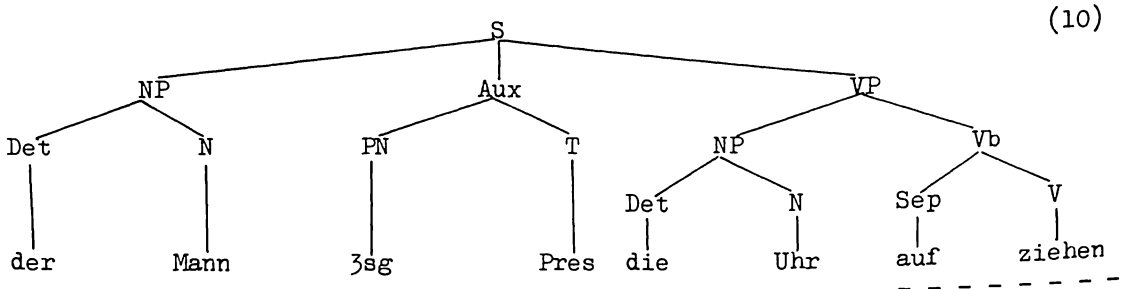
(7)

	der Mann			3sg	Pres	den Jungen	sehen	(8)
Structural description:	NP			PN	T	. . .	V	
Structural change:	1			2	3	. . .	LAST	
⟹	1		LAST	3	2	. . .		
Result:	NP		V	T	PN	. . .		
	der Mann		seh-	Pres	3sg	den Jungen		

NP V Aux NP Sep (9)

Der Mann zieh-Ø-t die Uhr auf. 'The man winds up the clock.'

(10)



Die Frau sieht (S); S = der Mann + Aux + die Uhr aufziehen (11)
⇒ Die Frau sieht den Mann die Uhr aufziehen.

Die Frau lässt (S); S = der Mann + Aux + die Uhr aufziehen (12)
⇒ Die Frau lässt den Mann die Uhr aufziehen.

Der Mann muss (S); S = der Mann + Aux + die Uhr aufziehen (13)
⇒ Der Mann muss die Uhr aufziehen.

Der Mann versucht (S); S = der Mann + Aux + die Uhr aufziehen (14)
⇒ Der Mann versucht, die Uhr aufzuziehen.

Der Mann geht ohne (S) ins Bett; S = der Mann + Aux + die Uhr aufziehen (15)
⇒ Der Mann geht ins Bett, ohne die Uhr aufzuziehen.

---

(16)

$$T \rightarrow \left\{ \begin{matrix} \text{Pres} \\ \text{Past} \\ \text{Fut} \end{matrix} \right\}$$

Der Mann + 3sg + Pres + die Uhr aufziehen ⇒ Der Mann zieht die Uhr auf. (17a)

Der Mann + 3sg + Past + die Uhr aufziehen ⇒ Der Mann zog die Uhr auf. (17b)

Der Mann + 3sg + Fut + die Uhr aufziehen ⇒ Der Mann wird die Uhr aufziehen. (17c)

Die Sekretärin muss (S); S = die Sekretärin + Aux + die Briefe bis 5 Uhr getippt haben (18)
⇒ Die Sekretärin muss die Briefe bis 5 Uhr getippt haben.

Die Sekretärin wird (S) versuchen; S = die Sekretärin + Aux + die Briefe bis 5 Uhr getippt haben (19)
⇒ Die Sekretärin wird versuchen, die Briefe bis 5 Uhr getippt zu haben.

Die Sekretärin geht ohne (S) nach Hause; S = die Sekretärin + Aux + die Briefe getippt haben (20)
⇒ Die Sekretärin geht nach Hause, ohne die Briefe getippt zu haben.

Der Mann + 3sg + Pres + die Uhr aufgezogen haben (21a)
⇒ Der Mann hat die Uhr aufgezogen.

Der Mann + 3sg + Past + die Uhr aufgezogen haben
⇒ Der Mann hatte die Uhr aufgezogen. (21b)

Der Mann + 3sg + Fut + die Uhr aufgezogen haben (21c)
⇒ Der Mann wird die Uhr aufgezogen haben.

Vb → { V (Perf) / Sep + V (Perf) } (22)

V → schreiben, ziehen, etc. (23)

Perf → Ppl + haben/sein (24)

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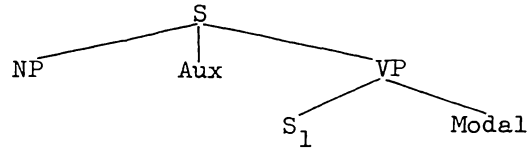
(25)



Der Mann muss (S); S = der Mann + Aux + die Uhr aufziehen (13)

⇒ Der Mann muss die Uhr aufziehen.

NP V +T+PN ... (26)

der Mann zieh-Ø-t die Uhr auf

NP ... V +T+PN (27)

der Mann die Uhr auf zieh-Ø-t

Ich weiss, dass der Mann die Uhr aufzieht. (28)

Der Mann hat die Uhr aufziehen können. (29)

⇒ dass der Mann die Uhr hat aufziehen können.

Robert A. Peters, Western Washington State College

POSTBASES IN OLD ENGLISH ADVERB SUBSETS

Adverbs in Old English may be morphologically defined as an uninflected set of linguistic constructions whose subsets are marked by positive-, comparative-, and superlative-degree postbases (PoBs 1, 2, 3). Identical superlative postbases and similar but not identical comparative postbases occur in Old English adjective sets. However, to those Old English adjective stems are also added inflectional suffixes of either the so-called strong or weak adjective paradigms. Thus, Old English adverbs and Old English adjectives are distinct morphological sets. Old English adjective = base + PoB (2, 3) + IS, but Old English adverb = base + PoB (1, 2, 3).

