Linguistic Society of America

1924-1974
GOLDEN ANNIVERSARY MEETING

FORTY-NINTH ANNUAL MEETING
DECEMBER 27-30, 1974
NEW YORK, NEW YORK

Meeting Handbook
INTRODUCTION

This Handbook has been prepared to serve as the official program for the Forty-Ninth Annual Meeting of the Linguistic Society of America, the Golden Anniversary. The first meeting of the Society was held on 28 December 1924 at the American Museum of Natural History in New York City, for the purpose of organizing a linguistic society. The meeting was scheduled in response to a call dated 15 November 1924, issued by Leonard Bloomfield, O. H. Rilling, E. H. Sturtevant, with the signed approval of twenty-six other scholars in linguistics. The result of this first meeting was the formation of the Linguistic Society of America, the object of which was the advancement of the scientific study of language.

Now, fifty years later, the LSA Annual Meeting has grown from the presentation of 15 papers in 1926 to 159 papers this year (five additional papers are presented in the form of Indian papers). This 1974 meeting has been the fifty-first meeting of the Society and would have been had World War II not intervened. In 1942 the Annual Meeting was scheduled, but cancelled the last week of November in accordance with the Defense Transportation. For the purposes of planning it is interesting to note the following which appeared in Bulletin No. 16, April-June 1943:

The Nineteenth Annual Meeting of the Linguistic Society of America was to have been held on Monday and Tuesday, November 28-29, 1942, in two sections. The papers were to be met in New York and be presented in the morning of the meeting of the American Language Association of America; the others in the afternoon, jointly with the American Anthropological Association. This division of the meeting was planned in order to comply with the request of the Office of Defense Transportation that long-distance travel be limited wherever possible. Some time before arrangements were made, the LSA issued a new statement, postponing all meetings of scientific and learned societies.

It is all their plans for the meeting, the Executive Committee of the National Planning Board of the Executive Committee of the President. This Committee was established in 1971 and is responsible for the holding of the annual meeting as a means of assessing the direction of linguistics to the war effort of informing the members of the society of the opportunities they might cooperate most effectively, and to this end it was decided to call all those who had served as editors and writers of their articles, the list was from the number of our members who had been in the public interest, but would also have given a high measure of scholarly satisfaction to the delegates. For this reason, it was with considerable disappointment that the Executive Committee complied with the subsequent request of the Office of Defense Transportation that the meeting be cancelled.

This request was not released until the last week in November. Since cancellation of the meeting would make it impossible to conduct the business of the Society in the normal manner, the Executive Committee acted at once to secure a vote of the membership empowering it to conduct the business of the Society during the national war emergency until such time as a general meeting could be called with the approval of the national war agencies. At the same time the Executive Committee made provisions for a mail ballot election of officers to substitute for the Constitutional method of nominating from the floor at the annual meeting. In the poll to send emergency powers to the Executive Committee, the Secretary received no negative votes.

The Special Notice to Members, announcing the cancellation of the meeting and the special ballots, was rushed into the mails at the earliest possible date. It has come to the attention of the Secretary that because of the congestion of the mails at that time, some members did not receive this notice until after the scheduled date of the meeting. Unfortunately it was common knowledge by mid-December that all meetings of scientific and learned societies had been cancelled.

The Nineteenth Annual Meeting was not to take place until December 1942; thus, the 1974 meeting, although the Golden Anniversary Meeting, is actually only the Forty-Ninth Annual Meeting of the Society.

In anticipation of this Golden Anniversary year, a committee was established in 1971 to plan a program to celebrate the Society's fiftieth anniversary. This Committee, under the chairmanship of R. H. E. Johnson, included J. Milton Cowan, Archibald A. Hill, John Lott (deceased), Kemp Malone (deceased) and W. Freeman Darder, Robert P. Austin, Donald C. Freeman, and Morris Heise served ex officio. This Committee organized a series of symposia under the general heading AMERICAN LINGUISTICS - PAST, PRESENT,
The LSA Secretariat hopes that this Handbook for the Golden Anniversary Meeting will be a useful guide for those attending this meeting, as well as serve as a permanent record of the meeting.

Begay Atkinson  
LSA Secretariat  
November 1974

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LSA BOOK EXHIBIT

There will be an exhibit of linguistic publications in Partors A, B and C of the Comodore. The hours are: 4:00 p.m. - 8:00 p.m. on 27 December; 8:30 a.m. - 12:30 p.m. and 2:30 p.m. - 6:30 p.m. on 28 and 29 December; and 8:30 a.m. - 11:30 a.m. on 30 December. The LSA will sell the display booth in the LSA Joint Book Exhibit on the 27th of December, beginning at 8:30 a.m., the proceeds to be donated to fellowships for the Linguistic Institute. The display copies have been generously donated by the publishers exhibiting in the LSA Joint Book Exhibit. Advance orders for display copies at a discount of 50% greater than given by the publisher, will be taken when accompanied by payment. The book must be picked up on 30 December between 8:30 a.m. and 10:00 a.m. or will be resold and the advance payment donated to Linguistic Institute fellowships.

JOB PLACEMENT

Job Placement will be available in the Club Suite on Saturday and Sunday, 28 and 29 December, from 10:00 - 2:00 p.m. and 4:00 - 8:00 p.m. and on Monday, 30 December, from 9:30 a.m. - noon.

LSA BUSINESS MEETING

This year the Business Meeting has been scheduled for the morning of 29 December from 8:30 a.m. to 11:00 a.m. in the Grand Ballroom. The meeting will be chaired by Morris Halle, LSA President and Victoria Fromkin will serve as parliamentarian. A Resolutions Committee has been appointed, consisting of Isidore Dyen, Chairman, Timothy Light, and Doris Allen. Rules for motions and resolutions appear in the program section of this Handbook (Sunday morning, 29 December 1974). DAY CARE

The Linguistic Society has arranged with the Modern Language Association to share day care facilities for this meeting. The center will be located in the New York Hilton at Rockefeller Center (1335 Avenue of the Americas at 53rd Street) in Room 212. This center will be staffed by the Babysitters Guild, Inc. of New York and light lunches will be provided. The hours are: 26 December, 6:30 p.m. - 10:30 p.m.; 27 and 28 December, 8:30 p.m. - 10:30 p.m.; 29 December, 8:30 a.m. - 12:30 p.m. The cost is $12.00 per child for the day sessions, $9.00 per child for evening sessions, and $6.00 per child for the morning session on the 29th. The Comodore also has baby sitters.

LSA GOLDEN ANNIVERSARY SYMPOSIUM: THREE

There will be three sessions of the Symposium, "The European Background of American Linguistics" on 27 December in the Grand Ballroom of the Comodore. These sessions are scheduled at 10:00 a.m., 2:00 p.m., and 8:00 p.m. This symposium was planned by the LSA Golden Anniversary Committee under the guidance of John Hauge, Chairman, J Milton Cowan, Archibald A. Hill, John Lots (deceased), Kemp Malone (deceased), W. Pressey, and J.T. Scandling, with Robert P. Asteritz, Donald C. Freeman, and Morris Halle serving ex officio. Symposium three was organized by Henry M. Louwagie and consultation by D. Terece, consultation from Mr. Haugan and the Committee, and the speakers will be: W. Roemer, Balan S. Wells, Z. M. Uhlenbeck, and Roman Jakobson.

GOLDEN REMINISCENCES: FIFTY YEARS OF THE LINGUISTIC SOCIETY OF AMERICA

Mr. Haugan, as chairman of the LSA Golden Anniversary Committee, has planned a session of reminiscences by Secretaries of the Linguistic Society, J Milton Cowan, Archibald A. Hill, Thomas A. Sebeok and Arthur S. Abramson, and also including Martin Joes, who is writing the first part of the History of the Linguistic Society. The session will be chaired by Mr. Haugan. This session will follow the Business Meeting on 29 December in the Grand Ballroom and is scheduled from 11:00 a.m. - 1:00 p.m.

LSA GOLDEN ANNIVERSARY FILM COMMITTEE

This Committee, under the chairmanship of Walburg von Raffler Engel, has produced a film on child language acquisition which will be shown at 1:00 p.m. on 30 December in the West Ballroom immediately succeeding the session on Language Acquisition.

PRESIDENTIAL ADDRESS

Mr. Halle, President of the Society, has scheduled his presidential address for 8:30 p.m. on 29 December in the Grand Ballroom, with a cash bar reception to follow.

SPECIAL INTEREST GROUP LUNCHEON

The special interest group luncheon will take place on 28 December from 12:15 to 1:45 p.m. at the registration desk. Tickets for the luncheons are $5.00, including tax and gratuities. Guest tickets at tables are available on a first-come, first-serve basis. The following individuals have agreed to chair luncheons: Harry A. Whitaker, Neurologist, and Lois Bloom, Language.

LANGUAGE AND CULTURE OF THE DEAF, Sunday, December 29, 6:30-8:30 p.m., Parlor E

This session is intended to bring together those who are doing linguistics in the deaf community, particularly those with an interest in sign languages, sociolinguistics, psycholinguistics, and minority or bilingual education.

In this first get-acquainted gathering, topics under discussion will be the important issues of (1) information exchange and information sources, (2) promoting responsible scientific attitudes toward the language situation in the deaf community, (3) maximizing linguistic input in applied fields, e.g. counseling services, deaf education, employment opportunities.

Also to be discussed is the potential for an organization to promote deaf linguistic studies. For further information, please contact Robin Battison during the Annual Meeting.
THE EUROPEAN BACKGROUND OF AMERICAN LINGUISTICS

Chairman and Designer, Symposium III: Henry M. Hoenigswald

27 December 1974 • Grand Ballroom

10:00 a.m.

EINAR HAUGEN Introduction
ROSANE ROCHE Introduction up to the Introduction of Neogrammarian Thought
RULON S. WELLS Linguistics as a Science in Europe and America
HANS AARSLEFF Discussant

2:00 p.m.

YAKOV MALKIEL Aspirations, Organization, Achievement
E.M. UHLENBECK A Detached View
D. TERENCE LANGENDOEN Discussant

8:00 p.m.

ROMAN JAKOBSON The Twentieth Century in European and American Linguistics: Movements and Continuity

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<td><strong>Thursday, 26 December</strong></td>
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<td>LSA Finance Committee</td>
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Meaning, Strategies, and Dialectal Variation: Leismo Resolved

One of the thorniest problems in Spanish dialectology is the extent to which different varieties of Spanish agree (or not) in their usage of the pronouns le and lo to refer to a "direct object." To a varying degree, all dialects will on occasion use the "dative" le (invariable for gender) to refer to a "direct object," and the causes and circumstances of this variation (labelled leismo) are far from understood. The traditional "syntactic" analysis in terms of "direct" vs. "indirect" object has not provided a satisfactory framework for the investigation of the le/lo alternation, so much so that the general picture is one of random chaos.

A Form-Content analysis of the opposition between le and lo in semantic rather than syntactic terms has succeeded in explaining the distribution of le and lo in Buenos Aires Spanish, and shown it to be nonarbitrary. According to this analysis, the fundamental strategy in the use of these forms is that le refers to an object that is seen as closer to the subject than the one referred to with lo. Different characteristics of the object or of the subject may determine the "distance" between the two, and thus call for le rather than lo.

A year-long survey of seven Spanish dialects covering the full range of leismo was undertaken to determine whether the Buenos Aires analysis holds for them also. Ten factors were examined (four "object" variables and six "subject" variables); thirty native informants of each dialect filled out blanks in a questionnaire testing each variable on each of four verbs.

The findings show:

a) That the meanings of le and lo are the same for all dialects.

b) That the dialects differ in the absolute "strength" of each factor but rank the factors in the same way.

c) That the dialects differ in the importance given to the gender vs. the case meaning of lo.

d) That the characteristics of the object are more important and reliable than those of the subject in determining choice of le vs. lo.

This research shows that, in all dialects, use of le for the so-called "direct object" should not be seen as an arbitrary deviation from a syntactic norm, but as a semantically motivated choice.

Traditional labels like leismo presuppose the existence of syntactic norms from which speakers depart for arbitrary reasons. The random chaos forced by a syntactic approach to the use of le disappears when the analysis rests on the communicative function of language.

In this paper we argue for the use of contextual testing in second language acquisition programs. We also suggest guidelines for devising such tests and present sample tests.

Testing has recently become the focus of renewed interest. There is growing awareness that ability to communicate in a non-native language is not necessarily reflected in scores on "typical" structure, vocabulary, and listening comprehension tests. We claim that this is because there are at least two parameters of communicative competence which are not tested: nonverbal cues and discourse rules. Awareness of what gestures, facial expressions, and body position mean affects ability to communicate. For example, a non-native Thai speaker naively pointing the bottom of his foot towards a native speaker will be unable to communicate with him effectively, no matter how fluent his speech, because his body position constitutes an insult. Also crucial to communication is awareness of how ideas, opinions, arguments, disagreements, social amenities, etc. are conveyed in the new language situation. For example, a Japanese speaker who knows English discourse rules will state his topic and express his opinion directly rather than speak delicately in circles, in the Japanese mode.

Communicative competence, as we define it, differs from Chomskian competence in scope and in purpose. It encompasses more elements, including verbal and relevant nonverbal performance factors, and, of course, refers to non-native competence. We have in mind a functional performance level similar to that of a native speaker of comparable intellect and education—specifically that of graduate students or professionals in business or international organizations. We do not mean error-free sentences or even intuitive knowledge of all the grammatical principles of the new language.

To find how close students of a second language come to the goal of communicative competence, we suggest that present testing techniques, including the close procedure to which the term contextual testing has been applied, are inadequate. We define contextual testing in terms of theory rather than methodology. It refers to the testing of oral communicative abilities (i.e., the degree to which one can understand what is said in context and can respond appropriately) and writing abilities (i.e., the degree to which one can understand what is written in context and can communicate through the written word).

The sample test draws on the errors of non-native speakers produced in work and classroom situations, including pronouns and demonstratives, emphasizing and limiting adverbs, logical connectors, shortened and deleted forms, tense sequences, organisational signals, rhetorical devices, vocabulary and rhetoric choices for given relationships between the writer and audience, and presuppositions. The use of various test formats, including multiple choice, rating for acceptability, and the labelling of sentences as well-formed and appropriate or anomalous in a given context are demonstrated within the framework of contextual testing.
Using the category squish and corresponding gradation from asserted to presupposed predication, I extend Horn's (1969) analysis of only etc. to cases where the surface argument of only etc. is more structured than simply (Art+NP). Only part of the NP is semantically within the quantifier scope; the remainder defines a background set within which presuppositions and assertions determined by the quantifier hold. This partitioning of the NP into quantifier argument and background set is governed by verbiness of the NP's constituents: the quantifier constituents constitute the quantifier argument; nounier ones, the background set.

Consider the examples (all without contrastive stress!)

(1) Only the men who ate Wheaties became important. /Only N S /
(2) Only the tall men could see over the wall. /Only Adj N /
(3) Only the guilty who spoke English escaped. /Only Adj S /

In Horn's analysis, "ONLY Fx" presupposes Fx and asserts that for y, x = A, -Fx. With x more complex, as in (1-3), we see that if A is nounier than B (x = AB or BA), then A specifies a background set and B specifies the unique subset of A making F true. Note that (2) does not assert that short emus could not see over the wall nor presuppose that any emus could see over it--the quantification is local, and the nounier constituent defines locales. When the NP consists of more than two major constituents, the above claims hold in part, but there are complications:

(4) Only tall men who were drunk made the team. /Adj N S /
(5) Only the tall men smoking got caught. /Adj N Part S /
(6) Only men drinking who were red got caught. /Adj Part S /
(7) Only drinking men who were red got caught. /Adj Part S /

In (4) and (5) the verbier constituent (S) is the subset asserted to be unique and the remainder is background set; but (6), while it clearly has as background set a subset of {men} and as quantifier argument a subset of {who wore red}, is unclear as to the status of drinking. Is it that, of {men}, only the subset [drinking who wore red] got caught? or that, of men drinking, only the subset [who wore red] got caught? As with the emus, these correspond to different data bases. The latter reading seems to be preferred, but the former is much easier to get than the similar reading of (7). This and similar cases suggest that fronting heeds--reduces--the verbiness of participles, so that they become part of the background set rather than of the quantifier argument. This seems to be due to the surface prenominal position of adjectives (whence "adjectivalization" of the participle) and to the (universal) tendency for new material to follow old (whence fronting backgrounds). Compare "I found a window broken" and "I found a broken window".

A related problem is the notion "NP head". It also apparently depends on nouniness of constituents, but when the nouniest daughter is lexical but apparently not a noun, "nominalization" takes place--note idiosyncratic number agreement for tall (sg) and obvious (*pl) vs. amnointed (sg or pl OK) when they head an NP. Even if such irregularity requires making all lexical heads nouns, the applicability of nouniness to determining the head, since the "apparent" category suffices, must be acknowledged at some level, possibly discriationally.
Old English Vowels and the Question of Vowel Heights

All Old English scholars assume that Old English long and short vowels differed in quantity only and coincided in quality. However, when open syllable lengthening occurred, the long vowel system changed from three vowel heights to four vowel heights:

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<th>OLD ENGLISH</th>
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To account for the development of a long vowel system with four vowel heights, scholars have assumed that the short vowels "lowered" in the vowel space just before open syllable lengthening occurred. This paper will challenge the assumption of short vowel lowering and will argue that the OE short vowels were lax, i.e., that they differed from OE long vowels in quality as well as quantity.

Three recent independent acoustic analyses (of Faroese, English, and the Cologne dialect of High German) show that the forms of VL and ML overlap those of tense [e, o, i, u], making the acoustic criteria for tense/lax differentiation in vowels questionable. Georg Heike in the Cologne dialect monograph proposes that when segments belonging to different phonemes overlap phonetically, one must assume that they belong to closed independent phonological systems.

Heike's proposal makes it possible to explain the development of a four-vowel-height system from a three-vowel-height system in Old and Middle English without short vowel lowering since pattern congruence between the long and short vowel systems is more important than phonetic similarity, especially in the phonological analysis of borrowed words by the native speaker. For instance, Vulgar Latin vowels which were redundantly short by position would be heard in Old English as distinctively short and assigned to the relevant member of the OE short vowel system; Vulgar Latin vowels redundantly long by position would be heard as distinctively long and assigned to the relevant member of the OE long vowel system, even though the forms of the two VL vowels in question were phonetically overlapping.

The assumption of closed independent phonetically dissimilar vowel subsystems linked by the distinctive feature length makes the completely unmotivated "lowering" of OE short vowels unnecessary, explains why native speakers match foreign sounds functionally to native sounds instead of phonetically, shows how four vowel heights can arise from a three-vowel-height system by the disturbance of the linking distinctive feature, and shows how limited phonetic means can be utilized to provide a very large number of distinctive differences in the phonology.

Jeanette Gundel
Ohio State University

Left Dislocation and the Role of Topic-comment Structure in Linguistic Theory

Ross (1967) has proposed an extracting analysis for left dislocated sentences like (1) which would derive the latter from the corresponding simple sentence in (2) by a rule that Chomsky adjoins an NP to the left of a higher sentence, leaving behind a pronominal remnant.

(1) That movie, Bill said it was really depressing.
(2) Bill said that movie was really depressing.

Left dislocated sentences have a number of interesting properties, which provide no strong support for an extracting analysis and which would have to be treated as accidental and unrelated restrictions on a left dislocation rule. These properties include the following: (a) the function of the dislocated NP is to state the theme of the following predicate, hence to indicate what the sentence is about; (b) the dislocated NP can not have primary stress; (c) the dislocated NP is necessarily definite and always carries an existential presupposition; (d) if the dislocated NP is a pronoun, it must be an objective form, even if its copy in the main sentence is in subject position; (e) noun phrases containing quantifiers (or any element that is not an identifying property of the NP) cannot be dislocated; (f) the pronoun it, which is always anaphoric, can not be dislocated. In addition, unless one is willing to accept completely different analyses for sentences like (1) and those like (3) where the dislocated NP is preceded by for (e.g. for the moment), then ignoring obvious similarities between the two constructions, sentences like (4) provide crucial evidence against the extracting analysis. They have no dislocated counterpart out of which the NP could have been moved (a similar argument is presented by Kuno 1965 against an extracting analysis of Japanese sentences).

(3) As for that movie, Bill said it was really depressing.
(4) As for fruit, Bill likes cantaloupe best.

I will argue in this paper that sentences like (1) and not sentences like (2) that are 'basic'. More specifically, left dislocated sentences are derived from logical structures roughly like (5), where the dislocated NP already exists as a co-constituent of the main sentence.

\[ \begin{array}{c}
\text{NF} \quad S \quad S' \\
\hline
\text{1} \quad \ldots .
\end{array} \]

Such an analysis not only makes possible a more principled explanation of the properties of sentences like (1), it also offers a natural basis for integrating into the grammar a description of the topic-comment structure of all sentences and of the existential presuppositions associated with topic noun phrases. Deriving all sentences from structures like (5) makes explicit the notion that the fundamental division of a sentence is between the topic, the element that identifies what the sentence means, and the 'purely' the topic-comment part, i.e., the comment, the predicate that is made about that object.

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Dealing with isolated $S_1$ before $S_2$ sentences such as those treated in Heinamäki 1972, 1973, this paper gives evidence that there is only one before in underlying structure and it is factual. It is hypothesized that factual underlying structures of the form $S_1$ before $S_2$ may be transformed into non-factual $S_2$ before $S_1$, e.g.,

1) Max died before he saw his grandchildren. (NP)

2) Max didn’t see his grandchildren before he died. (F)

Evidence consists of:

1) negative polarity items in affirmative $S_2$ of non-factual $S_1$ before $S_2$, but not in affirmative $S_2$ of factual $S_1$ before $S_2$.
2) non-occurrence of negative $S_2$ in factual $S_1$ before $S_2$ on grounds of selection, but yes in non-factual.
3) sentence constructions, as well as on factual ones, are based on the non-occurrence of negative $S_2$ in factually unattainable structures with negative $S_2$.

Contrary to Heinamäki’s findings, $S_1$ before $S_2$ where $S_2$ contains modal would be shown to be factual, thus regularizing the paradigm, and attention is given to sentences containing temporal measure phrases, which occur only in factually.

The few remaining problems are:

1) structures underlying non-factuals with intentionality, such as

3) I caught the glass before it broke.

The underlying structures of these sentences include, in addition to a factual $S_2$ before $S_1$, a statement something like

4) I caught the glass such that it wouldn’t break.

2) scope of the negative. In sentences like

5) Don’t pat the dog before you eat.

6) the not covers not $S_1$ alone, but the whole sentence.

3) a factual $S_1$ before $S_2$ sentences, e.g.

5) Like left before anyone came, which behave like non-factuals, but with a few problems.

That the restrictions on $S_1$ before $S_2$ constructions don’t depend on before proves that there is only one before as it is used in these sentences, not different ones for factual and non-factual sentences as previously believed. It is possible to apply this type of analysis (factual vs. non-factual, negative vs. positive variables) to sentences formed with other temporal connectives; perhaps even these particular findings could apply in certain cases (e.g., after).

Heinamäki, Otrokkil, 1972. 'Before’. In Papers from the Eighth Regional Meeting Chicago Linguistic Society, 139-51.

The First Course in Sanskrit

For the past one hundred and fifty years at least some formal instruction in Sanskrit has formed a part of the training of a great many linguists. If, however, one examines the materials for elementary Sanskrit courses, one finds that they have been surprisingly untouched by every innovation in language teaching methodology.

In our presentation we shall first review the major approaches to Sanskrit teaching which are currently in use (Perry, Tyberg, Geneseo, Lamman-cum-Whitney) and we shall endeavor to show the ways in which each is unsatisfactory, given a modern philosophy of foreign language teaching.

We shall next discuss what we believe to be a basic postulate of all foreign language teaching:

Full passive command of linguistic structures can be best empirically acquired if the classroom goal is active production rather than simple recognition.

We shall argue that this postulate, which is widely accepted for modern foreign languages, is equally valid for Ancient Languages.

Finally, we shall present excerpts from a set of elementary Sanskrit materials which we are in the process of developing and which are based on the analysis of the learning difficulties which Sanskrit structure presents for English-speaking students.

At present on American campuses there is a great deal of interest in Indian philosophy, religion, and culture. If eager and earnest students who are linguistically naive can be given Sanskrit in such a way that they will not be defeated by it, this will provide yet another channel through which linguists can reach the community at large and, incidentally, find employment.

The IE Interrogative and the Genitive Singular

IE did not have two interrogative stems (in the sense of two contrasting pronouns) as the standard references say, or worse, imply; the vocalizations *kə*- and *kəm*- were assigned to an ancient paradigm by the same rules that distributed the parent forms of Skt. *av-ām (m.), ad-ām (n.) = Lat. *ād (m.), a (m.acc.) = Goth. *in-s (m.acc.), *in-n (non-n., nom.pl.), *in (gen.sg.), Umbr. *indo (dat.sg.) = Slav. *tota, Celtiberian *tomu, Skt. *atad 'today' (combining form). An abbreviated paradigm of the interrogative then appears as follows:

\[
\begin{array}{c|c|c|c}
  & \text{non-neut. nom. sg.} & \text{pl.} & \\
  & \text{acc. sg.} & \text{pl.} & \\
  & \text{neut. nom./acc. sg.} & \text{pl.} & \\
  & \text{gen. sg.} & \text{dat. sg.} & \\
  & kə & kə & \\
  & kən & kən & \\
  & kəm & kəm & \\
  & kən & kə & \\
  & kəm & kə & \\
\end{array}
\]

The derivation of this paradigm, which depends heavily on the Celtic evidence, has been presented in detail in Studia Celtica (forthcoming).

The original pronominal gen.sg. was *kə (to *kəm), *kən (to *kən), *kəm (to *kəm) etc.; these were extended to *sə- (Goth. *is), *sə- (Slav. *seg), *sə- (ROM); OIr. *coic seems to be *kə- *kə- *kə- *kə- *kə- *kə- *kə- *kə- etc. Other traces of this optional *-s are found esp. in Iranian.

The original pronominal gen.sg. was *sə (to *(sə), *sə (to *sə), *sə (to *sə), *sə (to *sə) etc.; these were extended to *sə- (Goth. *is), *sə- (Slav. *seg), *sə- (ROM); OIr. *coic seems to be *kə- *kə- *kə- *kə- etc. Other traces of this optional *-s are found esp. in Iranian.

Levelling (assimilation) in the dialects then took place in both directions: *kə- *sə- *sə- *sə- Av. *vab-, *sə- *sə- *sə- *sə- Gk. *a- > *a-; *sə- *sə- *sə- *sə- CH3 *sə-.

The interrogative and the genitive singular each originally had a single order set of formation rules. Complexities in recovery arise from contaminations (levellings, or rule simplification).
Some Alternating Patterns in Phonology

In A Directional Theory of Rule Application in Phonology, I. Howard discusses a number of alternating phonological patterns which he takes as evidence for a principle which predicts the directions in which rules apply. The purpose of this paper is to argue that these patterns do not actually provide any support for the directionality principle.

Two kinds of alternating patterns are of concern here. The first is alternating stress. A typical pattern is one in which the even-numbered syllables in a word are stressed, e.g., KOCNVOCNV. It is true that a stress rule of the form V→\text{stress} / V can correctly assign stress in such cases by applying from left to right. However, it will be argued that (a) within the directional framework, languages with stress on odd-numbered syllables must be described in a way which obscures their similarity to even-syllable-stress languages (b) the main stress apparently always falls at the beginning of the alternating pattern, suggesting a correlation between main and alternating stress which cannot be captured if rules like the one above are allowed. Two constraints on the form of stress rules are required to capture the observed correlation between main and alternating stress. These constraints force a uniform account of odd and even stress, and furthermore force the formulation of rules with intrinsic directionality.

The second kind of alternating pattern involves processes other than stress. An example is Wolofan vowel raising, which converts underlying forms like ek\text{a}\text{a}ek\text{a} into ek\text{a}\text{a}ek\text{a}. In cases of this type, there do not seem to be any relevant considerations like those mentioned above in connection with stress. It is true that directional rules are sufficient to produce these alternating patterns. However, it will be argued that (a) there are certain rules which must not produce alternating patterns, and within the directional framework, the ad hoc device of marking such rules as "simultaneous" must be resorted to (b) assuming simplex features, it can be shown that all those rules which produce alternating patterns of this kind involve identity deletions. If simultaneous application is taken as the unmarked mode, as would be the case in a theory such as that proposed by Kotsovos, Sanders and Noll (1974), alternating patterns of this type are automatic consequences of an independently-motivated constraint against unrecoverable deletions, while the non-alternating patterns are produced by rules for which this constraint is not relevant. It is thus claimed that the type of pattern produced by all such rules is fully predictable, and there is no need to mark rules for a particular mode of application.

It is concluded that the two types of alternating patterns discussed in this paper do not support the axiom of directional application, and in fact, they provide evidence against it.

Prenasalized Consonants as Consonant Clusters

The numerous problems presented by prenasalized consonants have puzzled linguists for decades. Luganda, a Bantu language of Eastern Africa, should provide material for an excellent case study of prenasalized consonants. In addition to a contrast between prenasalized voiced and voiceless stops (mb, nd, nj, ng; sp, nt, ñc, gn), there exist prenasalized fricatives (γv, nz, γp, ng).

I shall briefly review the accounts of prenasalized consonants within current phonological theory and show why all must be rejected for Luganda. Although Luganda prenasalized consonants evidence about the same surface length as underlying unitary consonants, instrumental evidence forces us to regard the two components of the prenasalized consonants as separate. Basically, for purposes of syllabification and timing, the nasal component functions in the syllable to its left and interacts crucially with the length of the vowel in that syllable, whereas the non-nasal component functions in the syllable to the right. It will be argued that the timing of the language attempts to preserve a distinction between the basic syllable lengths which distinction accounts for the interplay which is schematized below:

<table>
<thead>
<tr>
<th>kutiga</th>
<th>CV</th>
<th>CV</th>
<th>CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>kutimba</td>
<td>CV</td>
<td>CV</td>
<td>V</td>
</tr>
<tr>
<td>CV</td>
<td>V</td>
<td>V</td>
<td></td>
</tr>
</tbody>
</table>

(where VV = underlying long (not double) vowels and V = phonologically lengthened vowels).

Additionally, I show that there is a distinction in the respective lengths of the two components for voiced and voiceless series, a distinction that also interacts with vowel length crucially. A difference in the behavior of the prenasalized continuants [mf] and [mv] will be explained by reference to the derived status of the non-nasal components.

This evidence suggests that it may be wrong to speak in terms of 'prenasalized consonants' for Luganda and that a more accurate description would speak of nasal-consonant clusters -- one of the two types of consonant clusters allowed in Luganda -- since the two components function in separate syllables at the level of timing organization.

I will relate these Luganda facts to a phonological analysis in which prenasalized consonants are derived from sequences of NVV, an analysis which would otherwise be rejected on grounds of simplicity and naturalness. Data from other related languages will be examined which apparently cannot be treated analogously with the Luganda facts. Finally, if time permits, the general question of syllable- vs. mora-timing will be examined and it will be shown that the term strictly defined, in inappropriate as a unit of timing for modern Luganda.
Idioms of the type to make headway have commonly been used to argue for the existence of movement transformations in the derivation of constructions such as passives, relative clauses, and easy to please phrases. The argument is based on the putative generalization that nouns such as headway only occur in the deep structure of English sentences as the direct object of the associated verb. The purpose of this paper is to present a construction in which such idioms can appear quite freely, and in which there would seem to be no way of preserving this generalization about the distribution of the object noun. An example of the relevant kind would be:

John isn't making what I would call significant headway. Such examples suggest that noun phrases containing nouns like headway can also appear in positions in which they are in some sense equated to an anaphor which is the object of the associated verb, but are not themselves the object of that verb. If this is correct, then no direct conclusions about movement can be drawn from examples like:

Heady isn't easy to make in such conditions.

To deal with such examples, it is now sufficient to claim that the object of make is anaphoric to the noun phrase headway; it is not necessary to claim that headway was present in the deep structure as the object of make. Hence, the behavior of such idioms does not show that the derivation of these constructions must involve movement transformations. [I am assuming here an interpretive approach to anaphora, but similar conclusions would follow on a deletion analysis of easy to please constructions, or a matching analysis of relative clauses.]

It is widely held that pronominalization across sentence boundaries is optional. Justification for this observation takes the form of (1), where either the repetition of a noun phrase or an appropriate pronoun results in an acceptable utterance.

(1) Sentaro Iwata died of cerebral hemorrhage in Tokyo on Tuesday. [Iwata] was 73.

This paper argues that pronominalization across sentence boundaries is not optional and that the use or nonuse of a pronoun in cases of this type signals a difference in structural organization at the discourse level.

A discourse consists of paragraphs, or stretches of language concerned with the same topic. Every paragraph consists of segments in which a major piece of information is presented. The sentence, or sentence fragment, of a segment in which the essential point is made is termed a peak. The peaks of a paragraph are semantically coordinate in that they each contain the major pieces of information to be communicated in the paragraph. All other sentences and sentence fragments in a paragraph are semantically subordinate to a peak in that they elaborate or further delimit the information presented in the peak.

Here, discourses with only one referent are examined. In these cases, the repetition of a noun phrase indicates that the sentence in which the noun phrase is contained constitutes a peak, while a pronoun indicates that the sentence is subordinate to a peak. Thus, pronominalization, rather than being optional in extrasmantal cases, actually serves to identify a structural property of discourse.

In the case of (1), an overly simplified example, the use of the pronoun indicates that the second sentence merely elaborates the first sentence slightly. The use of the noun phrase in the second sentence indicates, perhaps, that Iwata's age of death is something unique and hence constitutes a major piece of information, semantically coordinate to the first sentence.
On Limiting the Power of Transformational Grammars

This paper advances the hypothesis that deletion transformations can be restricted much more severely than they have been under the (standard) 'recoverability-of-deletions' condition of Katz and Postal. Peters and Ritchie have shown that transformational grammars with deletions (of a fixed set of terminal elements or of constituents under identity) are equivalent to Unrestricted Rewriting Systems in weak generative capacity. They have also shown that, given the 'recoverability of deletions' condition, the base component of a transformational grammar can be radically restricted without any effect on generative power.

The weak generative capacity of transformational grammars can be reduced to that of context-sensitive grammars (Type 2) if deletions are limited by a 'Strict Recoverability Hypothesis'. The hypothesis is equivalent to the claim that deletions are uniquely recoverable on the basis of surface structure alone. This seems certainly to be the case for deletions involving conjunction reduction (gapping and the like). For these structures, deletion is so strict that we do not even find it in such situations as: *Sam bought a Cadillac, and a Porsche by Bill (for Sam bought a Cadillac and Bill a Porsche) or *John hit and the dog was kicked by Max (for John hit and Bill kicked the dog). Other transformations involving deletion, such as Imperative, It-deletion, Wh-deletion, Equi-R, and Super-Equi, are examined and it is suggested that, of those that are viable, all obey the proposed hypothesis of strict recoverability.

The hypothesis has consequences beyond the limiting of generative capacity. For example, in The realization that his unpopularity deases Bill bothers Oscar the deleted subject of realization is unambiguously Oscar; but the pronoun his (a substitution, not a deletion) can refer ambiguously to either Bill or to Oscar. The fact that the pronoun his is not deletable here is a result that is predicted by the hypothesis of strict recoverability.

\[\text{(1a) [Gloria nervous]seems}
\]
\[\text{(1b) It seems that Gloria is nervous}
\]
\[\text{(1c) Gloria seems to be nervous}
\]

This type of analysis requires the additional ad hoc constraint that either Extrapolation or RSP must apply, since seem and appear do not tolerate surface sentential subjects. The situation is further complicated by the fact that seem and appear do allow sentential subjects when followed by an adjective, as in (2):

\[\text{(2) That Gloria is nervous seems strange}
\]

It is suggested here that seem and appear belong to the class of perception predicates, all of which are transitive in underlying semantic structure and all of which require a sentient "experience" NF subject. Included in this class are also taste, feel, smell, etc. If there is no overt surface experiencer, the underlying subject is Indef. Thus, (1b) and (1c) are represented semantically as (5):

\[\text{(3) Indef seem [Gloria nervous]}
\]

A more precise characterization of Psych-Movement is proposed, and ROP and Psych-Movement are shown to apply freely to semantic structures which meet their structural descriptions; no particular restrictions are required for seem and appear.

The general conclusion of the paper is that sentences like (4) are entirely analogous in their derivations to sentences like (5),

\[\text{(4) Kate seems upset (to NF)}
\]
\[\text{(5) The butter smells rank (to NF)}
\]

and that there exists no evidence for a single linguistic operation which raises the subject of a sentential subject.
Production and Perception: Their Respective Roles in One Case of Tonal Development

We have historical evidence from a number of languages (East and Southeast Asian languages, South African languages, etc.) that the loss of voicing contrast in prevocalic position can lead to tonal contrasts, i.e. the intrinsic perturbations caused by consonants on pitches of following vowels are reinterpreted and used linguistically. The purpose of this study is to investigate how and why this reinterpretation is made possible.

First, I will report on an experiment done with five American subjects (Experiment I), showing the effect of voiced vs. voiceless aspirated consonants on the pitch of the following vowel. These two fundamental frequency patterns differ in their direction of change (falling slope of about 50 Hz/sec after voiceless aspirated consonants vs. rising slope of about 80 Hz/sec after voiced consonants) as well as their relative F0 values (varying from a 15 Hz difference at the onset of the vowel to a statistically significant difference of about 3 Hz 100 msec after vowel onset).

Second, data obtained from 10 subjects (Experiment II) will be presented in order to show to what extent the differences established in Experiment I are perceptible. In Experiment II, synthesized speech is used; the stimuli have a constant duration of 250 msec and are composed by a slope (changing frequency portion) of variable length (40, 60, 100, 150 and 250 msec) followed by a level tone (steady state portion). The onset frequency (beginning point of the slope) was either 10 msec below or above the frequency of the steady state portion which was fixed at 120 Hz. Under these conditions, subjects perceived the two F0 patterns as significantly different when the changing frequency portion was longer than 60 msec.

These data then, allow us to define the narrow limits — both perceptual and articulatory — within which the development of tones from former voiced/voiceless stop contrasts is likely to occur.

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Passive Sentences with Indefinite Patients: A Case of Nonfunctionality

Psychological studies of the communicative function of the passive construction have generally indicated that the passive is employed in those circumstances when the patient is the topic or subject of conversation. Thus, in answering the question “What happened to the astronauts?” the response might be “The astronauts were attacked by the Martian.” Had the question been “What did the Martian do?” the passive response would have been inappropriate. It is also the case, however, that the use of definite and indefinite articles serves to mark the distinction between something already referred to, the topic, and something not previously mentioned. This raises a question about the communicative function of the passive construction when the patient is marked as nontopical by the use of the indefinite article. For example, consider the sentence “An astronaut was attacked by the Martian”. The use of the passive voice indicates that “astronaut” is somehow topical, but the indefinite article indicates that it is not topical, but new.

The thesis of the present paper is that such sentences, although perfectly grammatical, are nonfunctional and would not occur in natural language use. Two experiments have been conducted which support this position.

In the first experiment, subjects were asked to create questions for which specified active and passive sentences could be considered to be answers. In half of the cases the agent was marked as definite and the patient as indefinite while the other half were marked in the opposite manner. Subjects consistently produced questions about the patient or the agent for all sentences except the passives with indefinite patients. For this sentence type there was no clear tendency to ask about a specific entity. Subjects would sometimes create questions about the patient following the definite/indefinite markers, whereas other subjects would ask about the agent, consistent with the functional properties of the passive voice. This supports the hypothesis that this sentence structure contains contradictory information. Subjects’ responses depended on which cue they attended to.

In the second experiment subjects were given a question and a choice of answers expressing the same logical constituents but using active and passive structures with either definite or indefinite articles on the agent and patient. Subjects were asked to select which answer they felt was appropriate. Only one subject out of eighty selected the passive sentence with an indefinite patient as an appropriate answer to any of the questions. Only when the patient was marked as topic by both the grammatical structure and the placement of articles was the passive generally considered to be an appropriate answer.