HANDOUT

Postbases in Old English Adverb Sets

Table A: OE Adjective Stems

Subset 1.	{'hard'} =	/hæɑ̈rd-/
	heard-	/hæɑ̈rd/
	heardr-	/hæɑ̈rd/ + /r̈/
	heardost-	/hæɑ̈rd/ + /ɔst/
Subset 2.	{'long'} =	/lɑng-/, /lɛng-/
	lang-	/lɑng/
	lengr-	/lɛng/ + /r̈/
	lengest-	/lɛng/ + /ɛst/
Subset 3.	{'good'} =	/go:d-/, /bɛt-/
	gōd-	/go:d/
	betr-	/bɛt/ + /r̈/
	betst-	/bɛt/ + /st/
Subset 4.	{'little'} =	/li:tɛl-/, /læ:s-/
	lȳtel-	/li:tɛl/
	lǣss-	/læ:s/ + /Ø/
	læst-	/læ:s/ + /t/

Table B: OE Adverb Stems

Subset 1.	{'severe'} =	/hæɑ̈rd-/
	hearde	/hæɑ̈rd/ + /ɛ/
	heardor	/hæɑ̈rd/ + /ɔr̈/
	heardost	/hæɑ̈rd/ + /ɔst/
Subset 2.	{'long'} =	/lɑng-/, /lɛng-/
	lange	/lɑng/ + /ɛ/
	leng	/lɛng/ + /Ø/
	lengest	/lɛng/ + /ɛst/
Subset 3.	{'well'} =	/wɛl/, /bɛt-/
	wel	/wɛl/
	bet	/bɛt/ + /Ø/
	betst	/bɛt/ + /st/

Subset 4. {'little'} = /li:t/, /læ:s-/

lȳt	/li:t/
lǣs	/læ:s/ + /ø/
lǣst	/læ:s/ + /t/

Table C: Postbases

	Positive	Comparative	Superlative
Adjectives		/-r̈ ~ -ø/	/-ɔst ~ -ɛst ~ -st ~ -t/
Adverbs	/-ɛ/	/-ɔr̈ ~ -ø/	/-ɔst ~ -ɛst ~ -st ~ -t/

Julius Purczinsky, Hunter College of the City University of New York

A REFORMULATION OF AN INDO-EUROPEAN SOUND LAW: VOWEL LENGTH RESULTING FROM LOSS OF A FOLLOWING SYLLABLE

Streitberg's Law needs to be restated to bring it into harmony with more recent theories and to make it usable in further analysis. According to the traditional formulation, lengthened grade arises in syllables with word-stress when a following syllable is lost. This conflicts with Lehmann's explanation of the rise of full-grade vowels and Benveniste's analysis of Indo-European roots; i.e. Form I is impossible. Streitberg's Law should be reformulated as follows: lengthened grade develops in a syllable with maximum stress when it comes to stand before plus juncture as a result of the disappearance of a following syllable with minimum stress. Forms which appear to contradict this restatement (certain neuters in -r, the s-aorist) also contradict the traditional formulation of Streitberg's Law: they must be explained as enlargements of shorter forms. This is in keeping with the tendency of Indo-Europeanists, notably Benveniste and Specht, to recognize layers of extension in Indo-European forms. Implications of this restatement for the development of case forms, the origin of the s-aorist, and the chronology of Indo-European will be briefly outlined.

HANDOUT

A Reformulation of an Indo-European Sound Law:

Vowel Length Resulting from Loss of a Following Syllable

FIGURE I

Stage B	PIE	
1. Xewedére	Xwdōr	'water' (nom.-acc. sing.)
2. Xewédere	Xwodr	'water' (nom.-acc. sing.)
3. dhénere	dhenr	'palm of hand' (nom.-acc. sing.)
4. Xewedén	Xwden	'water' (locative sing.)
5. weresénə(s)	wrsēn	'male' (nom. sing.)
6. weresenés	wrsnos	'male' (genitive sing.)
7. weresénem(ə)	wrsenm	'male' (acc. sing.)
8. weresenéme	wrsnom	'male' (gen. plural)
9. pédes	pōds	'foot' (nom. sing.)
10. pedés	pᵊdos	'foot' (gen. sing.)
11. pédem(ə)	podm	'foot' (acc. sing.)
12. pedéme	pᵊdōm	'foot' (gen. plural)
13. peXetére(s)	pᵊXtēr	'father' (nom. sing.)
14. peXeterés	pᵊXtros	'father' (gen. sing.)
15. peXetérem(ə)	pᵊXterm	'father' (acc. sing.)
16. peXeteréme	pᵊXtrōm	'father' (gen. plural)
17. Xewedén(ə)y	Xwdeny	'water' (locative sing.)
18. weresén(ə)y	wrseny	'male' (locative sing.)
19. péd(ə)y	pedy	'foot' (locative sing.)
20. weresenéy	wrsney	'male' (dative sing.)
21. ?eyemé	?yme	'to go' (1st plural)

FIGURE II

Pre-Indo-European	Theme I	Theme II
werew-	wér-w-	wr-éu-
kerew-	kér-w-	kr-éu-
gʷeyew-	gʷéi-w-	gʷy-éu-
yeweg-	yéu-g-	yw-ég-
bheneg-	bhén-g-	bhn-ég-
leyekʷ-	léi-kʷ-	ly-ékʷ-

FIGURE III

Stage B	PIE	
1. génew(ə)	genw	'knee' (nom-acc. sing.)
2. dérew(ə)	dorw	'wood' (nom.-acc. sing.)
3. genéw(ə)y	gnewy	'knee' (locative sing.)
4. deréw(ə)y	drewy	'wood' (locative sing.)
5. xéw(ə)ys	xawys	'bird' (nominative sing.)
6. xewéys	x^{w}weys	'bird' (genitive sing.)
7. hewése(s)	hwsōs	'dawn' (nom. sing.)
8. hewesés(ə)y	hwsosy	'dawn' (locative sing.)