These results are considered as evidence for the need for a new type of nongrammatical constraint on sentence acceptability. That is, some grammatical combinations produce sentences which are functionally unacceptable.
The SOV Cycle: Toward a Hypothesis of Word Order Change

Benefitting from Greenberg (1963), Lehmann (1973) and other scholars, the present author will propose a hypothesis on word order change. This hypothesis first distinguishes two principles in ordering: (1) an OV principle, according to which the secondary component is placed first and the primary one last. Consistent to this strategy, such sequences as S-OV, O-V, modifier-noun, adv-e-verb, and verb-qualifier are constructed. (2) The second, or VO principle, has a diametrically opposite effect. Taking the OV scheme as a basis, the VO scheme can be described as replacing the former. In terms of the major elements S, O, V, the change can be described as movement of the verb phrase (VP) and predicate phrase (PP). This movement process creates an SOV cycle as diagrammed below:

SOV → VSO → [VSO, VOS]

The course of change is reversible at any point on the cycle and three routes are distinguishable: I. SOV (→ SOV), II. SOV → SVO → SOV, and III. SOV → VSO → [VSO, VOS] → VSO → SOV. ('Free' word order is due to the competition among the movement rules.)

The VO principle usually operates on noun modifiers later than it does on the VP and the PP, and on route III, noun modifiers, once affected by the VO principle, do not change their position to conform to the OV principle until the final stage. This principle provides the following correlational forces found in VSO (or VOS) language, the relative clause and the adjective either usually, or at least as often as not, follow the noun. The VSO (or VOS) that has this trait and the SOV and VSO that have developed from VSO can be termed mature VO systems.

The mature VO characteristic can be utilized as a diagnostic device in reconstruction. If a language qualifies as a mature VO, it is placed on the 'away-from-VSO' half of the cycle, otherwise it is placed on the 'toward-VSO' half. (Both Portuguese and English, for example, have the SOV order. Yet Portuguese is a mature VO evolving away from VSO and English is an immature VO developing toward VSO.)

The author justifies the SOV cycle by using it to account for well-known order changes in Indo-European languages and by employing it to reconstruct little known changes in word order in Austronesian languages.

References


Abstract Ideas: The Relation of Linguistic Tense and Psychological Time

Recently Bransford and Franks (1973) reported patterns of false recognition of sentences with single as well as multiple predicates in a short term memory paradigm. Their findings suggest that subjects encode sets of related sentences in the form of "abstract idea sets" rather than as syntactic sequences. The present study was undertaken to determine whether logical relations among the constituent predicates of an idea set are coded in memory. The logical relations under consideration were those involved in the temporal specification of the constituent sentences of the idea set: that is, the temporal relations among the events in the idea set as specified by a Tense Logic of the Reichenbachian form. If subjects encode the temporal information as they encode the abstract idea (establish an event space), then the high rate of false recognition responses found in the Bransford and Franks paradigm should only be elicited when the recognition set sentences have readings of temporal specification consistent with the event space encoded from the abstract idea from the sentences in the learning set. In the condition in which there was no manipulation of the temporal specification between learning and recognition sets, the high false recognition rate reported by Bransford and Franks was observed. Likewise, when the tense-aspect of the recognition set was manipulated in such a way that the correct temporal order of events (predicates) was maintained, a similarly high false recognition rate was observed. However, in the condition in which the tense-aspect manipulations yielded different temporal orders of predicates in the learning and recognition sets, the rate of false recognition was significantly lower. This finding supports the hypothesis that abstract ideas are encoded in the form of event spaces which include those logical relations among events which are expressed in the temporal specification of the constituent sentoids.

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What Is a Stress Language?

While recent phonological research on prosodic systems has been concerned with the nature of tone, relatively little attention has been focused on universal properties of "stress". In this paper, I shall present results of an on-going cross-linguistic study of stress phenomena. I shall first address myself to the definition of stress (i.e. what makes a language a stress language rather than something else), and then turn to the nature of stress rules. Phonologists, phoneticians and historical linguists have defined stress both in terms of its linguistic function, and in terms of its phonetic realization. Thus, in Prague School terminology, stress is cumulative, and can be demarcative, intonational and/or grammatical. On the other hand, Jakobson, and others also distinguish between dynamic vs. musical stress, a dichotomy which is reinterpreted as stress vs. pitch-accent by others.

Bolinger and others have shown that changing pitch is the most effective acoustic cue of (primary) stress. However, as also noted, it would be a mistake to say that stress is changing pitch. Rather, stress is an underlying mental phenomenon (cf. Weinreich, Lehiste) which must somehow be realised phonetically in order to be picked up by the hearer. Thus, the two approaches (functional and phonetic) are not necessarily contradictory. In fact, in the second part of the paper, I shall show that it is impossible to explain certain universal tendencies in the placement of stress unless both factors are taken into consideration. Thus, in the study of stress placement it is necessary to distinguish "conceptual" vs. "phonetic" naturalness.

Conceptually, since stress ideally marks (word) boundaries (i.e. is demarcative), if stress is regular (predictable), it will better fulfill its linguistic function. It is also more natural if stress is located near a word boundary, rather than far from it. Thus, few languages place stress regularly on the third syllable, or on the antepenultimate syllable. However, this principle would predict that the two most frequent stress placements are initial and final positions. Penultimate position is much more frequently attested than final stress. To explain this, it is necessary to view the phonetic realization of stress. I shall present arguments that the fall in pitch from stressed to unstressed syllables is greater than the rise from unstressed to stressed syllables. It will be further argued that penultimate position optimizes the pitch fall. If a fall is realized on two syllables, it will involve a greater pitch interval and will be of greater perceptual prominence than a fall on one syllable. In addition, there is an articulatory complexity in realizing contours on one syllable rather than on two, as is evident from studies on tone languages.

Not only is the pitch fall of linguistic consequence in stress placement, but also the tendency for a stressed vowel to be lengthened. This, I shall argue, accounts for the phenomenon of syllable weight (Newman, Allen). In some languages (e.g. Latin) stress is assigned (e.g. penultimately), but a syllable of the shape CV must pass stress onto a neighboring syllable (e.g. antepenultimate), as opposed to CV, and CVC. If stress were assigned to a penultimate CV, the vowel would tend to be lengthened, and as a result the V/V: distinction would be blurred or conceivably lost. Evidence for this explanation is seen from the fact that languages which do not have a vowel length contrast never require that stress be realized only on a CV syllable, since there is no danger of merging and V: in a CV syllable.
Some Observations on the Perfect and Its Pragmatics - A Case Study from Japanese

At the 1973 Winter LSA Meeting in San Diego, I discussed one of the perfective forms in Japanese, TAKOT GA ARU as in John wa London ni ik-TA KOTO GA ARU "Speaking of John, he has been to London." One of its characteristics which I pointed out then is the fact that it conveys the 'recollective' meaning - as one is looking back on an event in the past and reminiscing about it.

The main point of the present paper will be on how the perfective forms in Japanese, namely, TA KOTO GA ARU and another form TE IRAU, which I will discuss in this paper, serve to convey not only the temporal distance between the speaker and the activity or event which occurred in the past, but also the spatio-psychological distance between the two, and possibly, the distance between the speaker and the addressee as well.

My discussion will proceed as follows: first, I will discuss the syntactic and semantic characteristics of the sentences with TE IRAU which express the universal reading, i.e. John wa 1-il kara mat-TE IRAU "Speaking of John, he has been waiting since three o'clock yesterday," the existential reading, for instance, John wa London ni it-TE IRAU "Speaking of John, he has been to London." I will then point out some differences between TA KOTO GA ARU and TE IRAU, e.g. while John wa ikko de ude o nakushi-TA KOTO GA ARU is unacceptable, John wa ikko de ude o nakushi-TE IRAU is perfectly acceptable although both can be translated into "Speaking of John, he has lost his arm in an accident."

Second, I will show that the existential reading of TE IRAU conveys what I call the 'reportive' meaning. That is, the statement in TE IRAU is based on some evidence, and therefore, it is an objective statement. Thus, this expression conveys a meaning which is distinctly different from TA KOTO GA ARU which conveys the recollective and more subjective or personal feeling of the speaker.

In Japanese, then, those perfective forms not only express the temporal relationship between the activity or event and the speaker, but they also serve to convey the spatio-psychological distance between the speaker and the event, and possibly even between the speaker and the addressee as well. Since each language has its own distinct ways of expressing different features of human mental life, English, for instance, in its present perfect may not overtly mark this particular distinction. I suggest, however, that an exploration into such possibilities as a legitimate part of linguistic investigation may have some interesting surprises for us.

The Role of Deep Structure Command in Defining Quantifier Scope

Quantifiers interact in two types of surface configurations: they may be members of the same clause, or members of two different clauses. Concerning the second configuration, current linguistic theories predict that the quantifier in the superordinate S at the surface level will receive higher scope assignment (Lakoff: 1971, Jackendoff: 1972, and Chomsky: 1971). This paper gives evidence to show that the surface command relationship is inadequate to predict scope assignment. Syntactic deep structure command relations as defined by the Standard Theory are more important in determining scope interpretation.

The (a) and (b) sentences in the following complement constructions are assigned the same structural description at the surface level by the Standard Theory.

<table>
<thead>
<tr>
<th></th>
<th>(a)</th>
<th>(b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>a. I persuaded a foreign student to enroll in every course.</td>
<td>b. I expected a foreign student to enroll in every course.</td>
</tr>
<tr>
<td>2</td>
<td>a. A senator is anxious to speak at every rally.</td>
<td>b. A senator is likely to speak at every rally.</td>
</tr>
<tr>
<td>3</td>
<td>a. An interesting conversationalist expects to be invited to every party.</td>
<td>b. An interesting conversationalist seems to be invited to every party.</td>
</tr>
<tr>
<td>4</td>
<td>a. A cake is ready for anyone to ice.</td>
<td>b. A cake is easy for anyone to ice.</td>
</tr>
</tbody>
</table>

Though the surface command relations are identical in the (a) and (b) pairs, the sentences have different preferred scope interpretations. Contrary to predictions, in the (b) sentences the quantifier in the lower S (and occurring rightmost in the tree) receives wider scope assignment on the preferred reading. The (a) and (b) sentences have different derivational histories in the Standard Theory and therefore differ from each other in their underlying command relationships. The (a) sentences result from equ NP deletion, while the (b) sentences have undergone a raising transformation. These distinctions provide a way of explaining the differences in scope interpretation. A quantifier must command at both the deep and surface levels to receive higher scope assignment.

Several implications follow from this realization:

1. The Generative Semantics model must define an underlying syntactic level to occur after predicate raising and before the application of cyclic transformations in order to correctly identify the underlying command relations needed to predict scope interpretation.

2. Interpretivist Semantics, in redefining the derivation of complement constructions so that deep and surface command relations are frequently identical, will have difficulty assigning the correct scope readings. In addition, their claim that logical relations are interpreted from the surface alone must be rejected.

3. The Standard Theory offers the best syntactic analysis of complement constructions in that it provides the necessary information for the semantic component to interpret quantifier scope.
Balto-Slavic Presents in -i-

The Balto-Slavic a-statives are represented in Balto-Slavic by verbs with infinitive stems in *k- (e.g., 14th cent. minšt. 'remember', OCS сазвати 'say') and present stems in *-ti (Baltic: cf. Lith. *tis 'he', 3 sg. *tis, 1 pl. *tisme) or *-I- (Slavic of OCS сазвати 'say', 1 pl. *тизимо; *тажимо). While the historical affixation of the a-stative morpheme *-t- are well-known, the origin of the present marker *-I- remains obscure. One widely-held theory (Stange, Wallet, etc.) views *-I- as the a-stative or "semithematic" (cf. Lith. 1 sg. minšt. OCS сазва̀ти) equivalent of the IE stative/intransitive suffix *-t- (e.g., Ck. ма̀та, Sks. манъяте 'think', etc.); this explanation is badly compromised by the absence of comparable non-thematic forms in Indo-Iranian, Mittite and Greek. Likewise unsatisfactory from a morphological point of view is Schmid's attempt to reconstruct *-t- (cf. Lith. 1 sg. minšt. OCS сазва̀ти) as the inherited ending of the 3 rd person perfect, which cannot account for the form of the a-stative in Latin and Old Persian.

Present stems in -I- occur in another Slavic category—the inherited iterative-continuous with infinitives in -iti (e.g., осоза̀ти, 3 sg. -iti 'hear'). There is evidence that this type, in which -I- probably continues IE *-t-, was originally found in Baltic as well. It is possible, therefore, that the Slavic a-statives in *-I- owe their long vowel to the influence of the Balto-Slavic present, and that the *-I- presupposed by Baltic forms like Lith. minšt., Ck. -iš, etc. continue the earlier state of affairs.

Among the a-statives reconstructible for Baltic and Slavic are several which go back to old perfects; one of these, Lith. гадыть 'burn', is found in both branches. There is some reason to believe that in Balto-Slavic times the perfect had a "mixed" inflection like that still preserved in the verb 'know' in Old Prussian 1 sg. wadāi, 2 sg. wadai, but 1 pl. wadi:ml, 2 pl. wadi:mi: it is clear in this case that the -I- of the plural forms has been generalized from the inherited third person plural in *-t- (< *-t- > *-Ir > *-I-I>) A similar development can be assumed to explain the spread of -I- as a union vowel in the Baltic future (Lith. 1 sg. bësyt, 1 pl. bësime, but 3 bësia). A significant number of Balto-Slavic a-statives in *-I- can be matched with Indo-Iranian or Greek root aorist middle, of, Lith. minšt., OCS сазва̀ти; Ved. амата: Lith. бëгти, OCS сазва̀ти 'is awake'; Ved. अभिज्ञता: OCS ёвнёти 'lies'; Ck. лёкто. In several IE languages such root aorists appear to be the direct source of presentatives; thus Toch. B युक्तिक 'shines' represents 3 sg. aor. *yukti, redundantly suffixed further by 3 sg. *-to: Ck. мандо 'indicates' continues 3 sg. *mandi (with suffixed 3 sg. *-to). Assuming an identical development for Balto-Slavic we may predict a 3 pl. form *minštita *ното(1), or, with conversion to the corresponding active ending, *minštita. By the generalization of -I- from the third plural, such a form would regularly engender Balto-Slavic 1 pl. *minštita, 2 pl. *minštita once established as a thematic vowel in the plural. *I- would have been free to spread to the singular in a variety of ways.

Some Properties of Stress-accent Languages

McCawley 1964 contends that, in terms of the information required in underlying forms of morphemes, the primary typological distinction is between tone languages and non-tone languages; no further distinction being required among non-tone languages. I will argue that on the basis of the types of rules required, there is a major typological difference among non-tone languages, which have a rule of accent spreading, and stress-accent languages, which do not. Halle 1973a and Kiparsky 1973 have analyzed the Proto-Indo-European accent system as a pitch-accent system, based on evidence from Greek, Sanskrit, Lithuanian, and Slavic, which are best analyzed synchronically as having pitch accent systems. The Germanic accent system is innovated in replacing the original pitch-accent system with a stress accent system. I will show that English, in particular, cannot be a pitch-accent language by showing that it cannot have a rule of accent spreading, and then extend this conclusion to Swedish, which superficially appears to have a pitch-accent system (Pike 1948, Lehiste 1970).

In languages with accent spread rules, the direction of spread determines certain other facts of the language: if the spread is leftward, the most accent of several in the same word prevails, and if a potentially stressed vowel is deleted or turns to a glide, the surface stress moves one vowel leftward, examples of this being Russian and Japanese. In languages with rightward spread, such as Greek and Sanskrit, the reverse occurs: the largest accent of several in the same word becomes the most stress. There is systematic variation in noun-verb pairs like τοξόν (N) torment (V); dialectal variation in λόστο (American) locate (British); Proto-Indo-European variation in thirteen (phrase final) thirteen men; and random variation in chimpasenep amphitheatres. 2 English has a rightward process that determines the position of stress, including a rule like Verber's Law (exit < ex) but exist < es). When aspiration: éntity but éntity. It appears to be the case that languages with pitch accent systems do not have such processes; neither Russian nor Japanese has a phonetic process of stress spreading or any rule like Verber's Law, apparently because a rule of accent spreading in either direction would destroy the crucial environment for the rule. Swedish also has a rule of stress spreading similar to English, and accent variation: känslə or känäl 'chancellor', kälstra or kälstra 'to caulk', and stress-subordination, manifested in tone II words, which lose their tone in compounds, while the compound as a whole receives tone II: åppəl, åppəlvin. If my hypothesis is correct, this entails that Swedish cannot have an accent spreading rule, and thus cannot have a pitch-accent system. I will argue for a system of stress rules for Swedish similar to those proposed by Halle 1973b for English; a late rule assigns tone II to those words, simple or compound, that contain the stress pattern 1 x 2, where X contains no stress stronger than 3. This is not a very surprising conclusion in view of the mass of experimental evidence that the main acoustic correlate of "stress" in many languages is actually pitch (Lehiste 1970). This author is currently engaged in experiments designed to compare the pitch of English and Swedish utterances in words, compounds, and larger units; if completed by meeting time, the results of these experiments will be presented as additional evidence for or against the position I have defended. Halle 1973a The accentuation of Russian words. Language 49, 312-288 Halle 1973b Stress rules in English: a new version. LI IV 451-464 Kiparsky 1973 The inflectional accent of Indo-European. Lg 49, 79-839 Lehiste 1970 Suprasegmentals. MIT Press McCawley 1964 What is a tone language? ISA Summer meeting, Bloomington Pike 1954 Tone Languages. University of Michigan Press
At the turn of the century several hundred thousand Finns, most from the Ålandian province of Finland, emigrated to the United States and Canada. From the very beginning of contact with English, the speech of these Finns in America became strange to the point of unintelligibility to non-emigrant Finns. However, field-work done in the 1960's among the Finland-born (then in their 70's and 80's) as reported by Virtanen ("Finnish in America" Ouvrage Institute Linguistique Finnois, Universite de Helsinki, 1969) and Karttunen ("American Finnish" unpublished mimeo, 1966) revealed their "Finglish" to be unaltered Ålandian Finnish. Its unintelligibility to old country Finns lies wholly in its stock of English loan words. These English words have been assimilated for the most part by the same morphological principles by which this dialect of Finnish had previously assimilated Swedish vocabulary. We call this Finglish 1. It is spoken by the Finland-born and to some extent by their oldest children.

Recently we came across a corpus of another variety of Finglish, which we shall call Finglish 2. Finglish 2 is virtually uninflected with only an occasional partitive relict. There is not much native Finnish vocabulary left either. But the Englishizes of the English loans of Finglish 1 are pervasive. Also characteristic of Finglish 2 are unanalyzed forms such as kaus: < got to konuh < going to, petuu < hat you (as in I petuu poeta nii "I bet my boots") and kimme < give me (as in kimme hol-pin: "Give 'er hell, boys!", kimme tat for ali "give that to me", and juu kimme for ali first, teni kimme for you: you give (to) to me first, then I give (it) to you". (The notation of the corpus employs both English and Finnish conventions.)

It seems unlikely that Finglish 2 could become fully intelligible to monolingual speakers of Finnish or English. To understand and speak Finglish 2 one must have a passive knowledge of Finglish 1. For this reason Finglish 2 must also be a single generation phenomenon.

Finglish 1 is Finnish, and Finglish 2 is English, but they share common, productive Finglish morphological principles, the legacy of speakers of one language to speakers of the other. We will describe this legacy.

Recently the role of the morpheme as the relevant domain for the expression of phonotactic constraints has come under fire. Kim and Hyman (LSA winter, 1973) state, "...all phonological and phonetic constraints and processes (rules) can be adequately stated in terms of syllable and word boundaries, and that morpheme boundaries have no place in generative phonology" (91). In a similar vein Hooper (ms. "The archisegment in natural generative phonology", 1974) writes, "...phonotactic constraints are based on the syllable and cannot apply at the level of the morpheme. They must apply at the level of the word, for words are the smallest units that are necessarily comprised of complete syllables" (8). In this paper I will show that there is a phonotactic constraint operating in Desano, a language of the northwest Amazon basin, which can only be expressed at the level of the morpheme.

Desano has an extremely simple syllabic structure: CV or V, i.e. only open syllables. Furthermore syllables are either entirely oral or entirely nasal. Let C and V be arbitrary oral consonants and vowels and N and Y be arbitrary nasal consonants and vowels. CV and NV (as well as V and Y) are possible syllables but not CV nor NV. Now in Desano and every morpheme is either all nasal or all oral. There are no exceptions. Given the fact that morphemes may be polysyllabic it is clear that the syllable is too small a domain to express the limitations on possible morphemes. Thus, morphemes of the shape CVNV (yukí 'wood') and NVNV (namí 'night') are possible but *CNVY and *NVNV, both of which obey the syllable constraints, are not.