FIGURE IV

1. démes(+) pét(ə)ys	demspotys	'master' (nom. sing.)
2. péde(+)é(s)	pede(s)	'foot' (nom.-acc.dual,nom.plural)
3. genes	genos	'kind' (nom.-acc. sing.)
4. g^{w}erés	g^{w}ros	'heaviness' (nom.-acc. sing.)

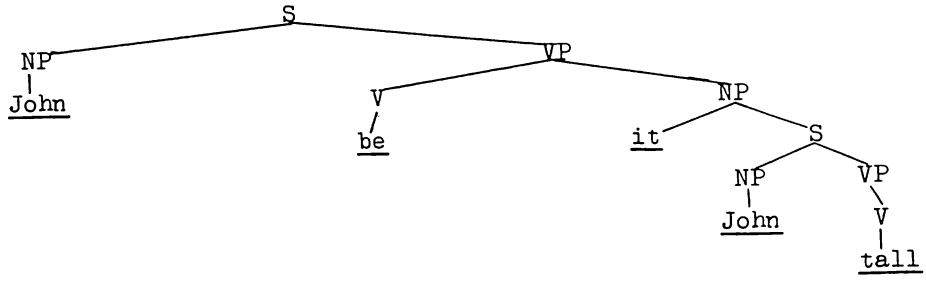
FIGURE V

1. dhé?əmən	dhe?mn>dhēmn	'placing' (nom.-acc. sing.)
2. ?ésexərə	?esxr, ?āsr	'blood' (nom.-acc. sing.)
3. wéghes	wēghs	'to ride' (2nd sing.)
4. wéghete	weght	'to ride' (3rd sing.)

John Robert Ross, Massachusetts Institute of Technology

ADJECTIVES AS NOUN PHRASES

This paper examines 6 syntactic constructions which seem to indicate that the deep structure of sentences containing adjectives (Adj) should be roughly the following:



Here, be is the main verb, and takes a sentential object, just like think, suggest, etc. Since the embedded sentence never occurs alone (in English) [*John talls], deep structures must be constrained so that such sentences only occur as the object of be. Six syntactic facts which support this analysis are:

(1) Pro-adjectives are often phonologically identical to pronouns which replace abstract nouns (Du bist klug, aber Hans ist es nicht, Ils sont intelligents, mais elles ne le sont pas (note lack of gender and number agreement), Bill is bright, but he doesn't look it).

(2) Typically, non-restrictive clauses modify and are formed on noun phrases (NP), but they can also be formed from and modify Adj: They said that Tom was smart, which he is.

(3) Pseudo-cleft sentences, which characteristically exhibit NP to the right of the verb be, also occur with Adj there: What Mike has never been is courageous.

(4) Equative sentences containing a colon (He built what I told him to: a log cabin), which require NP after the colon, can also occur with Adj there: He is what I never was: fat.

(5) In German, there is a rule moving NP, prepositional phrases, and adverbs to the front of a sentence: Bohnen/im Garten/ genüsslich haben wir gegessen. I will argue that these should all be regarded as

being dominated at some point in their derivational history by NP, so the preposing rule should only mention that NP can be moved to the front of the sentence. The fact that Adj can also be preposed (Stolz auf dich muss er sein!) can be automatically accounted for if the phrase stolz auf dich is dominated by NP.

(6) In English and other languages, an element which starts a NP cannot be moved alone to the front of the sentence by the question transformation (*Whose did you read book?) - the whole NP which the questioned element starts must be moved with it ($_{NP}$ [Whose book] did you read?). That the same thing is true of Adj ($_{NP}$ [How old] is John? but not *How is John old? except in the sense of In what respect is John old?) again suggests that adjectives must be embedded in NP in the underlying structure, even though later rules remove all trace of this node, so that adjectives in the surface structure do not appear to have anything in common with noun phrases.

Sanford A. Schane, University of California, San Diego

A SCHEMA FOR SENTENCE COORDINATION

Within a generative grammar coordinate constructions are handled awkwardly if they are derived by means of transformational rules. Yet that many types of coordinate constructions should originate from conjoined full sentences, which are subsequently reduced in some way, seems to be well motivated; that is, sentences of the type John and Mary are here can be related back to the two independent sentences John is here and Mary is here.

Generalized (embedding) transformations have been used to account for complex sentences, various types of complement constructions, and complex adverbial and adjectival modifiers. Since certain coordinate constructions are to be derived from two or more full sentences, it might seem that embedding transformations are the appropriate vehicle for reducing conjoined sentences to a single sentence containing coordinate constituents.

The theoretical objections to treating coordination by means of generalized transformations are set forth and a different schema is proposed to replace such transformations. This schema is partly transformational and partly nontransformational in nature. The nontransformational part--what we call the primary conjunction rules--derives a single sentence with conjoined constituents from two or more coordinate sentences. A set of singulary transformations--the secondary conjunction rules--may then operate on these derived coordinate structures, converting them to related variant forms.

Within the framework of this proposal are examined ambiguous constructions such as Hockett's famous the old men and women. Most of the examples are taken from English, although evidence will be presented for the universal validity of the proposed coordination schema.

HANDOUT

A Schema for Sentence Coordination

(1) John and Mary are here. (sentence coordination)

(a) John is here.

(b) Mary is here.

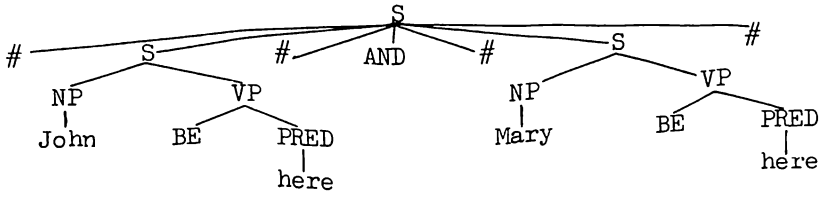
(2) John and Mary are an odd pair. (noun phrase coordination)

(a) *John is an odd pair.

(b) *Mary is an odd pair.

(3) $S \rightarrow \#S\#\ (\ \left\{\begin{matrix}AND\\OR\end{matrix}\right\}\ \#S\#)^*$

(4)

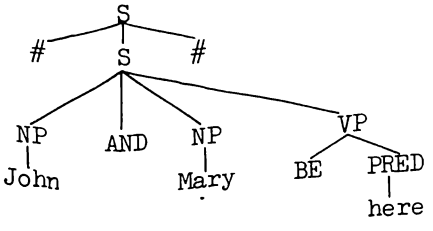


(5) $\# - NP_1 - VP_1 - \# - AND - \# - NP_2 - VP_2 - \# \rightarrow$

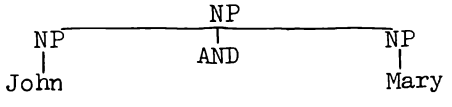
$\# - NP_1 + AND + NP_2 - VP_1 - \# - \emptyset - \emptyset - \emptyset - \emptyset - \emptyset$

where $NP_1 = NP_2$

(6)



(7)

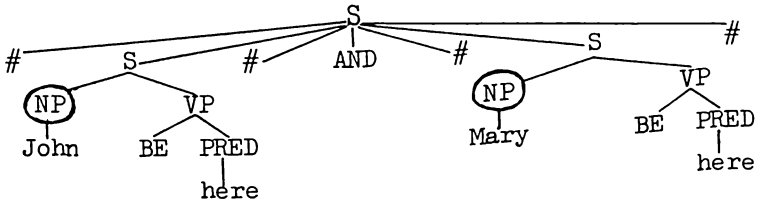


(8) "If S_1 and S_2 are grammatical sentences, and S_1 differs from S_2 only in that X appears in S_1 where Y appears in S_2 (i.e. S_1 = ..X.. and S_2 = ..Y..), and X and Y are constituents of the same type in S_1 and S_2, respectively, then S_3 is a sentence, where S_3 is the result of replacing X by X + and + Y in S_1 (i.e. S_3 = ..X + and + Y..)."
Chomsky, Syntactic Structures, p. 36.

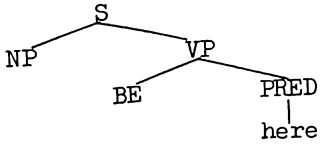
(9) Principle for primary conjunction:

Two (or more) sentences can be conjoined into a single sentence if their total tree structure is identical except for the structure dominated by one grammatical node; [this node must be a major grammatical category which is not also a lexical category.]

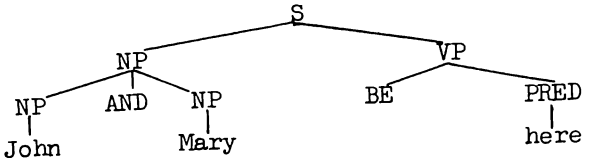
(10) (i) The single grammatical node beneath which the tree structures differ is flagged.



(ii) A single tree is reproduced which is equivalent to the tree of any one of the conjoined sentences down to the flagged constituent (i.e. all nodes beneath a flagged constituent are not reproduced.)



(iii) The flagged constituent--and all structure below it-- of each of the conjoinable sentences (as well as the conjunction marker (and, or) is attached to the flagged node of the new tree.



(iv) The old tree is erased.

(11) The old men BE here AND the old women BE here.

(a) The old men and the old women are here.

(b) The old men and old women are here.

(c) The old men and women are here.

(12) The old men BE here AND the women BE here.

(a) The old men and the women are here.

(b) The old men and women are here.

Note the ambiguity of (11) (c) and (12) (b).

(13) (a) $DET_1 - (ADJ_1) - N - AND - DET_2 - (ADJ_2) - N_2 \rightarrow$

$DET_1 - (ADJ_1) - N - AND - \emptyset - (ADJ_2) - N_2$, where $DET_1 = DET_2$

(b) $ADJ_1 - N_1 - AND - ADJ_2 - N_2 \rightarrow$

$ADJ_1 - N_1 - AND - \emptyset - N_2$, where $ADJ_1 = ADJ_2$

(14) The plane PAST can HAVE EN BE ING land at 1800 hours AND
The plane PAST can HAVE EN BE ING leave at 1900 hours.

(a) The plane could have been landing at 1800 hours and could have been leaving at 1900 hours.

(b) The plane could have been landing at 1800 hours and have been leaving at 1900 hours.

(c) The plane could have been landing at 1800 hours and been leaving at 1900 hours.

(d) The plane could have been landing at 1800 hours and leaving at 1900 hours.

(15) The old men and the women → The old men and women
The old man and the woman → *The old man and woman

Gene M. Schramm, University of Michigan

THE CORRESPONDENCE OF DISTINCTIVE OPPOSITIONS IN DISTANTLY RELATED LANGUAGES

Despite an impressive similarity in overall shape, the relationship between the pronominal systems of Egyptian and the Semitic languages cannot be stated in terms of conventional sound correspondences. They share, however, gender and number categories which can be related via simple distinctive feature rules.