It is equally clear that the word is not the correct domain on which to express the relevant constraints in Desano. Words containing the syllable structure CVNV (e.g. song 'for them to relax') and NVCV (e.g. ngabi 'I ran (remote)') abound. In every case a morpheme boundary coincides with the change in nasality.

Thus, the domain of this phonotactic constraint is larger than the syllable and smaller than the word. It is, in fact, the morpheme. This analysis is supported by the treatment of loan words (Portuguese Maria becomes Desano maria rather than the phonetically possible maria) and by historical change (whole morphemes become nasal in Desano rather than syllables or words).
Towards a Universal Definition of 'Subject of'

We report here on a cross language study designed to determine the universal properties of subjects. The motivation of this study is the validity of certain recent generalizations which take notions like subject as primitive e.g. The Accessibility Hierarchy (Keenan and Comrie), The Functional Succession Principle (Perlmutter and Postal). Such generalizations require that subjects of sentences from an arbitrary language be identifiable in a non-arbitrary, that is, language independent, way.

An initial checklist of 26 subject properties was proposed. About half of these occurred frequently enough to warrant comparative study in the languages of our sample (currently 14 in number, selected for typological diversity). The results:

(i) There is no single, universal, defining property of subjects. Rather, subject is a cluster concept: A subject NP usually has most of about a dozen properties, some of which are more important than others. Languages are exhibited in which the NP having a majority of subject properties fails to have one of the more general ones. (E.g. in Tseltal, and other languages, the subject NP usually follows the other NPs in unmarked word order; in Dyirbal and Eskimo subject NPs appear not to undergo relativization or Equi; in Tagalog subject NPs may occur as anaphoric reflexives).

(ii) Some languages (Hindi, Hungarian) are shown to be "subject-prominent" in that a single NP has a large majority of the relevant subject properties. In these languages the subject/non-subject distinction is shown to be an important primary relation. Other languages however (Samoan, Maori) are "subject-diffuse" in that for certain sentence types the subject properties are shared by two NPs. Such languages are shown to rely more heavily on primary relations like left-right order, which can be stated independently of notions like subject of, than is the case with subject-prominent languages.

The Expression of Time in Language Acquisition

This paper is concerned with how the child uses linguistic structures which temporally relate 2 independent events. The research discussed here is part of a larger study which tests the hypothesis that the child learns to express sequence (before, after) prior to simultaneity (at the same time, while).

The concept of simultaneity has been given varied interpretations in the literature. Clark (1970;1971) considers simultaneity to be 'time at which X'. In this view the child's use of today and now marks simultaneity. Here two different events are not temporally related, rather one event is marked in time. The present investigation instead, considers the acquisition of simultaneity in terms of the child's ability to relate two spatially distinct events. In that sense simultaneity is 'time at which X and Y'.

Thirty-two children from 3 to 5 years were asked to imitate sentences containing the following temporal constructions: 1) before C1, 2) after C1, 3) before C1, after C2, 4) before C1, after C2, and C2 at the same time, 5) C1 while C2.

It was found that sentences expressing sequence were imitated correctly significantly more often than sentences expressing simultaneity. The order of acquisition, based on significant differences in the number of errors produced on imitations of the test structures were:

A. Descriptions of 2 events in their order of occurrence (1-6 above);
B. Descriptions of 2 events in reverse of their order of occurrence (5-6);
C. Descriptions of 2 events which occur simultaneously (7-8).

It is difficult to predict these results on linguistic grounds alone. For example, before, after and while are all proverbialized as de*Trns* and pro-nominalized as then. In addition, the object of the verb in these clauses cannot be questioned or relativized (Geis, 1970). The coordinate and subordinate clause sentences investigated permit verbs in the same or different aspect (Gendetski, 1974).

In addition, such notions as derivational complexity fail to account for the results since C, before C, and C, while C, share similar transformational histories. Similarly, at the same time can be viewed as a specified coordinate clause which, according to some views, ought to be acquired before subordinate clause constructions. However, the data revealed that it was acquired after several such constructions.

This paper argues that children learn to express sequence first because it is cognitively simpler. A variety of psychological experiments supports such a view. First, Piaget (1969) found that children below 5 years are unable to determine that 2 events that cease simultaneously are in fact simultaneous. "...he (the child) fails to appreciate the simultaneity of the end points because he fails to attribute a common time to these separate actions"(p.134). Second, Ferreira and Sinclair (1971) found that young children tend to focus on one event in a pair, resulting in an inability to coordinate two events into a coherent unit.

The significance of this finding is discussed for cognitively oriented theories of language acquisition. Implications for the role of semantics in child language are considered. A non-additive hierarchical model of lexical
On Pragmatic Inference and Communicative Strategies: The Problem of The Dutch "Pseudo-passive"

Unlike the "true" Dutch passive in (1), the so-called "pseudo-passive" in (2) refers only to human actions -- to events caused by specifically human agents, not inanimate forces or instruments:

(1) De huizen werden verwoest. 'The houses were destroyed.'
the houses became destroyed

(2) Er werd gefloten. 'People whistled; someone whistled,'
there became whistled

Faced with this fact, Dutch grammarians of all theoretical persuasions have denied that there is any syntactic or semantic relationship between the two passive forms. Nevertheless, their own attempts to link the "pseudo-passive" to other, impersonal constructions fail in many ways. Crucially, they do not explain why only those impersonal sentences which refer to human activities just happen to resemble "true" passives.

The present paper rejects the grammarians' view and argues that there is but one Dutch passive which, in both its "uses," signals a single, rather abstract meaning: HIGH PARTICIPANT NOT FOCUSED. The specialized interpretation of the "pseudo-" form is then shown to be a pragmatic inference from (a) the meaning of the passive, and (b) the avoidance of competing "impersonal actives" and deverbal nouns, all of which may be used to refer to events without raising the issue of the relative agent-likeness of participants.

The central argument is that the meaning of the passive lends itself to two distinct communicative strategies according to the reason for the defocusing (de-emphasis) of the high participant. If, as in the "true" passive, the high participant is defocused (backgrounded) solely to focus on (foreground) a low participant (e.g., a dative or patient), little information is gained about the high participant itself. The backgrounding is merely a means to an end; one cannot derive from it the kind of causation that is involved. On the other hand, if, as in the "pseudo-passive," one claims high participant not focused without placing focus elsewhere, it may be inferred: (i) that it is relevant to signal explicit that the participant is agent-like, and (ii) that, without expressed defocusing, this high participant would be the center of attention. Given (a) that humans are high participants par excellence (Cohen 1972, Zubin 1972) and (b) that people tend to talk about people (Givon 1974, Hawkins and Hyman 1974), the most obvious conclusion for language users is that the high participant is a human agent. This "natural" inference is reinforced by the fact that, if agentivity were not an issue, passive morphology could be bypassed altogether.

The analysis presented here thus supports the following theoretical claim: By positing invariant signal-meaning relationships and by recognizing both the communicative strategies and pragmatic inferences to which they lead, one may indeed explain rather than merely describe the data of language.

Temporal Dimensions in the Syntax of the Particle u in the Rigveda

The particle u is one of the most interesting of all the particles found in Vedic Sanskrit. The varied employment of u in the Rigveda can be reduced to too different but related functions: a coreferential function and a conjunctive function. In the former case u regularly follows one or more of a set of terms having the same referent. In its conjunctive function u appears following verbs, preverbs, and adverbials and means simply 'and'. In this paper u will be concerned with tracing the development of these functions in their historical dimensions. The most important types of coreferential constructions in which u occurs in the Rigveda are those in which the particle follows a form of the a-stem pronoun which is analogous to a preceding relative pronoun, demonstrative pronoun, or noun:

(a) ya dha it tum a suumu (VI.2,12a)
The one who is indeed unique, that one praises.

(b) tum eva fgg. tumu brahnaham bhuh (X.107,6a)
'That one, indeed, do they say to be a rishi, that one a Brahan.'

(c) agnir jagara tum a samdyanti (V.3,158)
'Agni is singing. Unto him do the songs go.'

In its conjunctive function u occurs in the Rigveda in sequences involving the repetition of preverbs and verbs:

(2a) 

Out shone the fires, and out (shone) the sun.

(b) 

'O Agni, I have extended secure dwelling to the Rohini, and I have extended a hymn to the liberal ones.'

Given these two basic employments the coreferential usage of u must have preceded its conjunctive usage. Furthermore, the point of contact between the two types must have been usages of the type tum...tumu. This is so because it would have been very easy for an original asymmetric construction 'that one that one' with a merely redundant to have become reanalyzed as meaning 'that one...and that one', with the result that u could thereafter be employed not only within repeated terms of reference, but also with repeated nonreferential terms such as preverbs and verbs in the sense 'and...'. On the other hand, the opposite development, whereby u would have originally been used conjunctively and then have developed a coreferential aspect of use, is semantically impossible. For sequences of the type ya...tumu mean which one...that (very) one...and not which one...and that one.' Future discussions of the Indo-European origins of u as well as future translations of the Rigveda should take into account this new understanding of the development of u in our oldest Indic text.
The Scope Semantics of Logical Operator Words for a Fragment of English

Sentences containing two or more scope-inducing operator words (quantifiers, negative elements, modals, etc.) are often ambiguous as to the scope order of these operators in semantic interpretation. A number of factors influence the possible scope orders associated with given sentences, including surface order, the lexical characteristics of operator words, and constituent structure. There are, in particular, systematic differences in the scope behavior of universal versus existential quantifier words and definite versus indefinite determiners. In this paper we shall describe these differences and attempt to account for them with a theoretically revealing formal mechanism.

We shall be concerned to explain, for instance, why under normal intonation sentence (1) is ambiguous as to the scope order of many and not while sentence (2) allows only the order not-all and sentence (3) only the order some-not:

1. John didn't see many of the games.
2. John didn't see all of the games.
3. John didn't see some of the games.

We conclude from examples like the above that the basic scope order of operator words in English follows surface structure order and that other words are accounted for by semantic reinterpretation rules that change the initial scope order in certain environments. Where expected orders do not exist, they are ruled out by output filters. Our analysis refines and extends earlier work in the interpretivist tradition (Jackendoff 1969, 1972; Lasnik 1972), and we accept these authors' arguments for interpretive semantics. We note, however, that the analysis we present could be reformulated in a generative semantics framework without any essential difficulty.

Perhaps the most interesting consequence of our analysis is the discovery that determiners in English come in paired categories of universal and existential quantifier words which take opposite scopes with respect to negation. These category pairs, include no-/any-, some- vs. several etc./all every- etc.: and indefinite/definite determiners. Thus, no-words consist of a negative element and an existential quantifier with an obligatory scope order of negative-existential while any-words (in negative contexts) are universal quantifiers outside the scope of the negative. By contrast, quantifiers of the some-, several category are existential quantifiers that generally appear outside the scope of a negative while their pairs in the all, every- category prefer narrow scope with respect to negatives. Finally, on the interpretation we shall present (in which indefinites are existential quantifiers and definites are universal quantifiers) indefinite determiners have narrow scope with respect to negatives and definite determiners have wide scope with respect to them. We cannot at present explain the existence of these category pairs. We note, however, that the contrasting scope orders associated with the members of each pair are logically equivalent since NOT-ALL :: SOME-NOT and ALL-NOT :: NOT-SOME.

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Hopí-Tewa Relative Clauses

Hopí-Tewa is a dialect of Tewa, a Tanoan Language, spoken in First Mesa of the Hopi Reservation. It is related to one of several non-Indo-European characterized by Hale (1970) as problematic for most transformational analysis of relativization. This paper will not concentrate on weighing the merits of previous analyses (Chomsky 1965, Annear-Thompson 1971, Sebechler 1972), and others) but rather illustrate the lack of transformational artifact necessary to account for the Hopi-Tewa data. In short, what I propose is a descriptively adequate solution in accord with the strong lexicalist hypothesis in which no phonological material is transformationally introduced or deleted. This solution is accomplished by embedding the attribute S under the NOM node dominated by the NP containing the head. The REL-marker is directly generated by the P-rules under the KOM node. This economical analysis is by no means theoretically predetermined but rather independently motivated by consideration of the data which I will now exemplify:

\[
\begin{align*}
S & \quad 0 \\
& \quad \text{REL} \\
V & \quad \text{Pro}
\end{align*}
\]

no' n1'14 be-71-dā 6 hēy-71 dā-mun
Pro N Dēctic-PRO-Agent Pro-V Pro-V
I chicken that-one-by 3rd was-kill-one 1st-see
I see the chicken that was killed by that one.

It may be noted that, like many non-Indo-European languages, Tewa lacks relative pronouns. The third person pronoun (71) placed clause-finally functions as a REL-marker. This may seem to invite identification of the phenomenon as clausal nominalization. I refrain from this identification for two reasons. One, syntactically, the verbs contained in these constructions may be suffixed with the entire set of tense and modality markers. Pro, as Sebechler (1973) has noted, despite the functional similarity of nominalizations and relativization—the creation of new nouns—only in the latter instance is there the division of underlying sentential material into modifier and head. In these constructions, Tewa (71) pronouns like English relative pronouns, are in some sense identical with the head.

In addition to economy, my analysis possesses other merits. It captures morphological similarities between demonstrative pronouns like ho71 above and relative clauses by permitting the expansion of KOM in the following manner:

\[
\begin{align*}
\text{KOM} & \quad \{S \quad \text{Pro} \}
\end{align*}
\]

This provides a unitary account of the phenomena, avoiding the dubious claim of two homophones (71) in Tewa—an undesirable claim because of further syntactic similarities.

The significance of this solution lies in the coupling of simplicity and motivated capturing of important syntactic generalizations. It provides new evidence for the interpretive approach to relativization.
The Grammar of "Cat" and "Mama"

It is usually considered that the acquisition of syntax and of propositional semantics is correlated with the mean length of utterance [MLU], and some investigators believe that children do not construct sentences or propositions at the one-word stage. This paper will show that some learning strategies are not so dependent upon the acquisition of vocabulary.

A total record was made of the early utterances of Jessie, a fifth-born child, over a period of six months when her productive use of language was primarily two-word utterances: "cat" [cat?] and "mama" [mama]. During this period she developed in succession a number of linguistic skills of a relatively high order of complexity. Identification of the referents of cat and mama was carried on intensively (up to 350 tokens a day), utilizing the features [animate] and [human]. A conjunctive definition of mama was established, coinciding with her nuclear family; this gradually contracted to the prototypical member, her mother. On the other hand, cat expanded to include a wide variety of animals defined around a core set of features. Data derived from Jessie's response to 80 species of animals shows that each feature contributed independently to the probability of the term cat denoting, in a manner similar to the responses of adults to experiments with a continuous range of everyday objects.

Six other words were explored by Jessie during this period; three developed into associational complexes which then split into homonyms. Four-element syntactic strings were developed by combining gestures with single words.

For most of this period, the language system centered about the one-word utterances was devoted to existential propositions. In the later stages, the interactive use of language was developed intensively, beginning with vocatives, complaints, and requests for action. As this development accelerated, the lexicon was reduced to a different two-word set, "mama" and "dada".

These data show that the acquisition of words is not a necessary pre-condition for the development of syntactic, semantic and pragmatic skills, which can develop independently as in the learning strategy utilized by this child.

Based on evidence from the American Sign Language of the Deaf, this paper provides a special kind of supporting argument for an independently motivated analysis of pronouns in McCawley's "Where Noun Phrases Come From?" (1970). There he distinguishes between sentences and propositions, a proposition becomes a sentence when it is indexed, and a sentence becomes a proposition plus a sequence of indices, which are themselves indexed. Whenever a rule of Noun Phrase Substitution fails to substitute a description of an appropriate index, that index--after any agreement operations and the assignment of indices--surfaces as a pronoun.

In his absence from McCawley's argument is the kind of strong surface-syntactic "existence argument" which characterizes earlier generative semantics analyses, and which demonstrates that the formal properties of the abstract forms posited to underlie a range of phenomena actually receive a more or less direct surface instantiation in at least some cases. Specifically, it is noted that there are at least four salient properties which indices possess but oral language pronouns do not. 1) There is an indefinitely numerous vocabulary of distinct indices. 2) Logical indices can be and are assigned in such a way as to insure that each discourse entity is consistently assigned its unique index (i.e. it always has the same index and its index is distinct from that of all others). The hopeless ambiguity of sentences like "John yelled at Bill, and then he hit him" illustrates the inability of surface pronominal systems to consistently meet this condition. Logical indices have no intrinsic semantic content. Assuming 1) and 2) hold and the problem of determining the semantic referent (i.e. what) becomes considerably simplified in a system with subscripted indices, they reduce to the problem of matching subscripts. Given that it is impossible for the pronominal systems of oral languages to maintain the above properties of indices in a consistent way, the paper demonstrates that with the exception of 3) it is possible, hence not always necessary, for ASL's pronominal system to do so. Thus at least one natural language, pronouns may more or less directly instantiate the abstract entities that underlie them.

I will briefly illustrate this by showing how a subset (the "non-animate, non-deictics") of the ASL pronouns typically used to refer to objects up to at least one other parameter the distinctive parameters of "Tab" (specific location of hands) and ORIENTATION (of hands). Specifically, all of them were within the confines of a semi-circular plane encompassing the major portion of the signer's body, at approximate mid-torso level. Establishing pronominal reference over a discourse the signer chooses to any naturally bounded part of this plane and through the making of distinct locating and orienting) of the pronouns themselves eventually uses it into n+1 (ideally equal) segments, where n = the number of distinct pronouns to be created. Clearly, such an open ended algorithm which assigns an indefinite number of distinct pronouns (property 4) may be met by special virtue of the fact that an NP in any optionally has as a constituent a pro-form whose essential semantic properties match those of any full pronouns that may later take the place of the NP. To illustrate the consequences of this note the hopelessly ambiguous English sentence above may appear in ASL as follows: [Pi YELL BILL [Pi FINISH [Pi HIT [Pi [Pi IS DISTINCT FROM [Pi [Pi IN LOCATION & ORIENTATION]]]]]]
San Basilio de Palenque - a 'Post-Creole' Community?

Until recently, (Granda (1968), Lewis (1970), Escalante & Sickenert (1970)), no positive claims had been made for a clearly defined creole language in the Afro-Hispanic New World. (N.B. Papiamentu is generally regarded as Spanish-Portuguese based.) In this paper, I propose to examine the linguistic situation as obtains in the "naroon-slave" community of San Basilio de Palenque in the department of Bolivar, Colombia, South America, with a view to the following:

(a) to provide conclusive evidence that various aspects of the syntactic and phonological structure of the so-called Palenque dialect are not of Hispano-Romance origin, and justify arguments in favor of a markedly creole character.
(b) to show that the considerable degree of linguistic variation existing in that speech community may be best explained in terms of a "post-creole continuum" (DeCamp, 1971), where the creole language/dialect is in the process of merging with the corresponding standard language, whose lexical base it shares to a large extent, but with which it is not mutually intelligible.
(c) to discuss the implications arising from such variation for dynamic descriptive models in linguistic theory.

References:
Granda, German ds. 1965. La tipología de dos hablas del área linguística hispanica, Boletín del Instituto Caro y Cuervo 29, 193-205.
Physiologic Structuring Principles and Phonetic Theory

Traditional phonetic theories like that implicit in IPA notation have been structured in terms of the possible maneuvers of the vocal tract. Feature theories like that of the "Sound Pattern of English" are derived from the 19th century "Visible Speech" theory of Helville Bell which ultimately formed the basis of IPA notation. The Chomsky-Halle theory does not significantly differ from the IPA theory. The anatomy of the vocal tract and observations of the tongue, lips, etc., furnish the primary data base for these theories. Acoustic measurements and perceptual considerations derived from the constraints of auditory perception have a secondary role in these traditional theories. The physical correlate of a feature is usually a particular articulatory maneuver, e.g., High Tongue. Features are often related to the activity of a single isolated muscle, e.g., the constriction of the levator veli-palatini muscle is presumed to be the muscular correlate of the feature state -Nasal. Recent advances in our knowledge of both speech production and speech perception show that these theories are descriptively inadequate and that functional, i.e., physiologic principles may instead structure phonetic feature theories. 