Albert J. Schütz, University of Hawaii

A PATTERN OF MORPHOPHONEMIC ALTERNATION IN NGUNA, NEW HEBRIDES

Nguna, a language in the Central New Hebrides, has a pattern of morphophonemic alternation that operates for four pairs of phonemes: /ᵬ, w; p, f; t, r; ŋ, k/. (Voicing is not significant for stops. The implosive bilabial stop is sometimes released with a rounded glide.) The second of each pair occurs as the first consonant of the base in the following environments:

1. After the morphonemes pa 'you', -ŋa (nonpast), pe 'if'.
2. After (and modifying) a noun.
3. In reduplicated forms.

Although there are a few examples of contrast for each pair, most of the data show remnants of phonologically complementary distribution. I propose to examine the hypothesis that earlier one member of each pair was phonemically complex, with one of its parts marking some grammatical distinction, the exact nature of which remains to be explored. A more thorough examination of similar phenomena in the New Hebrides may help explain the origin of other complex phonemes in Melanesian languages, such as prenasalized and labialized consonants.

Seok Choong Song, Michigan State University

SOME ASPECTS OF NEGATION IN KOREAN

There are many aspects of Korean grammar that need to be improved but few are more deplorably inadequate than the descriptions of the negation. This is partly due to the apparently irregular behavior of negative particles. It is also due to the failure on the part of linguists to grasp the underlying system of rules involved in constructing negative strings. Our primary objective will be to demonstrate the underlying regularity of negativization in Korean despite the irregular pictures it presents on the superficial level.

There are two different types of negative sentences and all the previous studies simply mention this fact without explicating the relation that exists between the two different types. We claim that they are derived from two different underlying structures, and one of the latter is a transform of the other underlying string.

Two negative particles which contrast when used with Action verbs are semantically neutralized when used with Description verbs. Furthermore, one of them is also sometimes used as an adverb. These irregularities have never been systematically presented; hence the confusing pictures of negation and even more confusing descriptions of negativization in Korean.

We shall briefly discuss other irregular features involving the negation of the Verb of Existence and the Copula. Interestingly enough, the present study of negation in Korean brings to light much idiosyncratic, therefore not understood, behavior of two notoriously irregular verbs in Korean.

After discussing the rule for constructing the double negative, we shall provide a few other minor rules related to negativization in general. These involve an optional deletion of Emphasis markers after negativization and a rule to account for their free variation under certain conditions.

The negation of Propositive and Imperative sentences are excluded from the present study and we have arbitrarily limited our scope to the negativization of basic strings generated by the Base rules of the

grammar. Strings involving conjoining or embedding transformations are beyond the scope of the present study.

David L. Stampe, Ohio State University

ON THE THEORY OF PHONOLOGICAL ADMISSIBILITY, OR HOW DO YOU KNOW YOU CAN SAY IT IF YOU HAVEN'T TRIED YET?

The theory of phonological admissibility is intended to characterize and explain a speaker's tacit knowledge of what is and what isn't a phonologically possible form in his language.[1] Some current misconceptions of the nature of phonological admissibility are taken up briefly and put down: that it makes sense to speak of phonologically admissible words or utterances, that phonological admissibility is a relative rather than an absolute property, and that redundancy has something to do with phonological admissibility. An implicational theory of phonological admissibility is outlined, based on a concept originally due to Sapir,[2] but expressed here in a markedly Praguian accent.

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[1] In English, for example, tove is and ftove isn't.

[2] Again.

Karl V. Teeter, Harvard University

EVOLUTION OF THE ALGIC VERBAL SYSTEM

Recent work of Ives Goddard has shed considerable light on the verbal system of Algonquian. The present paper reports results of an investigation into the development of this system from that of the deeper family consisting of Algonquian, Wiyot, and Yurok, here referred to as Algic.

J. Charles Thompson, Arlington, Virginia

TEMPROAL ASPECTS OF THE CHINESE VERB

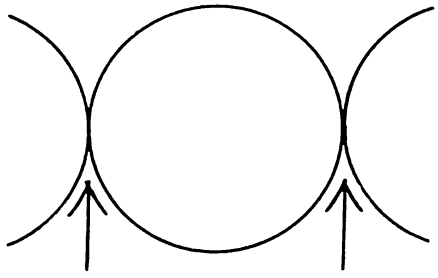
It has long been realized that tense is not a feature of the Chinese verb system. Rather, the verb is controlled with a set of particles, attached to the verb or to the sentence as a whole. The various usages involving these particles have been listed and described, but the system as a whole remains nebulous.

It is possible, by formulating a concept of time as discrete units rather than as a continuum ('beads on a string', rather than the Indo-European 'ever rolling stream'), to draw the Chinese temporal particles into a single system, at least as elegant as the Indo-European tense system. This paper will formulate that concept and describe the system.

Not all Chinese particles are temporal. This paper will be limited to a discussion of those that seem to be so: le, ne, guoh, je, and one use of de, as well as the sentence with no temporal particle.

HANDOUT

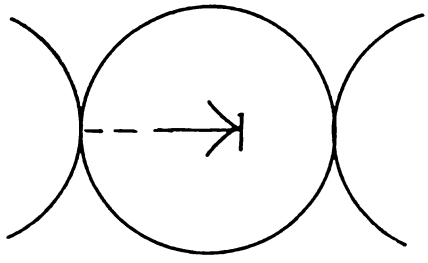
Temporal Aspects of the Chinese Verb



了

le

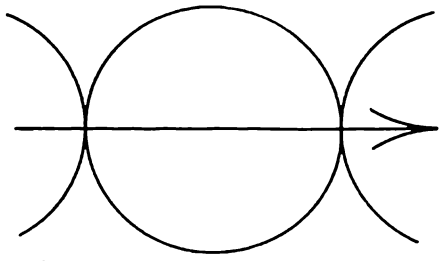
1. 死了 syyle 'he is dead'
2. 不喝酒了 buhe jeou le 'he is on the wagon'
3. 又喝酒了 yow he jeou le 'he is drinking again'
4. 來了 laile 'I'm coming'



呢

ne

1. 還沒來呢 hair meilai ne 'has not come yet'
2. 你呢 nii ne 'how about you?'
3. 作甚麼呢 nii tzuoh sherme ne ' what are you doing?'