Physiology is the science which treats the activity of the body in terms of function. The principle of Acoustic Stability, first formulated by K.-K. Struberg in his Ponto-cerebellar studies, relates articulatory maneuvers to their perceptually significant acoustic consequences. Certain articulatory configurations yield sounds that don't change: when the speaker is sloppy and makes small errors. The vowels /æ/, /ʌ/, and /ɜ/ are istable and hence have a greater signalling value than -stable vowels like /i/ and /u/. The principle thus explains why these vowels occur more frequently in human languages. The principle of Acoustic Stability also predicts the presence of four regions for consonantal articulations that appear to be universal in scope. We will discuss this principle and a second one, Determinateness, which involves the relationship between an acoustic pattern and particular underlying articulatory configurations. The vowels /æ/ and /ɜ/, for example, are Determiante. The formant patterns that specify these vowels can be related to particular vocal tract shapes. This is not the case for -determinate vowels like /i/ or /u/. The articulatory specifications of these vowels given by traditional phonetic theories are meaningless. These two physiologic principles which, among other principles, structure the phonetic feature matrix will be illustrated with data drawn from recent cineradiographic and acoustic studies of Perkell, Ladefoged, Gey and others. The data demonstrate that (1) phonetic features have a physiologic basis that is at once more abstract and more meaningful than traditional notions of relevant physical correlates, and (2) that the "firm foundation" of traditional phonetics is a quicksand.

The Implications of the Tonogenesis Theory

Matfoss (1973) has expanded into a coherent theory of tone origin in 'monosyllabic' languages a proposal originated by Haudricourt (1954). The tonogenesis theory proposes that tones develop in languages like Thai, Vietnamese, Cebuano, and many Tibeto-Burman languages when the canonical shape of the segmental-level syllable is reduced, or when the number of fillers of a canonical slot is lessened by the loss of whole classes of segments. Simultaneous with such loss, nondistinctive features associated with the lost segment(s) become distinctive suprasegmental features. Thus, pre-Vietnamese *-b- and *-g- respectively led to falling and rising tones, and the merger of voiced and voiceless initial stops in Chinese led to two distinctive tone registers in many dialects.

Important for the understanding of linguistic change through time are several implications of the tonogenesis theory.

1) Matfoss's 'tone proneness', which leads to an overly small segmental syllable inventory and thus produces tones, requires a phonological description. It is proposed that the phonological impact to syllable reduction is the development of strong sequence structure constraints in languages of merging and losses. These constraints prohibit most combinations of phones, and the language has no room to develop segmentally. Examples from Chinese.

2) The replacement of segmental distinctions by tonal distinctions gives credence to one type of functional load argument because in the case of tones, reduction does not lead to loss on a phonological level. The hypothesis concerning the relative usefulness of given phonemes (such as that refuted by King 1967), but on a clearly observable development of canonical category to replace a lost canonical category.

3) Understanding tonogenesis as the replacement of one category by another opens the way for recognizing a tendency towards the preservation of critical material in compensatory linguistic change. While this tendency underlies the intuitive understanding that too much homophony renders a language confusing, the determination of the minimum number of syllable positions in a given language is measurable whereas the measurement of the importance of given phonemic distinctions is at best fraught with difficulty.

4) The notion of 'drift' (Sapir 1921), which is the apparently strong tendency of a given language to change in one direction rather than another, may be explained as the result of a general 'conspiracy' between such elements as sequence constraints, morphological characteristics, and the identifiability (or nonidentifiability) of a phonological and syntactic word in a given language.

5) Various proposals over the past thirty years to interpret tones segmentally should be applied in the context of given typologies and stages of language development. Tones in the strict monosyllabic type (e.g., Cantonese) where virtually all syllables have distinctive, seldom varying tones, the traditional Chinese treatment of tones as a separate category of constituent is reasonable. But for tone sandhi types (e.g., Shanghai), the analysis of tones as a segmental-level constituent may be preferable.
Spanish Possessive Constructions

There exists in Spanish a special construction which makes use of clitic pronouns to express 'possession' or 'part-of' relationship. The following example, without a clitic pronoun, is ungrammatical:

1. *Lavo mis manos 'I wash my hands'
   I-wash my hands

The grammatical version being (2), which contrasts with (3) by bearing the definite article in the Direct Object noun phrase:

2. Me lavo las manos 'I wash my hands'
   I-wash me the hands

3. *Me lavo mis manos

The construction in question is commonly described in grammar books as an 'extended' use of the definite article to express possession. It will be argued that this view is basically misleading and an analysis is proposed instead wherein this type of construction is not exceptional but rather results from application of a general rule of clitic formation to double-object structures. Thus, it is claimed that the form of this construction results from the same operation that places a clitic pronoun before the main V in sentences with direct and indirect objects. Compare (4) and (5) below:

4. *Le die un beso a la muchacha 'He gave a kiss to the girl'
5. Le toco la cara a la muchacha 'He touched the girl's face'

The difference between (4) and (5) - and (7) - is a matter of Deep Structure: in the former the VP has two independent object NPs, as in (6), while in the latter the VP has an 'NP-Prep-NP' Direct Object, as in (7):

6. \[ V \quad NP \quad NP \]
7. \[ V \quad NP \quad NP \]

The structure in (7) provides the appropriate configuration to be interpreted in terms of 'possession' or 'part-of' relationship between the two NPs following the main V, which makes the use of the definite determiner before the first NP not exceptional, but quite normal.

In the Use of Personal Pronouns in Japanese

It is well-known that certain aspects of syntax are determined by the inter-personal relationships among the participants of the communication. For example, consider the following English example:

(1) Have you seen:
   a. my wife
   b. Shirley's husband
   c. your mom
   d. Auntie Shirley

Here, the relationships between the speaker, Shirley's husband, and Peter and also their relationships to the 3rd person, Shirley, are precisely reflected in the syntactic form used to refer to Shirley. And quite importantly, the choice is far from arbitrary. Any adequate theory of language must account for this interesting phenomenon. In this paper I shall discuss the principles governing the use of personal pronouns in Japanese. I owe a lot to the insightful observations made by Suzuki Takao (1977) in his Language and Culture, although my position is not quite the same as his. At the same time, this paper will be a direct critique of Kuno's remarks on the personal pronouns in Japanese. In his The Structure of the Japanese Language (p.17-18), Kuno maintains the following:

Japanese lacks authentic third person pronouns. In colloquial speech, in which there are many levels of first person and second person pronouns used, no third person pronouns are used. Where English would use he, she if they, Japanese would either (i) have no overt forms, (ii) have attribute nouns such as titles, or (iii) have full-fledged noun phrases. Examples of type (i) have been given in (34). Examples of type (ii) and (iii) follow:

35. a. Tanaka-sensei ga irassayat-tara, sensei ni tanomoo.
   teacher come-have when teacher to ask
   'When Teacher Tanaka has come, I will ask the teacher.'

b. Tanaka-sensei ga irassayat-tara, Tanaka-sensei ni tanomoo.
   'When Teacher Tanaka has come, I will ask Teacher Tanaka.'

c. Tanaka ga kita, aitu ni tanomoo.
   that-guy
   'When Tanaka has come, I will ask that guy.'

In the speech and writing of educated Japanese, on the other hand, what can be called third person pronouns do appear. They are karē 'he', kanoryo 'she', karē-ra 'they', and kanoryo-ra 'they (female)'... Since these forms display peculiarities that are very similar to those of English personal pronouns, they could justifiably be called pronouns.

First, I shall demonstrate that if Kuno's (1)-(3) are proper tests for non-authenticity of pronounhood in Japanese, then it will follow that there is no such thing as personal pronouns in Japanese. For (1)-(3) are more or less equally applicable to both 1st and 2nd person pronouns like bokk 'I (male speaker)', wakashū '(neutral)', anata 'you', etc. Second, if karē 'he' and kanoryo 'she' are indeed the forms which appear 'in the speech and writing of educated Japanese', then (36a) ought to be a good 2, which is not.

   he she

I shall demonstrate that just like 1st and 2nd person pronouns, the use of karē 'he' and kanoryo 'she' is strictly governed by the principles which reflect the inter-personal relationships between the speaker, the address and the referent. I shall argue that they could be justifiably be called pronouns precisely for this reason and not because they 'display peculiarities that are very similar to those of English personal pronouns.'
In stylistically unmarked sentences of OE, the surface order of main clauses is typically VSO while that of subordinate clauses is typically SVO. Several recent studies have attempted to select and motivate an underlying word order from one of the surface orders or from an abstract VSO order. In spite of these efforts, the issue, asPostal (1974) states, remains unsettled. In this chapter, evidence is offered which supports an underlying VSO order for OE. As argued extensively by McGeary, Postal 1970, Postal 1974, SVO order can be derived from VSO or SOV order, and thus the choice reduces to SVO or VSO. In arguing for the latter order, the consequences of adopting a verb-final rule (VF1) to generate derived VSO structures in subordinate clauses are compared with those of adopting a verb-fronting rule (VF0) to generate derived SVO structures in main clauses. The choice between underlying orders for OE is thus made in terms of the choice between two putative verb movement transformations.

On the basis of data typically considered, i.e. sentences with one level of embedding and sentences with modal auxiliaries, both hypotheses (VSO order with VF1 and SOV order with VF0) appear to be equally adequate solutions. There are, however, certain more complex sentences which violate the generalization that embedded clauses have surface SOV order:

(1) *W<u>a</u>n ȝeal he wile þehte ic þeow cyninge þehte land selle.*

'I know that he wants that I the king the land give.'

Here the verb is not clause-final if the clause itself contains an s node. If this S is truncated, however, e.g. by Equi-NP Deletion, then the verb of the first embedded S does appear in clause-final position:

(2) *W<u>a</u>n ȝeal he wile þeow cyninge þehte land sellan wile.*

These sentences furnish clear motivation for the selection of VF1 and hence the VSO order. Specifically, while (1) contains a full 'clause', (2) contains only a 'quasi-clause', defined in Postal 1974 as a complement clause where the subject NP has been removed by Equi-NP Deletion or raising. 'Clause' and 'quasi-clause' appear necessary to correctly constrain a variety of syntactic phenomena, e.g. Wh-Q Movement and Complex NP raising, and thus have independent motivation. Discriminating between (1) and (2) on this basis requires little modification of VF1: a 'clause' boundary, but not a weaker 'quasi-clause' boundary, blocks its operation. (If all rightward movement rules are bounded and clause-internal then no modification is required.) On the other hand, VF1 must apply over a 'clause' boundary and must be blocked by a 'quasi-clause' boundary. But this is inconsistent with other relevant syntactic phenomena, all of which are sensitive only to a full 'clause' boundary. We thus conclude that VF1 is consistent with known restrictions on other syntactic processes while VF0 is not. On this basis we conclude that the correct underlying word order of OE is VSO and not SOV.
Observations on the Semantics of Time Modifiers

A brief analysis of two time modifiers in English, yet and still, is presented. Sentences of the form (1) and (2) are discussed. The crux interpretations of such sentences are different. The former interpretations involve a relationship which has traditionally been called 'semantic presupposition', while the latter involves a relationship which has traditionally been called 'semantic presupposition'.

The characteristic differences of the two games are discussed and it is noted that in the former a value results after a finite number of moves, while in the latter there are infinitely many possible moves. These games will be very much like intensional functions (from indices to extensions) but have certain advantages, especially with regard to the identification of individuals across worlds. The ultimate difference in the interpretation of sentences like (1) and (2) is laid at the door of epistemological considerations as to what we can actually know (and hence presuppose to exist) and that which we can only possibly know (but which we can expect to know at some future time). Both of these notions express an attitude towards that knowledge; alternatively, they can be thought of as admissibility conditions to those worlds in which that knowledge is actualized.

Most practitioners in such fields as language teaching, remedial reading, speech pathology and so on are not and will never be linguists. Such non-linguists need different learning experiences in linguistics than do future linguists. Linguistic theory, linguistic fact, and linguistic practice do have a lot to offer such professionals, but the ideas and approaches of the field must be made accessible to them as much on their terms as on ours.

In introducing applied linguistics to such students, several basic truths must be faced: there is never enough time in their courses of study to do full justice to the field, they are frequently fearful of linguistics and particularly of its formalism, and they are necessarily practical people with problems they have to solve tomorrow even if the full truth is not yet available about the nature of deep structure or the passive transformation. The goals of linguistics instruction for such professionals, therefore, must be primarily that of exciting them about the potential insights linguistics can provide them for their work as well as to enable them to learn enough linguistics so that they can begin to make their own way in the linguistic and applied linguistic literatures.

The tentative conclusions of the paper are based on five years of experience teaching such students. They include the necessity of learning theory in the context of practice, using linguistic insights as a way of criticizing current practice in their field, and treating linguistic theories in their broadest contexts including the social concerns of Labov and Hymes and the psychological insights of Miller and Brown as well as the theories and disputes surrounding the work of Noam Chomsky. Since most of their fields have been heavily dominated by behavioral-empiricist theories of learning, the paper will also discuss how such a course can help to re-orient such practitioners to a new view of both the creative processes of normal language use and of the active role of the learner in his own linguistic and cognitive development.
Was Grassmann's Law Reordered in Greek?

In his dissertation and recently in Sebeok's Current Trends volume (11, 115–34 [1973]), Paul Kiparsky has argued that Grassmann's Law (GL) was reordered in Greek. Without disputing reordering as a type of language change, I will argue that GL was not reordered, for the following reasons:

(1) Five of Kiparsky's six examples for the original ordering are either ambiguous or admit of better etymologies or other explanations, leaving one word (defa 'elime') that is potentially an unambiguous case for Kiparsky's alleged reordering.

(2) It is doubtful that on the basis of an ostensible alternation *drēpho (ultimately drēpho, 'I nourish')—from, threphos speakers of Greek would construct underlying representations as highly abstract as /drehph-s-s/ (with voiced aspirates that appear nowhere on the surface after aspirate devoicing) enabling GL to apply in the 'unmarked' order with respect to aspirate devoicing. Kiparsky's own alternation condition for recoverability is not met.

(3) In contrast with the one or two words that Kiparsky's reordering can potentially explain, there are no less than fifteen (with better etymologies than Kiparsky's few) which he cannot explain because they enter into no alternations, e.g., paikos 'thick', ἤκτος 'arm', kephalē 'head', tēphlos 'blind', pantherēs 'father-in-law', pithos 'wine jar', tēkhōs 'wall', tēphros 'ashes', khāsios 'good' (Hexych.), pthōs 'base, foundation', and several more that I will defend.

(4) Kiparsky wants to relate GL in Greek and Sanskrit because of its 'unnaturalness.' But I will show that GL had to follow a postnasal deaspiration process in Greek, cf. *dīngnōs → *dīngnōs → dīngnōs 'touch.' Kiparsky falsely predicts that GL should apply first, giving *dīngnōs similarly, he falsely predicts *bhrūnd-ΔK → *bhrūnāk- → bhrūnākas, and has no way to get the correct outputs pūndākas 'bottom', ἤδη 'touch.' Since postnasal deaspiration was a Greek innovation and GL must follow it, this renders the independence of GL in Greek and Sanskrit highly probable. Moreover, it is not clear that GL is 'unnatural' (cf. Morris Halle, BR 49, 928 [1973]). Parallels from Nyamwezi ('Dahl's Law'), Hebrew, and Marathi are adduced, and it is suggested that it is not an accident that the only two IE dialects that retained the 'voiced aspirates' as aspirates (Greek and Sanskrit) put constraints on their occurrence, and, crucially, not always in the same way.

(5) Kiparsky makes no attempt to deal with the historically attested facts about GL in Greek, such as deaspirate forms like λακ., Thess., lorr. thēthid., ἤκτος, ἤκτος, and dialect alternants tekhōs/thētnōs 'law,' thēthōs/thēthōs 'faté, luck' which presuppose fairly late deaspirate forms. Contrary to the assumption of Schwyzer, Lejeune, and others, deaspirate forms in the earliest inscriptions are not 'sporadic' or 'late assimilations.' An examination of the inscriptions reveals that GL applied before 500 in West Greek, around the 6th cent. In Attic, between 550 and 425 in Boeotian, and Cumaean Ionic has no instance of GL in the early inscriptions.

The inescapable conclusion is that GL was not reordered in Greek. It was added to the grammar within the historical period.
Properties, Quantification, and There-Insertion

The following two generalizations about English existential sentences are encountered frequently in the transformational literature.

A. "Definite" NP are excluded from existential sentences, as in (2).
(1) There were people shouting.
(2) *There were the people shouting.

B. The otherwise rather general rule of there-insertion, which is hypothesized to derive existential sentences by the movement of the subject NP rightward over an occurrence of be, is blocked in predicational sentences. Thus, (4) cannot be derived from (3) by the process which derives (1) from (5).
(3) Many people are tall.
(4) *There are many people tall.
(5) People were shouting.

The restriction against there-insertion in predicational sentences is itself not fully general, however; while (4) is deviant, (6) is acceptable, although it differs from (4) only in the choice of a different adjectival predicate.
(6) There were many people sick.

The present paper attempts to show that the nature of restriction A has been misunderstood, and second, that when restriction A is more accurately characterized, it may be combined with certain independent observations about the behavior of property-denoting predicates like tall to construct a semantic explanation of restriction B. The account is in sharp contrast to previous treatments, which have either ignored the problem of restriction B or attempted unsuccessfully to explain it by syntactic means. First, examples are given which show that "definite", to the extent that it is a coherently defined notion at all, is insufficiently general to characterize the range of NP excluded in sentences like (2), and that restriction A is really a restriction on quantification. Next, it is shown that adjectival predicates like sick, which occur in existentials, are semantically distinguishable from those like tall, which do not, in that the latter denote properties while the former denote states. It is then shown that property predicates impose certain restrictions on the quantificational structure of their subject NP, and that these restrictions are logically incompatible with those imposed on the NP of existential sentences by restriction A. This non-intersection of requirements on the NP predicts that no property-denoting predicates should occur in existential sentences, which is exactly restriction B.

Since "style" may be seen as an author's characteristic pattern of linguistic choices (Olmann 1958, 1962; Gleason 1965), it is essential to know what options are presented by the resources of the language (Halliday 1964; Gleason 1965) and by the requirements of the text—the field of discourse (Spencer and Gregory 1964). Concerning the resources of the language, though it has long been commonplace for "literary" stylistics to label whole languages either hypotactic or paratactic, some very detailed syntactic studies both support (Nichols 1964a) and attack (Andrew 1940) the contention that Old English is paratactic (Chambers 1932; Gordon 1966; Bennett 1971). But little is said about field of discourse.

Two treatments by Alfric of the same biblical narratives illustrate the syntactic influence exerted by the requirements of the subject matter: sections of the Hystatæch are literal translations of the Latin source (Nichols 1964b) while the parallel passages in the Catholig Homilies range from translation to paraphrase; yet the percentage of hypotaxis and parataxis in all three versions of the narratives—both Old English texts and the Latin—are almost identical; in contrast, the expository prefaces to the Old English works are similar to each other but different from the narratives in this respect. Clearly, hypotaxis and parataxis are as much functions of text style as of language style.
Is Naturalness a Natural Criterion in Synchronic Phonology?

In the literature on natural phonological rules, the rules that reflect phonetic processes or 'sound changes' in an undistorted form are considered natural and the rules that reflect the original phonetic processes in a distorted form unnatural. Thus, (1) would be considered natural and (2) unnatural:

1. \[ k \rightarrow \varepsilon / -[\text{back}] \]
2. \[ \varepsilon \rightarrow k / -[C] \]

(Rule (2) is found in Sanskrit. It is known to have originated as (1) and to have assumed the distorted form (2) due to later developments.)

The distinction is, undoubtedly, of interest to the historical phonologist, who is interested in finding out how phonological developments come about. But, is it a legitimate distinction in synchronic phonology? Assuming that the goal of the synchronic phonologist is to characterize the speaker's knowledge of the phonology of his language, the distinction between natural and unnatural rules can be maintained in synchronic phonology only if it is part of the speaker's knowledge of his language. The distinction between phonetically conditioned rules and such 'unnatural' rules as morphologized rules must be obvious to the speaker. But, can be discriminate between natural and unnatural phonetically conditioned rules? It was reported by Ohala (1972) that in his experimental studies subjects did not discriminate between (1) and (3) in terms of learning difficulty:

3. \[ k \rightarrow \varepsilon / -[\text{back}] \]

This does not show that they do not have a knowledge of such a distinction. But if they did discriminate between (1) and (3) that would have provided some positive evidence. And, to my knowledge, no such positive evidence is available.