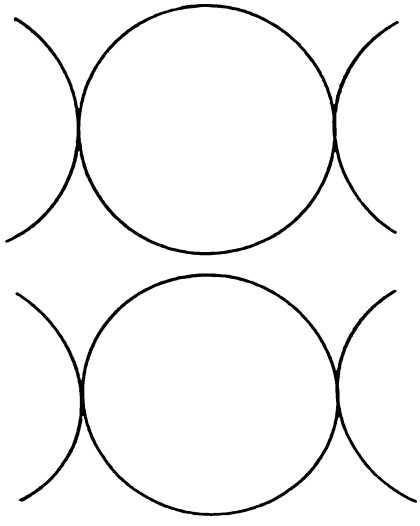


過

guoh

1. 吃過中國飯 chyguoh Jonggwo fann le

'have eaten Chinese food'



着

jy

1. 吃着飯説話 chyjy fann shuo huah 'talk while eating'
2. 吃着飯呢 chyjy fann ne 'is eating now'

Anthony L. Vanek, University of Illinois

ON THE CONSTITUENT PRO IN CZECH

Recent transformational linguistic analysis has repeatedly expressed interest in the apparent "multipurpose" status of the constituent PRO which appears to underlie various problematic derived forms. The aim of the present paper is to examine this constituent with respect to relevant problems of Czech grammar and to propose and justify the existence of several distinct types of this constituent on the basis of differences in the underlying syntactic feature constellations.

Moreover, an attempt will be made to show the interrelationship between the syntactic feature subset and its semantic feature counterpart which leads to a tentative formulation of a transformational rule of de-specification. Finally, a set of transformational rules will be proposed for the derivation of the final derived forms ten, to, ono, and ∅ which in their underlying and intermediate derived P-markers contain a constituent PRO.

Paul Wexler, University of Washington

THE IMPORTANCE OF PURISM IN THE DEVELOPMENT OF LITERARY LANGUAGES (WITH SPECIAL REFERENCE TO BELORUSSIAN AND UKRAINIAN)

The purpose of this paper is to examine the role of purism in the development of Modern Standard Belorussian and Ukrainian from their formation as literary languages in the 19th century up to the present. Our findings were set against a comparative framework of purism in a variety of languages as a contribution toward a projected typology of intervention in language.

Belorussian and Ukrainian puristic recommendations, directed against Russian and Polish influences, dominate all linguistic discussions from the 19th century up to the early 1930's and encompass all levels of the language. In the early 1930's in the USSR the flow of puristic recommendations was forcibly arrested and considerable influence from closely related Russian was suddenly introduced. Consequently, Belorussian and Ukrainian offer the linguist a laboratory in which to consider the effects of purism and no purism on the development of a language, with other variables remaining constant. The results indicate that purism was essential to the survival of a Belorussian and Ukrainian literary language. Since the 1930's, with puristic barriers eliminated to varying degrees, regulators threaten to deprive Belorussian and Ukrainian of their unique defining features by flooding them with Russian loans and by preferring native variants most resembling Russian.

Finally, a preliminary comparison of Belorussian and Ukrainian purism with purism directed against foreign elements in other languages suggests that all the various instances of purism may be reduced to two major types with respect to duration, scope and necessity: (1) purism which arises in a language denied independent linguistic status by the speakers of a closely related language with a developed literary tradition (such as Belorussian and Ukrainian in the face of Russian and Polish) tends to be prolonged in time, broad in scope, and a sine qua non to the maintenance or creation of an independent literary language; (2) purism which arises in a language recognized as linguistically

independent (e.g. Turkish, Albanian) is often of relatively shorter duration, more limited in scope and not essential to the maintenance of an independent linguistic status.

Robert D. Wilson, University of California, Los Angeles

THE FORMALIZATION OF ENDOCENTRIC AND EXOCENTRIC CONSTRUCTIONS

Paul Postal (1964), in his criticism of Zellig Harris' String Analysis (1962), notes that "Harris' work for a number of years has revolved around the interrelated notions of 'head', 'modifier', 'endocentricity', etc." and that "these are important notions which we should certainly require that general linguistic theory characterize correctly". He goes on to admit, however, that "at the moment linguistic theory cannot claim to have completely characterized any of the notions of 'head', 'modifier', 'endocentricity', etc."

It is the purpose of this paper to characterize endocentric and exocentric constructions within the frame of reference of transformational grammar. The characterization involves the definition of 'major category' in Chomsky's Aspects (1965) rather than that in Robert B. Lees' "The grammatical basis of some semantic notions" (1962), a condition on the use of parentheses and braces, and a notion of evaluation measure which holds for both phonology and syntax.

The empirical evidence consists of endocentric and exocentric constructions of English found in the linguistic literature, particularly those in Charles F. Hockett's A Course in Modern Linguistics (1958). Because the evidence is limited, the proposed formalization is, at present, highly tentative. Its justification, beyond accounting for the given data, lies in being consistent in a principled manner with the linguistic theory with which it is associated.