Linguists might have an intuitive feeling that (1) is natural and (2) as well as (3) are unnatural. But, what is the basis of their intuition? They acquire the knowledge as to what sorts of things are common, uncommon, or unknown in language structure or in historical developments in the course of their linguistic training.

One might question that if the speaker cannot discriminate between (1) and, say, (3) then why does he add rules like (1) but not rules like (3)? This question presupposes that the speaker's knowledge is involved in rule addition. There are historical developments such as analogical changes in which the speaker's knowledge is, in fact, involved. However, there is strong evidence that rule addition is the result of phonetic factors, articulatory and acoustic. The great majority of sound changes, assimilatory and dissimilatory, make sense only in terms of the way our articulatory organs operate. Are such phonetic processes part of a speaker's knowledge? There is no reason to believe that the speaker must 'know' them in any sense any more than he must know his internal digestive processes in order to digest his food.

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Reflexivization Across S Boundaries in Italian: Semantic Conditions on a Syntactic Process

Reflexivization in Italian, as in English, is obligatory and observes the clausemate condition. However, in many varieties of Italian one finds reflexive pronouns whose antecedent is not a clausemate and which freely alternate with nonreflexive pronouns, as in (1):

(1) La donna, lascia che io giaccia presso di se/lei. 'The woman allows that I lie near herself/herself.'

Let us call the rule responsible for these optional reflexive pronouns REF.

In Latin a rule like REF existed, allowing a reflexive pronoun to appear when its antecedent was in a higher clause provided that "the subordinate clause expresses the thought of the subject of the main clause" (Hale and Bock (1903)). Italian has considerably narrowed the environment in which REF may apply. Thus we find that:

(a) only objects of prepositions (not including the dative marker) may be reflexivized,
(b) the antecedent of the NP to be reflexivized must be the subject of its clause;
(c) the verb of the clause the reflexive pronoun appears in must be in the subjunctive mood,
(d) the predicate of the antecedent subject must express the emotional attitude of this subject to the statement or event of the lower clause,
(e) REF is blocked if an NP which could possibly be understood as the antecedent intervenes between the pronoun and its actual antecedent.

At first it appears that (a), (b), and (c) are purely structural conditions, while (d) and (e) are semantic ones. (Note that (e) is similar to Grinder's (1970) intervention constraint for SuperEqul.) However, all these conditions turn out to be semantic ones upon closer inspection. (a) and (b) both concern the role a given NP plays in the S and are consistent with principles established in the recent developments in Relational Grammar. (c) concerns mood, an element that is semantically determined (as Saltarelli and Scaglione, independently, have proposed).

REF is an important rule for present linguists to consider since the semantic factors affecting this syntactic process are further evidence of the interlocking nature of the semantic and syntactic components of the grammar.
The Social Origin of Pidginization

From the sociolinguistic point of view, the origins of pidginization are not presently understood, although it has often been suggested that an attitude of racial or cultural superiority on the part of the group of higher social status leads to a sort of baby-talk based destructuring of the superstrate language by its own speakers. In this connection, we investigate the social attitudes toward pidginization that were current at the time of the origin of the Portuguese-based pidgin that developed in Europe and West Africa as a result of the first direct contacts between the two areas (15th - 16th centuries). This pidgin is of particular importance because of the central role it played in the genesis of nearly all of the later European-based pidgins through relexification.

An investigation of primary historical and literary sources indicates that the relative social status of the participants, and their attitudes toward one another, were irrelevant to the use of pidginized speech. Cases are documented in which this type of speech was used by inferiors to superiors, by superiors to inferiors, and among equals, cross-classifying with use by Europeans to non-Europeans, by non-Europeans to Europeans, and among Europeans. Examination of the differential behavior of a character in an important 16th century play in several distinct contexts of difficulty of communication shows that the motivating force for the use of pidginization was an attempt to facilitate understanding, independently of social standing or attitudes. Thus, it is concluded that, at least in the case studied, pidginization does not depend in any way upon assumption of superiority by the higher class, even when the social situation is clearly defined.

The Semantics of Parenthetical Verbs

This paper deals with the semantics of a set of English verbs expressing propositional attitudes, among them believe, assume, suppose, guess, and suspect. When used non-assertively, to 'orient' the hearer towards an assertion, these verbs may suffer some attenuation of semantic content; the speaker of (1), for example, does not necessarily represent that the proposition expressed by the complement is true, but merely that he thinks it likely:

1. The night is chilly and dark, I believe.

Insofar as this parenthetical reading is accessible only for certain persons, times and aspects, and only when certain speech-act conditions have been fulfilled, it seems reasonable to argue that the parenthetical reading is derived from the literal reading by a Greek implicative, but in order to do this, we must be able to show some direct relation between literal and parenthetical.

2. Mary said that I believe (suspect, imagine, assume) that S, when we have good direct evidence for S; we believe that S, in the absence of evidence; and assume that S, when we wish to acknowledge the possibility that things might be otherwise.

3. You’re tired, I imagine (suspect, believe) arising from the impossibility of having direct evidence of the number of someone else’s internal state. Similar evidence is presented for a number for some real internal state. Similar evidence is presented for a number of such verbs; it is suggested that the choice of one or another parenthetical of such verbs is based on a number of discourse factors, such as the speaker's evidence for an assertion, his estimation of the hearer's knowledge of the truth of the assertion, and whether the evidence for the assertion is equally accessible to the hearer. It is further argued, after Urson, that there exists a systematic relation between the use of parenthetical verbs and sentence adverbial forms such as evidently and apparently. Finally, it is suggested that examination of the semantics of the parenthetical uses of these verbs may provide a basis for a description of the semantics of their literal meanings.
On the Semantic Irrelevance of Grammatical Relations

In The Philosophy of Language (J.J. Katz, 1966), Katz presents formal definitions of the semantic notions of ‘analyticity’, ‘contradiction’ and ‘entailment’ which make reference to the grammatical relations Subject and Predicate. He claims (p. 191) that the grammatical relations of his definitions refer to deep structure rather than surface structure grammatical relations. This claim is significant in that the definitions which Katz gives to characterize these semantic notions are correct, then they could be adduced as evidence to support a model of linguistic description which contains at least two distinct levels of grammatical relations, a deep and a surface level, such as that model presented in Aspects of the Theory of Syntax (M. Chomsky 1965).

This paper will demonstrate that this position, held by Katz, Chomsky and many other contemporary linguists is incorrect, and that it is in fact impossible to characterize these semantic notions by making reference to any single level of grammatical relations, either deep or surface. The argument proceeds as follows. Katz (p. 194) defines a sentence as analytic if the semantic reading of the Subject includes the semantic reading of the Predicate. While this is true at the level of deep structure but not surface structure for some analytic sentences, like (1), Lefkovits (1965) has shown that in other analytic sentences, like (2), this definition holds at the surface structure level only and not at the level of deep structure.

(1) Horses are shod by farriers. (from underlying ‘farriers shoe horses’)
   «Horses are shod by people who shoe horses».

(2) Buildings are built. (from underlying ‘PRO builds buildings’)
   «Things which are built are built».

Furthermore, this paper will show that there are some sentences which are analytic but for which Katz’s definitions do not hold at any level of syntactic structure: sentences like (3).

(3) People make artifacts.
   «People make things which people make».

In an Aspects-type model, there is no syntactic level at which ARTIFACT is the Subject of sentence (3); therefore, Katz’s definition of analyticity cannot be correct.

This paper will present a definition of analyticity which does not make reference to grammatical relations at all — that given in (4).

(4) A proposition P is analytic on a reading R of the reading R_A of any argument A in P includes the reading of R_P minus the reading of R_A.

It will be shown that this definition of analyticity, and the definitions of contradiction and entailment which are derivable from it, are sufficient to characterize these basic semantic notions in complex as well as simple sentences. It will therefore be concluded that the characterization of these semantic properties as well as the other basic properties of synonymy, ambiguity and anomaly need not and cannot provide evidence for a level of grammatical relations different from the level of surface structure.
On Irony

This paper deals with irony, as a figure of speech, in the framework of speech acts theory. It is intended to be a contribution to the study of direct speech acts and to provide a new insight into the traditional discussion of rhetorical figures.

The paper shows that irony presents two aspects:
1) The speaker ostensibly violates the speaker's sincerity condition (speech act theory).
2) There is some disappointment expressed by the speaker or provoked by him in the hearer.

The first factor is common to specific kinds of speech acts such as wit to which irony is related. It remains the same in every kind of ironic sentence. The second factor is specific to irony and appears very differently in ironic statements, on the one hand and in ironic questions, requests and pieces of advice, on the other. In statements the speaker expresses his own disappointment: he states what he would not like to be the case, and this is shown by some subjective device of the sentence where an apparently positive value has to be interpreted as a pejorative one. In questions, requests and pieces of advice, the speaker deceives the hearer (or an impersonal hearer in the case of a piece of advice), who does not get what he wants (request) or is tricked by a question or by advice which is not genuine.

The difficulty to give a coherent description of irony comes from the fact that an ironic sentence can be a stereo-typed phrase where not wit nor real disappointment appear anymore, as with expressions like, "It was a brilliant idea!" It can also be the case that the disappointment expressed or provoked is such that the wit dimension disappears. Or the sentence can be also mainly witty so that the disappointment dimension fades away. But in those three cases the same mechanism will appear and the two factors basic to irony can be perceived, even if the emphasis is put on wit or on the expression or the provocation of disappointment.

Special attention is given to ironic statements, with French and English examples, to contrast cases of a pejorative interpretation of a positive form and of a positive interpretation of a pejorative form. The latter can never be ironic. Affirmative sentences are also compared to negative sentences where no irony can appear either.
Complex Verbal Auxiliaries in English

The purpose of this paper is to demonstrate that sentences such as (1), which would be assumed—in accordance with the literature of the field, to date—to follow the analysis of (2) (cf. Rosenbaum (1967), Bresnan (1970)), are in reality related in structure to (3):

(1)(a) John has to teach Mary
(b) John is to teach Mary
(2)(a) John preferred to teach Mary
(b) John is teaching Mary.

That is, we are suggesting that the underscored elements in (1) are not main verbs of sentences containing verbal complements but, rather, are auxiliary verbs (as adjoined by the particle to) and the sentences of (1) are not complex but simple sentences. In support of this assertion, observe that the sentences of (1) will not yield grammatical passives when subjected to the factorization of elements necessary to the passivization of (2); in effect, if (2) is factored as shown in (4a) and we accept that the unmarked S is immediately dominated by an NP after Rosenbaum (1967), then the structural condition for passivization is met by the structure underlying (2-4a), deriving the well-formed (4b):

(4)(a) John - preferred - to teach Mary
(b) To teach Mary was preferred by John.

On the other hand, when (1) is factored along the lines of (4a), we derive the deviant to teach Mary has been by John and to teach Mary was been by John.

Notice, however, that if we choose to factor (1) in like manner to (3), as illustrated in (5), the resultant passives (6) are well-formed:

(5)(a) John - has taught - Mary
(b) John - has to teach - Mary
(c) John - is to teach - Mary
(6)(a) Mary has been taught by John
(b) Mary has to be taught by John
(c) Mary is to be taught by John.

Other evidence has been amassed in support of this claim and similar arguments are developed and extended to similar forms (viz., use(d) to, ought to) as well as to “pseudo-progressives” (such as keep + ing) to cover a wide range of data.


The Semantic Components of Modality or Why it’s not only Possible but Necessary to do it.

The modality of a sentence is usually treated as a unitary phenomenon. It can be declarative, predictive, optative, imperative, permissive, promissive, ablative, potential, or necessitative, etc., but it cannot be a combination of these. Such an approach cannot account for the systematic similarities and differences among the following sentences:

A-1) He said that they had done it
2) He hoped that they had done it
B-1) He predicted that they would do it
2) He wanted them to do it
C-1) He watched them do it
2) He liked for them to do it
D-1) He commanded them/to do it
2) He permitted them/is able to do it

The sentences in A-1 through D-1 (or those in A-2 through D-2) differ consistently in meaning and in restrictions on their complement subject and predicate, their complement tense, aspect, and time reference, and their complementizer choice. These differences I call differences in Propositional Modality: TRUTH (A), FUTURE-TRUTH (B), OCCURRENCE (C), and CONTROLLABILITY (D) (cf. my 1974 doctoral thesis).

The sentences in 1 and 2 of A through D, on the other hand, show another set of differences in meaning and in restrictions on cooccurrence with necessity and possibility polarity items (cf. Horn 1972), with the phrase “not only x but y,” with complement negation, and with complementizer choice. These differences I call differences in Logical Modality: NECESSITY (1) and POSSIBILITY (2).

It is my claim that every sentence has both a Propositional and a Logical Modality. In order to support this claim, first I will show cases where the meaning and the restrictions on the Propositional Modality differ, but those of the Logical Modality do not:

E-1) He decided that he was wrong
2) He decided to apologize
These two sentences differ in Propositional Modality: E-1 is TRUTH and E-2 is CONTROLLABILITY. But they have the same Logical Modality: NECESSITY, and they can undergo conjunction reduction (He decided that he was wrong and to apologize).

Next I will show cases where the meaning and the restrictions on both the Propositional and the Logical Modalities differ:

F-1) He liked (it) that he was wrong
2) He liked to apologize
In F-1, the Propositional Modality is TRUTH, and the Logical Modality is NECESSITY. In F-2, the Propositional Modality is OCCURRENCE and the Logical Modality is POSSIBILITY. These two cannot undergo conjunction reduction (*He liked (it) that he was wrong and to apologize).

Finally, I conclude that both a Propositional and a Logical Modality must be associated with every sentence. I propose that they be represented by abstract semantic predicates which would be introduced into the deep structure in conjunction with every S node.
How to Escape the Scylla of Homonyms and the Charybdis of Idioms: Sacrifice a Linguistic Generalization

The morphological identity of two tokens is usually taken to indicate that they are the same grammatical formant or morpheme. In French, the fact that avoir has the same inflectional paradigm in all 1l y a expressions has led to the assumption that 1l y a is a formant in all its occurrences. The consequence has been the postulation of multiple homonyms and idiom, an unhappy result which can be avoided by a rigorous analysis of the meaning of 1l y a expressions. Sacrificing the morphological parallelism makes it possible to account for otherwise puzzling distributional and semantic facts on the basis of coherence and incoherence of meaning combinations.

Time intervals (un mois, longtemps) can be introduced by 1l y a to express either the time elapsed since the occurrence of an action or the duration of an action:
1. 1l y a deux mois que je vous ai vu.
2. Il y a deux mois que j'habite New York.

It could be hypothesized that 1l y a here has the same semantic value as in "Il y a deux choses dans la chambre" with que as a subordinating conjunction. But several facts appear inexplicable given this treatment.

A. Que can be omitted in 1 where the time elapses after the action, but cannot be omitted in 2 where the time is the duration of the action:
3. Il y a deux mois, je vous ai vu.

B. The morphological affirmative and negative forms of 1l y a (with the verb in a compound tense) communicate the same message:
1. Il y a deux mois que je vous ai vu.
5. Il y a deux mois que je ne vous ai pas vu.

But in 2 and 3 morphological negation produces logical negation.

C. The time interval can be questioned in 1 and 2 but not in 3:
6. Y a-t-il deux mois que je vous ai vu?
7. Y a-t-il deux mois que j'habite New York?
8. Y a-t-il deux mois, je vous ai vu?

The semantic analysis postulates two distinct morphological indivisible units:
1l y avoir... = "the initial point of the given time interval"
1l y avoir... que = "the elapsing of the given time interval"

1l y avoir... is thus a dating device comparable to English...ago. Its meaning—a point in time—is semantically opposite, and hence contradictory to ‘duration’, explaining the unsatisfactory nature of 4. The two interpretations of 1l y avoir... que in 1 and 2 are explained by the differing tense relations. Likewise, facts A–C follow from these meanings and their interaction with postulated meanings of the tenses and the particles ne and pas.

Conclusions:
I. Formal morphological units relevant to meaning are not intuitively obvious, and cannot be ascertained independently of a rigorous semantic analysis.
II. Semantic analysis in a functional framework may force an historical interpretation of some morphophonemic relationships.

On defining Natural Phonological Rules: Perceptual and Articulatory Features

This paper develops the concept of structural definitions for natural phonological rules. For this purpose, two independent sets of phonological features are proposed: one articulatory, the other perceptual.

Natural rules of assomilation, lenition, and sloppy timing (*e.g.*, nt → n or n or n as in German [amt]w [amt]v [amt]t [amt] "office") are defined with respect to articulatory features, since the according processes appear to involve articulatory simplification. A further class of articulatorily defined rules are mechanical linking rules, which express physiological interdependencies between different articulatorily gestures (*e.g.*, low dorsum → lower velum, as illustrated by spontaneous nasalization of low vowels). Since assimilation and lenition rules have been dealt with elsewhere, emphasis will be on sloppy timing rules and mechanical linking rules.

Perceptually motivated rules of maximum differentiation, on the other hand, are defined on the basis of perceptual features. These rules (which are illustrated by spontaneous rearrangements of vowel systems in French and German) increase the distance of two segments along one or more of the perceptual parameters.

The articulatory features offered are derived motor features. Unlike "primary" motor features they preserve "invariance" for identical articulatory gestures, without losing the explanatory strength of motor features.

Our scalar perceptual features refer to formant centers of F0 – F4, formant width, overall resonance, and presence of nasality clues. Formant transitions are handled by complex values for the according formant-center features.

Rules formulated in terms of the proposed features will be seen to reflect the substantial nature of phonological processes more closely than rules using other current features (*e.g.*, Chomsky & Halle’s (1968) or Ladefoged’s (1971)). As will be demonstrated, this close relation between rule and objective process leads in turn to simpler and more plausible structural definitions for natural rules.

REFERENCES


Finnish Vowel Harmony and the Alternation Condition

Kiparsky (1965, 1973) has argued convincingly that Finnish stem vowel harmony and suffix vowel harmony are different processes. He proposes essentially the following Vowel Harmony Rule (VHR) to account for suffix harmony:

\[
V_{[\text{back}]} \rightarrow [\text{back}] / [\text{back}] (V_o \quad (V_o \quad \text{round} \quad \text{low})_o + V_o V_o - \\
\]

and the following Backing Rule (BR) to account for the behavior of vowels in certain suffixes after monosyllabic stems with neutral vowels:

\[
[+\text{round}] \rightarrow [+\text{back}] / # V_o \quad (V_o \quad \text{round} \quad \text{low})_o + \\
\]

The purpose of this paper is twofold. First it is demonstrated that there are serious problems with Kiparsky’s analysis, the most serious being that he cannot account for his own data without building a vowel harmony rule into it. Second, an alternative analysis is proposed which accounts for all of Kiparsky’s data and avoids the problems of his analysis. In the proposed analysis the only vowels that occur in the underlying representations of suffixes are \( V \), \( \tilde{V} \), \( \tilde{V} \), \( \tilde{V} \), and vowel harmony is a backing process (rather than a fronting process as assumed by Kiparsky).

Vowel Harmony Rule Revised (VHR’)

\[
[+\text{low}] \rightarrow [+\text{back}] / [+\text{back}] (V_o \quad \text{round} \quad \text{low})_o + \\
\]

It is argued that it is unnecessary to indicate a morpheme boundary in VHR’ to restrict its application to suffix vowels since, by Kiparsky’s (1973) reformulation of the Alternation Condition, VHR’, which is a non-automatic neutralization rule, applies only to derived forms (in Kiparsky’s (1973) sense of ‘derived’), and thus applies only to suffix vowels.

The theoretical implications of the proposed analysis are discussed. In particular, it is shown that the analysis defended here is inconsistent with the prediction of markedness theory, requires formulation of VHR’ as an iterative rule, and requires that VHR’ be unordered with respect to at least one other rule.

1 I say “essentially” since the actual rule proposed in Kiparsky (1973) contains several minor technical or printing errors.

References

## The Provenience of the Opposition Second Person Formal: Second Personal Familiar

In several of the Mayan languages (Maya, Aguacatec, and some dialects of Quiche) as well as the majority of the languages spoken in Western Europe, there is (or was) a formal distinction between the second person familiar and second person formal. The purpose of the paper is to explain how the opposition formal:familiar came to exist in the Maya and Western European languages.

First, by means of historical documentation and dialectal considerations it can be established that the formal:familiar existed in Mayan long before the conquest. Hence the Mayan familiar:formal is not a simple calque on the Spanish familiar:formal.