Valdis J. Zeps, University of Wisconsin

THE NOTION OF MARKEDNESS AND LATVIAN ACCENT

Latvian accent (stress-pitch complex) has been the subject of numerous phonological interpretations, to mention only Ābele, Ekblom, Endzelīns, Trubetzkoy, Kurłowicz, Trager, Hamp, V.V. Ivanov. While the notion of markedness was certainly available to many of the above scholars, it has not been used to advantage in describing Latvian accent.

From a phonological point of view, Latvian is best analyzed as having two tonal features, which combine to create three accents. The falling accent is totally unmarked, the sustained accent marked with one of the tonal features (say, F1), and the interrupted accent with another of the tonal features (F2). There is no doubly marked accent.

In those dialects where only two accents contrast, one or the other tonal feature has been eliminated. Consequently, either the sustained accent has survived as the marked pitch, or the interrupted accent has survived as the marked pitch. This interpretation is borne out by phonetic detail, as well as by subsequent phonemic splits within the unmarked member of the opposition.

Karl E. Zimmer, University of California, Berkeley

"HOW DO YOU THINK QUESTIONS LIKE THIS SHOULD BE ANALYZED?"

Most languages appear to have questions of the type "What do you think she did?", "What did he say he's doing?", etc. There are serious difficulties, however, in arriving at a satisfactory structural description of them. If we take as a prototype "What do you think she did?", the following elements can reasonably be assumed to be present:

1. A matrix sentence of the form YOU THINK (S).
2. An embedded sentence of the form SHE DID SOMETHING.
3. A question marker Q.

It will be seen that the domain of Q is neither the matrix sentence as it stands (if it were we might get a question such as "Do you think she did something?") nor the embedded sentence (if it were we would, in the case of think, not get any acceptable output at all; with e.g. ask we might get "You asked what she did."). Assuming that the sentence "What do you think she did?" is in fact best interpreted as having the components enumerated above, what is required is a transformational process that will make an element in the embedded sentence available for interrogation in the matrix sentence with which the question marker must be associated; for obviously the question that is asked is a request for information by the speaker, and not an interrogation which the speaker attributes to the "you" that is the subject of YOU THINK (S). This line of argument would appear to lead to the following hypothesis:

> The semantic interpretation of certain sentences should be based not on their unmodified deep structure, but on a derived structure with a specified structural description.

By Title Only

Robert J. Di Pietro, Georgetown University

JOYCEAN SENTENCES AND TRANSFORMATIONAL RULES

The paper represents an initial step in a more extensive project which will treat in detail the formal properties of sentences in the writings of James Joyce within a transformational model of language. The ultimate goal will be to identify the form of the so-called 'stream-of-consciousness' sentences and to understand the wide range of devices used by Joyce in their construction.

Within the sharply limited range of the present paper, sample sentences are examined and their surface and deep grammatical trees are reconstructed. Some formal ambiguities in fragmented and scrambled sentences are resolved. It is suggested that metaphorical uses of language (including such traditional concepts as 'metaphor' and 'simile') can be defined as temporary equivalence or comparison of partial sets of distinctive features in the lexicon.

Many of the sentences have been selected for their unusual shapes, such as the following (from Ulysses): (1) "Grossbooted draymen rolled barrels dullthudding out of Prince's stores and bumped them up on the brewery float. On the brewery float bumped dullthudding barrels rolled by grossbooted draymen out of Prince's stores."; (2) "Then he was aware of them bodies before of them coloured."; (3) "God becomes man becomes fish becomes barnacle goose becomes featherbed mountain." The question of 'grammaticality' should not be at issue since all sentences are part of an accepted English literary work.

The wealth of diverse sentences in Joyce's Ulysses provides a fruitful testing ground for the explanatory power of transformational grammar and should benefit the scholar interested primarily in literary analysis as well.

Susan Houston, Northwestern University

WHAT THE MARTIAN SAID TO THE GUMBALL MACHINE -- AN EXAMINATION OF THE LANGUAGE AND COMMUNICATION OF THE PORPOISE

The nature of animal communication, and the possibility that some of it may parallel human language or even become intelligible to man, has always been of great fascination to students of language and ethology -- a fascination which has revealed itself first in mythology, then in quasi-realistic personal experience narrative and recently in serious investigation. In particular, there has of late been growing interest in the communication systems of the cetacean species of marine mammals, and especially the communication of the dolphin or porpoise. Extensive studies, both Armed Forces-supported and private, are presently being carried out concerning several aspects of porpoise communication and social behavior; and the results of these studies promise to yield up data of interest to linguists and comparative psychologists as well as to those in the biological and acoustic sciences.

The present paper concentrates on the aspect of porpoise behavior of interest to linguists -- the nature of the communication or language system. We propose to investigate how the porpoise language relates to, and how it is divergent from, the general run of mammalian communication; to examine the existing projects and collate their results; and to discuss the author's theories on this subject and the experiments we are now carrying out in conjunction with the Navy to substantiate them.

Louis T. Milic, Columbia University

HOPEFULLY: A SPECIAL CASE OF LEXICAL INNOVATION

Lexical innovation in Modern American English is very common. New words usually reflect new artifacts of the culture and are generally nouns. Verbs and adjectives are much less common and new adverbs are rare. New words are usually highly visible and attract some unfavorable attention from conservative speakers.

During the past decade, a new word has entered the language in violation of these customary effects. The word is an adverb, hopefully, and its development has some remarkable features.

First, its existence was not noticed until it was fully established. Most speakers seemed unaware of its status as a neologism. Even puristic reformers came late to the defense of the language. Doubtless this is due to the fact that new hopefully ("it is hoped") was screened by standard hopefully ("in a hopeful manner"). Ambiguous sentences occur in which the word can be construed in the old sense or the new.