Second, the social considerations that call for the familiar (as opposed to those that elicit the formal) are discussed. It is shown that the familiar is the marked category since its use is restricted, whereas the use of the formal is unmarked (general).

Third, it is shown that the original category “second person” is differentiated by the introduction of a new marker (recruited either from the second person plural, cf. French vous, Sipasepa Quiche i; or from the third person, cf. Spanish Ud., Uds., Mam t’ Ky). As predicted by Kuryłowicz’s fourth law of analogy, the new marker takes over the primary (unmarked) function—the familiar; and the old marker (cf. tu French, at Quiche) is restricted to the secondary (marked) function—the familiar.

### Old English

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<td>thou</td>
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### French

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### German

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### Old Spanish

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Pāṇinian Characteristics in Bloomfield's Treatment of Endocentric and Exocentric Compounds

The purpose of this paper is to compare Leonard Bloomfield's discussion of endocentric and exocentric constructions and his description of compounds with certain characteristics of Pāṇini's grammar of Sanskrit. The data utilized include the chapters on synchronic linguistics in Bloomfield's Language; his 1929 "On Some Rules of Pāṇini;" a manuscript of his translation of part of the Kāśikā, a Pāṇinian work; and various Pāṇinian commentaries.

The analysis is done in the following manner. First, Bloomfield's definitions and examples of endocentric and exocentric constructions are reviewed. Second, a general outline of the sets of statements in Pāṇini's grammar concerning verbal roots, affixes, nominal stems (Bloomfield's free forms), and compounds is presented. Next, this general outline of Pāṇini's grammar is correlated with Bloomfield's discussion of compounds. The outline is specifically used to analyze Bloomfield's determinative (Pāṇini's tatpurūṣa), descriptive (karmadhāraya), numerative (dvigu), copulative (dvandva), and exocentric (bahuvṛthi) compounds. The analysis discusses, for example, the endocentric compound door-knob and the exocentric compounds gadabour, turnkey, and red-head. Whereas Bloomfield does classify door-knob as endocentric on the basis of the head member knob and the compound door-knob being in the same form-class, i.e., noun; he does not so classify red-head (as applied to an individual having red hair) because head and red-head do not have the same referent. Thus, an essential criterion for Bloomfield's subclassification of a compound as either endocentric or exocentric is whether the head member and the resulting compound itself both have the same referent or valuation. If they do, the resulting compound is classed as endocentric; if not, as exocentric. This paper underscores the contribution of Pāṇini to Western linguistics.

Entailment, Presupposition and Negative Opacity

The semantic concepts of logical entailment and presupposition—as exemplified by the classes of Implicative and Factive verbs respectively—have been treated as two separate and distinct phenomena. This paper argues that the two verb classes are not completely distinct and that their differences can be accounted for through the interaction of two properties: 1) that of being transparent or opaque to negation, 2) that of creating or not creating a logical entailment.

The first property is illustrated by transparent verbs like think and opaque verbs like announce:

1a. John does not think that Dick passed the test.
   b. John did not announce that Dick passed the test.
   c. Dick did not pass the test.

Only (1a) ascribes (1c) to John. In contrast to non-entailing verbs like think and announce, Implicative verbs like manage and Factive verbs like know entail their predicate complement. The difference between the two is that manage is transparent and know is opaque to negation:

2a. Dick did not manage to pass the test.
   b. John does not know that Dick passed the test.

Only with (2a) does Dick not pass the test.

This analysis has the advantage of suggesting a unified basis for the treatment of entailment and presupposition. Furthermore, it is supported by the fact that it provides a framework for explaining why there are both negative, transparent, non-entailing verbs (deny) and negative Implicatives or negative, transparent, entailing verbs (fail), but no negative opaque verbs either non-entailing or entailing (i.e., there are no negative factives).
Marked and Unmarked Categories in the Acquisition of Phonology

Several studies of articulatory substitution have confirmed that children tend to substitute a sound representing a change in status from marked to unmarked with regard to some feature of the target sound. Substituting /s/ for /ʃ/ (e.g., reflects a move from [m continuant] to [u continuant]. If the tendency toward reduction of complexity expressed by these articulatory data is a function of restrictions on the peripheral articulatory mechanism, the findings are of superficial import for a model of emerging phonological competence.

On the other hand, if reduction in phonological complexity can be shown to be characteristic of central phonological processes, investigators are faced with a governing principle essential to a developmental model. In the present study, an attempt was made to ascertain if the marked or unmarked status of various distinctive features has an effect on perceptual confusion of consonants by children.

Eighty children, aged three through six, were shown objects and asked to judge spoken words as correct or incorrect productions of the name of each object. "Incorrect" stimuli (distortions of the object names) were first-order approximations having initial consonants that differed from the target with regard to a single distinctive feature. Consequently, each distortion can be classified as marked or unmarked in relation to the target to which it corresponds. Thus, /mɔr/ a distortion of nose, is classified as a marked distortion since /n/ is unmarked on the feature [coronal], while /m/ is marked on that feature. No other feature distinguishes /m/ from /n/. The reciprocal distortion /nɔu/ for the target mouse is an unmarked distortion. To compare false positive response frequency across the two types of distortions as well as test the significance of the differences between mean error rates exhibited by the four age groups (3, 4, 5, and 6-year olds), a two-way mixed model ANOVA was performed on the error data.

The analysis showed, in addition to significant age-group differences, that there were significantly less false positive responses to marked distortions. Thus marked distortions are not heard as acceptable variants of original marked form, while unmarked distortions are heard as acceptable variants of original marked form. This finding conforms to what would be predicted on the basis of articulatory substitution data from children (Williams, Cairns, Cairns, and Blosser, 1971) as well as aphasics (Blumstein, 1973). Accordingly, marked and unmarked categories must be viewed as essential elements in the structure of the rules written to describe the emerging phonological system.

The Phoneme in Natural Generative Phonology (Revisited)

The theory of natural generative phonology, as has been put forth by Theo Vennemann and elaborated upon by Joan Hooper, differs in many respects from standard theory generative phonology. Two important differences may be seen in the following two claims which this theory makes: 1) lexical representations are in terms of systematic phonetics (as opposed to the systematic phonetics of the standard theory), 2) phonological rules must be phonetically, and solely phonetically, motivated, and act as redundancy rules in the lexicon, specifying redundant feature values. An unexpected, but welcome, result of these two claims is the ability of natural generative phonology to directly, and non ad hoc, represent the minimal units of surface contrast (i.e. the phonemes) of a language at a single point in the model. It can be shown that the lexical matrices of natural generative phonology are structurally and functionally equivalent to the phonemic-archiphonemic constructs proposed by the Prague School.

It will be argued that the criticisms leveled against the inclusion of a level of representation which depicts the minimal units of surface contrast do not hold for the archiphonemic-type representations of natural generative phonology. Problems such as the voicing of obstruents in Russian mentioned by Morris Halle, and the phonemicization of the voiced flap in American English 'writer/irider' pointed out by Noam Chomsky are not in fact problems for archiphonemics.

Further, it will be argued that the inclusion of "behavioral" units, such as the phoneme-archiphoneme, in no way weakens the natural generative theory, but in fact strengthens it since these "behavioral" units are as much a part of speaker competence (as well as performance) as are phones.
The Verb Remind

Since Postal's initial article on the English verb remind, three distinct views have been suggested for the verb's range of meanings: (1) Postal claimed that remind was a case of MOMEMORPHY, with two unrelatable senses 'cause to remember' and 'strike as similar'; (2) Mendelsohn claims (in his review of Chomsky's Syntactic Structure) that it is a case of POLYSEMUS, where Postal's "strike"-sense should be reassigned (in light of Bolinger's criticism) as also causative; and (3) several of Postal's critics claim that the verb is MONOMONEMIC, not ambiguous but merely neutral to causative and non-causative senses. This last view involves a number of demonstrations that Postal's various paraphrases and semantic representations of remind are incorrect, even the apparently obvious gloss of 'cause to remember'.

This difference of opinion regarding remind is indicative of quite different views of semantics in present linguistic analysis. I will compare the views and propose arguments for the MONOMONEMIC view. I will show that arguments from "selectional restrictions" — Postal's main source of support — are often equivocal, since they rest on the dubious assumption of "compositional semantics" that the sense of a sentence can be exhaustively distributed among its lexical items, and that lexical items carry features indicating contextual possibilities (but note, She wore the dress to the dance (Fillmore), where wore is not a movement verb, as required). I will also show that many relationships of "synonymy" are made too hastily, without exhaustive treatment of many particular cases; elements which appear synonymous on a small range of data diverge when a wider range is considered. I will propose instead the relationship of "specificity," and explain how a lexical item such as John can acquire the sense John's appearance, or how remind can acquire a causative sense, both from contextual limitation, without any limitation in the sense of the lexical item. Assuming that remind is monomonic, and developing the consequences of that claim, I show that present semantic procedures typically mis-read the sense of sentences and fail to fully account for the semantic contribution of context.

On the Question of the Intonation of Questions

This paper will give a partial survey of the intonational patterns associated with questions in English. We have three purposes: 1/ to counter the naive assumption of many linguists that the problem of question intonation can be dealt with by observing that yes/no questions are at the end, while Wh-questions are "like declaratives"; 2/ to provide a framework for a discussion of the intonational differences between "normal" questions and what have been called (e.g. by Bearle) Indirect Speech Acts; 3/ to further develop our theory of how information concerning the role of an utterance in a discourse, its speaker's attitudes and assumptions, etc., can be communicated by means of intonation.

In addition to sitting and thinking, our methods include the instrumental examination of representative cases (both acted and from candid speech), and also perceptual tests intended to tap the intuitions of disinterested subjects.

Some of our findings are as follows: 1/ the intonation typical of normal or neutral Wh-questions is not identical with "declarative" intonation; 2/ there is a second intonation for Wh-questions which is understood as being more "polite" or "distant," and which is different from the normal intonation of Wh-questions, declaratives, yes/no questions, echo questions, etc.; 3/ Wh-questions which are echo questions share the pattern typical of echoes in general, under the assumption that the Wh-phrase is treated as a focused element; 4/ there is a profound distinction between yes/no questions with subject-aux inversion, and intonationally identical cases with declarative form, which have often been taken to be free variants; 5/ in cases of questions used as suggestions, requests, etc., there is a marked tendency for what precedes the VP to become a sort of intonational prefix, with increased tempo, phonological reduction, low pitch and the like. Despite this, this phenomenon, and certain other factors which tend to influence the manner of production of indirect speech act questions, we haven't found any evidence of specific intonations which force an indirect speech act interpretation for a particular sentence of question form; however, we have found several cases in which such an interpretation is precluded, given a certain intonation, and the utterance must be at least a literal question, whatever else may be achieved with it; 6/ the manner of indicating focus or contrast in yes/no questions and in echo questions is different from the means employed in declaratives, Wh-questions, etc.; 7/ besides the cases sketched above, the system has enough additional potential that a given question can be said in as many as 12 or 15 different ways (excluding differences arising from varying placement of contrast or focus) to which naive listeners can reliably assign fairly precise pragmatic values. To show this in a particular case requires some histrionic skill, and is usually good for a laugh, but the demonstration is of interest only insofar as it shows that people have a set of linguistic abilities which linguistic science doesn't. We give a partial solution to this problem by analyzing, for the case of questions, the structure of the intonational system of English in the parallel realms of sound and sense.
Causative Idiosyncrasy: Argument for a Lexicalist Analysis

Hindi causative paradigms can have as many as four members, e.g. /dikh/ 'get seen', /deekh/ 'see', /dikhaa/ 'show' and /dikhaa/ 'to have someone show'. In the transformational framework these forms are derived by successive applications of the Causative T. I present data on the semantic and syntactic irregularities of causativisation in Hindi. This data weakens the transformational analysis proposed for Hindi and explicitly or implicitly assumed for most languages. It further argues for a lexicalist model that uses Redundancy Rules to express the generalizations associated with the process.

Syntactic Irregularities: (1) Selectional restrictions on number and animacy alter when a verb is to be embedded under CAUSE. (2) Syntactic relations between the arguments of CAUSE and the noncausative verb do not always hold up as predicted by the T analysis. (3) A single noncausative may have two morphologically and semantically similar causatives. (4) The noncausative sentence from which a causative would derive may be nonexistant. (5) Finally, in the four step derivation there are frequent morphological gaps where a hypothetical form (i.e., one marked 'lexical insertion') cannot be posited because it would predict the wrong syntax for the corresponding causative.

Semantic Irregularities: (1) Causatives acquire idiosyncratic meaning features such as (+ Try to CAUSE) (+ Contactive Cause), (+ Durative) etc. (2) Causatives may be extremely restricted in meaning, referring to specific conventionalised activity, e.g. /parhha/ 'cause-study' means to teach. (3) The meaning of many causatives cannot be rendered literally, e.g. /bacca khilaanaa/ 'cause a child to play' means to look after a child. (4) Finally, there are many morphological causatives which do not signify the appropriate semantic causativisation. e.g. /maar/ 'cause-die' most commonly means to hit.
The Morphological Justification of Phonological Rules

In an attempt to restrain runaway abstraction and freewheeling practice in generative phonology language-independent criteria for "rule plausibility" have been proposed by Bach and Harnish (1970), Kisseberth (1969), Zwicky (1971), and King (1974). Kiparsky (1968) proposed the "alternation condition" to eliminate absolute neutralization in underlying representation. In this paper I propose a language-dependent condition of "paradigmatic relatedness" which coupled with the assumed "lexical relatedness" plus Kiparsky's Alternation Condition significantly impoverishes the capacity of the theory and provides a criterion for "rule plausibility" based on the paradigm/morphological system of the language in question.

The case treated is the diphthongization rule in Standard and Chicano Spanish (Harris, 1973, 1974). Evidence from paradigm leveling in Chicano dialects shows a gradual "fading" of phonological rules strictly governed by morphological, rather than lexical domains. For example, alternations of the type o-ue have been leveled to ue, but only in first conjugation verbs in certain dialects. In others the leveling is spreading to other conjugations, but not to nouns. Consequently the formulation of a rule of diphthongization in Spanish is in close relation with the paradigm structure of the particular dialect. In the case of Standard Spanish the scope of the rule is the entire paradigm, whereas in Chicano its scope excludes first conjugation verbs as no alternations are found in that subparadigm. A squish (Ross 1973, 1974) of paradigmaticity is proposed for Spanish with verbs at the top of the scale, nouns toward the middle and prepositions at the bottom. The degree of plausibility of a rule is determined by the place which its scope (paradigm) occupies on the morphological squish. The higher the paradigm (i.e., the more significant in the given language), the more plausible is the rule formulated on it.

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A Nontransformational Account of Gerundive Nominals in English

In all previous generative analyses, English gerundive nominals have been derived as transformations of underlying sentences. But there are reasons for preferring an analysis in which the basic structure assigned to gerundive nominals is more like that assigned to ordinary noun-phrase NPs. Specifically it is suggested that the basic structure of gerundive nominals should be assigned by means of the following three phrase structure rules, of which the first two are also used in the derivation of ordinary NPs: 1. NP → (DET) NOM; 2. DET → NP, etc.; 3. NOM → VP, etc. These rules assign to gerundive nominals with and without initial possessives the respective basic structures NP[DET[NP][NOM[VP]]] and NP[NOM[VP]].

Among the reasons for preferring this nontransformational analysis to the usual transformational analysis are the following:

1. The transformational analysis gives a better account of certain structural properties of the nominals: e.g.,
   a. While sentences must normally have subjects, gerundive nominals, in common with ordinary NPs, need not have initial possessives: e.g., #took the bus, but Fred recommended taking the bus.
   b. Gerundive nominals may include certain constituents that are typically constituents of ordinary NPs but not of sentences: e.g., demonstratives and postposed possessives, as in This burning the midnight oil of yours has got to stop. (cf. the book of yours, the burned the midnight oil of you).
   c. Gerundive nominals may not include certain constituents that are typical constituents of sentences but not of ordinary NPs: e.g., initial adverbs as in Yesterday we had beans again, but #I was surprised at yesterday our having beans again. (cf. #I was surprised at yesterday our meal.).

2. The nontransformational analysis also gives a better account of certain distributional properties of the nominals: e.g.,
   a. Like ordinary NPs, but unlike true nominalized sentences (such as that clauses), gerundive nominals may occur after auxiliary verbs as subjects of questions: e.g., Did Ellen's getting married surprise you? but #Did that Ellen got married surprise you?
   b. Like ordinary NPs, but unlike true nominalized sentences, gerundive nominals do not ordinarily occur in extraposed position: e.g., #It surprised me Ellen's getting married., #It surprised me Ellen's wedding, but it surprised me that Ellen got married.

If the nontransformational analysis is correct, how is the parallelism between gerundive nominals and sentences to be explained? Much of this parallelism is accounted for by the proposed postulation of VP as a constituent of both gerundive nominals and sentences. As for the parallelism between initial possessives of gerundive nominals and subjects of sentences, this can be handled by an extension of the "X convention" of Chomsky's "Remarks on Nominalization".

The nontransformational analysis of gerundive nominals does, however, have some dramatic implications. Notably, it entails a nontransformational derivation of various types of VP's for which a transformational derivation is ordinarily assumed: e.g., the passive VP of the gerundive nominal in Being nominated by the committee was a thrill. The analysis also raises the more fundamental issue of how, given the present state of syntactic theory, one is to choose between transformational and nontransformational analyses in general.
Rule Breaking in English Spelling

Within an orthographic system there are 'spelling rules' and 'graphotactic rules', analogous respectively to the phonological rules and the phonotactic rules within phonology. An example of a spelling rule is the deletion of final 'silent' e before a vowel initial suffix: arrange, arranging; blue, bluish. This rule is broken (i.e., the e is retained) in singing, singing; dye, dyeing; hoe, hoeing; slip, slily, etc. Examples of graphotactic rules are the prohibition word finally of certain geminate consonants (for example, f): hat, bat; or of 'silent' e after certain consonant clusters (for example, mn): barn, *barne. Some exceptions to these rules are nut, butt, borne.

The orthographic rules are broken for two reasons: (1) by following the rule a spelling is created identical to that of some other word—hence, breaking the rule eliminates homographs: singing, singing; dyeing, dyeing; put, put; but, butt; born, borne; (2) by following the rule an inappropriate pronunciation and morphemic division are suggested—hence, breaking the rule guarantees morphemic integrity and appropriate pronunciation: hoing (instead of hoing) suggests /höing/ and *sluy (instead of slily) suggests /slī/y.

Some rules are not broken—for example, words do not end in y but in v: savy, sivy, twelve, etc. Because this graphotactic rule is rarely violated homographs may result: live for both /līv/ and /lv/.

Different 'breakable' and 'unbreakable' spelling rules and graphotactic rules of English will be examined in light of the constraints governing homographs, morphemic integrity, and 'expected' pronunciation.
Sentence Stress: A Pragmatic Device

In Jackendoff’s (1972) discussion of the use of stress in defining focus, he appeals to the Nuclear Stress Rule for the assigning of sentence stress. However, Schmerling (1973) and others have shown that such a rule will not give correct results. A principle of sentence stress assignment is offered in this paper which will account for the cases discussed by Jackendoff, questions with contrastive stress, and those sentences involving “association.” The principle also subsumes several of Schmerling’s principles by which sentence stress is assigned.

Sentence stress is a pragmatic tool, responsible to discourse structure, which bounds asserted material. Stress placement appears rightmost in simple NP VP constructions as the bounding element of the “comment,” or predicate. In sentences like “Mother’s coming,” discussed by Schmerling, the strategy requires a bounding left of the supposedly normal stress placement precisely to avoid the presupposition-assertion pattern given by rightmost stress.

Additional cases in which rightmost sentence stress does not occur include contrastive stress, identifying sentences, like “Here’s a man I’d like you to meet,” and sentences in which the deep object or complement, when moved, retains chief sentence stress, eg. “What book do you want?”. It is argued that contrastive stress follows the same principle of bounding. In a sentence like “Jack hit George and then Bill tripped the son of a gun,” stress bounds precisely the newly asserted material. Semantic material to the right of the stress is presupposed. In identifying sentences like “I saw the man that I liked” vs. “I saw the man that I liked” stress bounds the limits of the identification. In the third set of cases, those in which deep objects or complements sometimes bear primary sentence stress, it is argued that the demands of deep and surface bounding conflict, causing the possibility of alternative stress placement. An analogous situation obtains in the interpretation of quantifiers in passive sentences where, in a sentence like “A man was kissed by every girl,” the active sentence interpretation that for every girl there was a different man kissed is possible.