Moreover, the word reflects not an artifact but a viewpoint. Its frequent use in sentence-initial position gives it a ritual or incantatory flavor not unlike those expressions which invoke the name of the deity in other languages (Deo volente, Insh'allah).

Finally, this new word seems to accord with an increased tendency to use adverbs. Nouns with -wise endings and adverbs like militarily, typically found in initial position suggest the desire of the speaker to cast a particular semantic field over the sentence he is about to utter. Hopefully substitutes for this specificity an optative aspect.

John Nist, Auburn University

NEEDED: AN ORGANIC LINGUISTICS

The psychological constructs of the human mind are self-evidently anterior to their mutually interpenetrative language systems and structures. The psychological constructs themselves seem to cohere under the following categories: reception, perception, conception, transception, and inception. These five categories, in turn, run parallel with five keys of discourse (intimate, familiar, consultative, deliberative, oratorical), five levels of the art object (sound, sense, objects represented, world order, metaphysical qualities), and five functions of literary criticism (explication, interpretation, evaluation, cultivation, annunciation).

The creative intuition of man achieves a sixth key--the artistic--which operates via the psychological-construct category interception. Such interception demonstrates an inherent hierarchy of linguistic interdictions: value interdicts meaning, meaning interdicts function, and function interdicts form. These interdictions are possible because of an organic mutual interpenetration in which form functions as meaning and value and value and meaning act as new forms.

Thus man, his language, and the world of things about him constitute a triple basis for the three phases of communication and communion: informance, formance, performance. To adequately describe the mutual interpenetration of the psychological constructs with their language systems and structures, present-day linguists must humanize their discipline and achieve an organic linguistics that is more attentive than a grammatical scientism has been to the discourse needs of man as the maker of that generation and procession whereby beauty becomes mode of knowledge becomes moral relevance.

Lyn Roland, University of California, Berkeley

TWO MODELS OF A UNIT FOR A PROGRAMMED LANGUAGE COURSE

A. Definition of Programmed Course: A series of lessons so designed that (1) no instructor is necessary; (2) any set of utterances the student is required to produce has been prepared by a gradual interlocked buildup from minimal units (either sounds or words).

B. Theory: Language is organized noise. Teach (1) noise (phonology); (2) organization (structure). Limit vocabulary and exploit frames as far as possible. Step (1): build up to simplest sentences possible which allow for useful exchange. Phonology included is completely controlled. Step (2): teach structure; have student concentrating on something else as much as possible. Emphasize control of patterns; ignore exceptions.

C. Overall Description of Structure Model: Detailed discussion of shape of a unit. Listening → pronunciation → drill → interchange.

D. Types of drills: (8 types) with examples

E. Sequences of drills: (1) student learns form; (2) produces new form in isolation; (3) in frame; (4) in full sentence.

F. Compare Structure Model with Phonological Model. (1) P.M. exercises greater control of phonology and grammar, but is too limited. Can be used only at first. (2) P.M. teaches only one frame at a time; S.M. teaches transform of one frame into another. (3) Both P.M. and S.M. teach replaceability within given frame.

G. Limitations of both models and of programmed instruction: (1) student cannot experiment; (2) student can become engrained in an error and be oblivious to it; (3) bad for older students or people very dependent on visual aids (as most Americans are); (4) impossible to vary subject content for needs of individual; (5) cost: ca. $10/frame.

George Simeon, University of Southern California

THE SEGMENTAL PHONEMES OF POCOMAM CENTRAL - A MAYAN LANGUAGE

Pocomam Central is a Mayan language of Guatemala closely related to Pocomchi and Pocomam Oriental. The paper which is to be presented is the result of an investigation into the phonemic system carried out during the summer of 1966 in Chinautla, a municipio of Guatemala, located 11½ kilometers from Guatemala City.

This phonemic analysis represents the first research (outside of a Summer Institute of Linguistics survey) which has been done on Pocomam Central. A catalog of the phonemes and their distribution as they are presently constituted is to be presented. Pocomam Central draws on the usual stock of Mayan phonemes; stress is always on the last syllable except in a few Spanish loan words which have not been fully assimilated as yet. Phonemes from Spanish also augment the native stock.

Julia P. Stanley, University of Texas

QUALITATIVE ASPECTS OF MODIFICATION IN POETIC DISCOURSE

The present study is based on Charles N. Cofer's "Classification of Effects of Modifiers on Discrete Free Associations Made to Verbal Compounds", with emphasis on the effect of violations of co-occurence restrictions on the reader's ability to disambiguate such adjective-noun sequences.

"Qualitative aspects" refers to the connotative or associative fields of such "ungrammatical" sequences as: muttering retreats; deaf moonlight; and frowning feet. "Ungrammatical" is used simply to designate those instances in which the noun and adjective pair would not occur in casual discourse. However, because such violations are frequent in poetic (noncasual) discourse, there must be some signal by which the reader decodes the message.

The purpose of the study is to determine whether or not there is a "common" response to such violations, and if there is, whether it is the adjective alone, the noun alone, or the two combined, which is the source of the reader's response.

It is hoped that the results of the study will prove valuable not only for critical analysis of poetic discourse, but for psycholinguistic studies and machine translation, in addition to contributing to the mapping of semantic fields.

Gilbert W. Stevenson, University of Wyoming

INTONATION PATTERNS AND MODALITY

The suprasegmental phonemes of an utterance in English constitute a morpheme affecting the utterance as a whole. The principal function of such morphemes is neither lexical nor syntactic, but modal. That is, they indicate the nature of the speaker's interest in what he is saying, which was the function performed in older Indo-European languages by the modal inflections of verbs. Such inflections having long since departed from English, the intonation patterns have taken over part of their job.