Discourse provides the presuppositions against which newly asserted material is presented: a principle such as I maintain for stress assignment is tied closely to discourse structure. A notion of bounding requires consideration of sentence syntax as well, however. For example, despite the fact that both A and B know that C is female, the normal stress pattern would be “She’s a beautiful girl.” With the definite article, the same stress pattern would be felt to be contrastive, as would a sentence with stress on “beautiful.” An explicit account of the term “asserted material” requires examination of other syntactic contributions to the sentence.

Linguistic Portrayal of Girls and Women in Texts

The textbook remains the main tool in American classrooms. Texts impart two types of information; specific information targeted at improving skills is a certain discipline, and latent material about values systems. The dual input means that while Jane learns about history and reading, she learns about ethical values and standards of behavior for women and men.

This paper cites conclusions from an exhaustive study of the portrayal of females and males in 8,000 text illustrations and analyzes the linguistic behavior of women in the same texts. The analysis of illustrations was done on the most widely used textbooks during the period from 1967 to 1972 in science, mathematics, reading, spelling and social studies. Each illustration containing one or more persons was analyzed as to age, sex, race, expression, activity, occupation and other dimensions. The findings showed that 1) females are scarce in all texts and constitute only 31% of the text total, 2) that females decrease as the grade level of material rises; for example, in a spelling series six women are 43% in the second grade and a mere 15% in the sixth grade, 3) that the occurrence of women or girls in illustrations depends in part upon the subject; for example, only 26% of the persons depicted in science texts are women. The text illustrations also treat girls differently from boys regarding their range of situations; girls cry, sulk, and tremble. Moreover, girls are often pictured as passive and supportive in their responses to adults and boys; bungling and self-deprecating in their activities.

Textbook illustrations give a single uniform indicator for text content analysis; however, they convey only a part of the substantive and latent content. This study completes the examination of texts by researching the linguistic portrayal of males and females in the same text material from which the 8,000 illustrations were drawn. Owing to the sheer volume of data we randomly selected text pages and analyzed 1) references to how female and male subjects spoke and 2) the language spoken by the characters. This material was studied according to quantity of speech (number of words, count of qualifiers, length of utterance) to determine assertiveness and passiveness. 2 Supportiveness was measured by affirmative responses to other characters’ language and behavior, as well as questions which allowed other characters to do anything. Affirmative responses included expressions of support (gee, great), and qualifiers (I guess, I think). Questions are typified by What do you think we should do?

Preliminary analysis indicates that widely used texts depict the linguistic performance of female characters to be supportive and to lack assertiveness. In texts, females talk less that males in the same way that females are shown in only 2,500 out of 8,000 illustrations. Further, females are assigned supportive and passive roles in linguistic scripts in the same way they are illustrated standing, watching and admiring. In brief, the latent content of the illustrations is reinforced by the linguistic characterization and scripts of the school texts. Text analysis is critical in helping teachers, publishers, practitioners and consumers select sex-fair curriculum materials.

L. Weitzman "Images of Males and Females in Elementary School Textbooks in Five Subject Areas" (Audiovisual) NEA Meeting Chicago (1974)
2 Similar indicators are used in Lynette Hirschman’s "Analysis of Supportive and Assertive Behavior in Conversations" Summer LSA Meeting (1974)
Complement Subject Deletion and Cyclic Lexical Insertion

The problem of complement subject deletion in sentences like (1) and (2) has thus far resisted solution.

\begin{enumerate}
\item[(1)a)] I refused to resign.
\item[(b)] I refused Dick to resign.
\item[(2)a)] I expected to resign.
\item[(b)] I expected Dick to resign.
\end{enumerate}

As these and many similar examples show, the permissibility of an overt complement subject in embedded infinitives is idiosyncratically determined by the verb of the matrix sentence: \textit{refuse} takes only subjectless infinitival complements, while \textit{expect} takes infinitives either with or without subjects. Previous attempts to account for such facts (e.g., by means of rule features or ad hoc constraints on deep structures) have led to undesirable consequences for the grammar. Data like (1) and (2) can be accounted for with no unnecessary increase in the power of the grammar if two steps are taken. First, it is necessary to postulate an obligatorily deletable dummy NP \textit{PRO} (for which there is independent motivation), as suggested by Chomsky and others. This permits verbs like \textit{refuse} to be lexically subclassified for \textit{PRO}, thereby specifying at the point of lexical insertion of \textit{refuse} that its complement be subjectless in surface structure. Second, lexical insertion must be performed at the beginning of each cycle, prior to any non-lexical transformations. This step is necessary because the deleted NP may be the derived subject of the embedded sentence.

\begin{enumerate}
\item[(3)] I refused to be fingerprinted by the police.
\end{enumerate}

If \textit{refuse} is to be subclassified as requiring \textit{PRO} as the subject of its complement, then when \textit{refuse} is inserted, \textit{PRO} must already be in subject position, i.e., the cyclic rules must have previously applied within the embedded sentence.

Reorganizing the grammar in this way makes it necessary to revise the notion of deep structure. Instead of a single deep structure in a derivation, there may be several post-lexical structures, one for each cycle in a derivation, and each defined as the point in a given cycle prior to which only lexical rules have applied but preceding the application of any non-lexical transformations.

\textbf{Krishanjee N. Sinha}

\textit{Topic and Comment in Generative Semantics}

This paper goes into various treatments of 'topic' and 'comment' and suggests why and how it should be handled within the framework of generative semantics.

Disatisfaction with Chomsky's (1965, p.221) treatment of 'topic' as the leftmost NP immediately dominated by S in the surface structure has turned linguists in recent days to the Prague School concept of 'topic' and 'comment' as formulated by Mathesis (1939) and interpreted by Fias (1964, 1966) and Danes (1970). But this approach confines itself to the surface sentences only and has no way of saying that the topic of (1b) is not 'the book' but 'the book that I saw':

\begin{enumerate}
\item[1a.] I saw a book.
\item[1b.] The book was a novel.
\end{enumerate}

Halliday (1967) suggests distinction between 'theme' and 'topic' but gives no arguments to support why in (2a) 'my grandfather' is 'focus' but in (2b) it is 'focus' as well as 'theme':

\begin{enumerate}
\item[2a.] My grandfather sold these houses.
\item[2b.] These houses my grandfather sold.
\end{enumerate}

Kuno's (1972) distinction between thematic and neutral description remains equally unclear. I suggest that the concept of 'theme' is closely related to the concept of presupposition. Thus, in (3b) the 'theme' is not 'I' or 'I saw' but 'I saw someone':

\begin{enumerate}
\item[3a.] Whom did you see?
\item[3b.] I saw my brother.
\end{enumerate}

Similarly, though (4a) and (4b) are transformationally related, they are answers to different questions and have different presuppositions:

\begin{enumerate}
\item[4a.] Henry married Susie in New York.
\item[4b.] It was in New York that Henry married Susie.
\end{enumerate}

Instead of saying that presuppositions are related in a regular way to the details of the surface sentences—which are arrived at by applying different transformations—the paper shows that the latter is the necessary outcome of the former. It goes against Carlota Smith (1971) who distinguishes between 'topic' and 'underlying subject' and suggests that the topic of a sentence in the first NP of the main (surface) sentence provided it has not been presupposed. If that were the case, the topic should not affect the underlying subject. But Sinha (1974) has shown that it does affect the choice of an underlying subject and of transformations. This paper presents a formalism that accounts for a chain of themes in the underlying form and shows how they are going to be related on the basis of presuppositional referents.
A Semantics for Cleft Sentences

Transformational analyses of cleft sentences are quite varied. Whatever the details of analysis, however, one feels that a cleft sentence, for example, (1) It was John that left is related to the sentences (2) John left and (3) Someone left and the matrix (4) X was Y. One difficulty with various deep-structures proposed for (1) is that they do not indicate the nature of the relation to (2)-(4) and do not capture the complexity of the use of (1) in a text. The relation can be made clear in terms of conditions on information states in a semantics of English based on states of partial information.

Roughly, the relation is that for (1) to be used to map an information state $I_0$ to an information state $I_1$, (3) must be true in $I_0$ and (2) not true in $I_0$ (not-true does not mean false in partial information states) and (2) must be true in $I_1$ and the difference between $I_1$ and $I_0$ is one accomplished by identification of referential indices for (4) to accomplish the map. The specific realization of the matrix (4) as, say, (1) depends on the linguistic structure of the context, e.g., recentness and importance of use of the indices to be identified, that is, as to whether it should be (1), (5) It was John, (6) It was him or (7) It was him that left. Because of the ambiguity of English sentences out of context, the mapping of an information state to another information state utilizes the textual context. In addition, the initial information state is available in constructing the map. Associated with each information state is an evaluation of a partial set of possible extensions or alternatives to that state. The textual context and the surface sentence offer maps in sequence, which are then selected using the above evaluation.

Syntactic restrictions receive an interesting accounting. The unacceptability of (8) It was George that I left before saw me is due not only to relative clause reordering constraints but also to limitations on search procedures on information states. The use of the reflexive pronoun in the matrix as in (9) It was himself is explained as simply the surface form appropriate to the place of missing information in a surface sentence. The basis for a mathematical semantics of information states and operations on them can be found in the work of Dana Scott and Christopher Strachey. Since the concept of computability figures in their semantics, it is perhaps more congenial to a linguist than the set-theoretical semantics of Richard Montague. We need to extend and modify the semantics to cover parallel functions, evaluated functions, and ambiguity, but the basis for a mathematical semantics of natural languages is there.


Stockwell, Robert P., et al (1968) Integration of Transformational Theories on English Syntax, MIT.

For Study of Semantic Structure in Social Context

This paper reports on a study of lexical usage, focusing on

|social terminology, conducted in several parts of India in 1970-72. Several types of variation in lexical usage will be discussed, showing different types of correlations with sociological factors such as status (caste, class, etc.), regional background, social context, etc. The detailed analysis of these cases leads to certain general conclusions of importance for theories of linguistic (especially semantic) structure:

1. lexical structure can be said to exist on three distinct levels: (a) the idiolect level; (b) the social dialect level (indeferrable from idiolects, but with a risk of stereotyping); (c) the speech community level. On this last level are found patterns which link synchronic and diachronic structures, but which are not found in the speech of any individual or group. The implications of these findings for theoretical constructs such as "linguistic competence" (Chomsky) and the langue/parole dichotomy (Saussure) will be discussed.

2. Data from the study show that speakers are aware of "dialect" variations, and that they frequently accommodate to others' usage (without necessarily becoming "bi-dialectal"). Therefore, the notion that a speech community's usage can be described exhaustively as a set of discrete "dialects" is fallacious.

3. Various linguists have pointed out that linguists' descriptions of meaning (as well as informants' statements about meaning) are often overspecific. In the context of this study, this can be explained in terms of social factors which restrict meaning but which tend to be unobserved. These factors become more apparent when the descriptive focus shifts to the speech community level.

4. The above findings lead to the conclusion that semantic structure cannot be adequately described without taking into account patterns at the speech community level, which have hitherto been ignored by most linguists.
Lexical Decomposition in Spanish

Within the context of Fillmore's case grammar, there are certain deep structure relations or case roles which are not realized on the surface because they have been lexicalized into the surface verb form. The process of lexicalization from deep to surface causes these roles to become hidden in the surface verb root. Enmarcar 'frame', for example, is analyzed in this way as poner 'put, place' plus the LOCATIVE case in the form of en un marco 'in a frame'. In addition to LOCATIVE lexicalizations such as enmarcar, embotellar 'bottle', enlatar 'can' OBJECT case lexicalizations of the following types are productive in Spanish, for example,

dar un beso 'give a kiss'
besar 'kiss'
dar un regalo 'give a gift'
regalar 'give a gift'
hacer un viaje 'take a trip'
viajar 'travel'
hacer una pregunta 'ask a question'
preguntar 'question'

On the surface, the lexicalization process sometimes allows that a lexicalized root such as alabar 'praise' from darle a alguien una alabanza 'give someone praise' where the OBJECT case has been lexicalized may take a surface direct object as in

(1) Al embajador le alabaron la intervención.
They praised the ambassador for his speech.

Although la intervención appears as a surface direct object it is to be interpreted in Fillmore's case grammar as coming from a higher predicate.

The need to identify these covert case types derives from the need to provide more explicit information about the verb in the lexicon. The kind of lexical decomposition described by McCawley (1968) and Dowty (1972) also provides some deep insights into the lexicalization process in terms of the CAUSE, COME ABOUT, BE types of semantic primes. On the lexical level, there also seems to be a finite number of primes (which are probably universal) of the type dar 'give', hacer 'do, make', poner 'put', tener 'have', etc., which would allow for a reduction of the number of verb entries in the lexicon on the basis of the lexical primes and lexicalized roles. The result of the combined insights of Fillmore, McCawley and Dowty are a simplified lexicon which will specify the properties of verbs which are necessary for semantic interpretation.

Drum languages and Tonal Analysis

Drum languages are widespread in Africa. Most of them are based on the same principle. The drum, usually a slit gong or other instrument with two fixed tones reproduces a sequence of tones that correspond in some way to the tones of the spoken language.

From a tonological point of view, drum languages which exactly correspond to the spoken language are not very interesting. The interesting problems are (1) how a three- or four-tone system in the spoken language is rendered on a two tone drum, and (2) how morphophonemic alternations, contour tones, downstep, etc. are handled.

Virtually all of the literature on drum language is descriptive, showing how spoken tones 'become' drum tones. I suggest that this approach should be reversed—how do drum tones 'become' spoken tones?

Like many secondary symbolic systems (e.g. writing) drum language is conservative. Therefore, in instances where spoken and drum tones do not exactly correspond, the drum tones may reflect an earlier stage in the history of the language. If this is correct, drum language provides an aid and/or confirmation to the reconstruction of the tonal systems of pre-Had proto-languages. At the very least, insight into the underlying phonemic tones is provided.

Moshamo is a Grasslands Rantu language of Cameroon. A strict synchronic analysis of the tonal system requires six phonemic tones, four level, rising, and falling. Historically Moshamo was a two-tone language; it can still be analyzed as such if 'floating tones' (tones whose influence remains after the segments which carried them are lost) are allowed in the underlying form. Historical and comparative evidence validates these floating tones.

I shall demonstrate that these floating tones have been retained in the drum language of Moshamo and that drum tones are, in fact, the underlying and historical tones of the spoken language.
A Law of Order

Proto Uto-Aztecan was a verb final language. Postpositions, the genitive order Possessor Possessed, certain auxiliaries which follow the verb -- all can be reconstructed for the proto language and point to its verb final character. While all the daughter languages exhibit these characteristics to some degree, one daughter language (Classical Aztec) has verb initial word order as its unmarked surface word order. How Classical Aztec, a descendent of a verb final language, came to exhibit regular verb initial surface word order is the topic of this paper.

The proto language had a clitic complex, including emphatics and modals, that marked as topic whatever preceded it. It is the continuation in Classical Aztec of this function of the clitic complex and the development of another function for it that have resulted in the verb initial word order. In Classical Aztec the clitic complex marks the beginning of the verbal complex; anything between the modal and the verb is incorporated in the verb. Thus, a subject -- or an object -- which is not also a topic may not precede the clitic complex. And an object -- which is not also incorporated may not occur between the clitic complex and the verb. The verb is initial.

The development of the Classical Aztec verbal complex is a direct result of the presence in the proto language of resumptive and presumptive pronouns which could co-occur with, but filled different positions than, their noun referents. Re- from the determiner node in an NP to the NP node itself, thereby affecting the novel to occur in front of the clitic complex or after the verb. Bound more closely to the verb than their noun referents, the re- and pre-sumptive pronouns created the possibility of reinterpreting as part of the verb the section of the sentence between the clitic complex and the verb.

Re- and pre-sumptive pronouns may develop in ways different than they have in Classical Aztec; other Uto-Aztecan languages attest to other possibilities. However, since there is a strong tendency in verb final languages to exhibit a clitic complex of the sort found in Uto-Aztecan, and since the operation of a language's pronominal system may be an important measure of its potential for a change in word order.

Historically, the Irish comparative construction contained a relative clause. Though it is less obviously the case in modern Irish, there is evidence that it should be so analysed syntactically as well. The clearest type of sentence showing a relative construction, in which the adjective, inflected for comparison, appears in predicate position with the relative: 1.

1. an fear is sine the oldest man
  the man Cop old-Comparam

The relative form of the copula is identical to the non-embedded copula, an example of which is given in 2.

2. Is muinteoir Seán. John is a teacher.
  Cop teacher John

In the past tense, is takes the form bh, both in ordinary copular sentences and in superlatives, 3 and 4 respectively. Both affect the same phonological change on the initial vowel of the following predicative:

3. Bh muinteoir Seán. John was a teacher.

4. Chonaic mé an fear bh shine. I saw the oldest teacher.
  saw I the man Cop-far old-Comparam

Comparative sentences may have a similar structure with a copula:

5. Is sine Seán ná Séamas. John is older than James.
  Cop old-comp J. than J.

But alongside sentences like 5 are others like 6, with equivalent meaning, but a verb "to be" which is not part of the copula paradigm.

6. Tó Seán níos sine ná Séamas.
   is J more old-comp than J

Historically, níos is also divisible into a head noun ní "thing" and a relative form of the copula is. This etymology has been forgotten by speakers of modern Irish, however, and níos appears to be hit as a frozen form. Typically in modern Irish, adjectives may not appear alone in the predicate of the copula, though in Old Irish they always did.

7a. Tó Seán deas. John is nice.

b. Is deas Seán.

But, with the addition of a comparative inflection, sentences like 1 and 5 are precisely the same type as 7b. An analysis in which the adjective is part of an underlying Np in a relative clause will explain this. Such an analysis will also permit unified treatment of sentence types above and other comparative expressions like is deas to, an dealt siúd "that much money" and an modh in a triúr "that much money," with quantifiers that behave overtly as Np's, governing the genitive and taking NP determiners.
Two views of rule operation have appeared in the recent literature. The Bounded Hypothesis, an extension of Chomsky 1973, states that the application of transformations is limited to the same or adjacent cycles (the subjacency condition). Under a more powerful alternative, the Unbounded Hypothesis suggested by generative semanticists and others, transformations are limited only by global derivational constraints and may apply at any appropriate stage in a derivation. The Unbounded hypothesis allows (1c) to be derived directly from the underlying structure (1a) by wh-movement, while the Bounded hypothesis requires two applications of this rule and the intermediate stage (1b):

(1) a. Pat saw [s the shark eat who ]
   b. Pat saw [w who the shark eat ]
   c. *who did Pat see the shark eat

Evidence from the interaction of NP-preposing rules (e.g. wh-movement, it-replacement) supports the Bounded hypothesis over the Unbounded version.

First, the Bounded hypothesis claims that only one wh-constituent can be preposed from a single embedded S. According to the Unbounded hypothesis all of (2) should be grammatical:

(2) a. Sue learned what belonged where
   b. *what did Sue learn where belonged
   c. *what did Sue learn where belonged

There are also cases where the presence of an intervening complemenitizer at the intermediate stage prevents the extraction of a wh-phrase and where the intermediate position required by the Bounded hypothesis can be filled, as in (3a) and (3b) respectively:

(3) a. *who does Mike regret that the shark ate
   b. the police found out who sold the grass

Second, the Bounded theory captures a significant generalization about complement structures of different types, describing the ungrammaticality of the (b) examples below by a constraint which includes preposed constructions:

(4) a. where is it fun to tickle Paul
   b. *where is fun to tickle Paul
   (5) a. in whose garden does there seem to be a unicorn
   b. *in whose garden seem to be a unicorn

Comparable sentences containing a wh-NP (who, what) are grammatical both with and without the expletives IT and THERE:

(6) who is (IT) fun to tickle
(7) who (seems / does there seem) to be in the garden

Two methods are available for preposing wh-NP's in complements such as these, wh-movement and it-replacement, whereas only wh-movement can be used for wh-constituents that are not noun phrases.

The Bounded hypothesis presents a unified picture of otherwise disparate facts that must be stated as separate restrictions under the Unbounded analysis. The added power of the Unbounded hypothesis is unnecessary as well as undesirable, and the data select the Bounded hypothesis as the superior of the two theories.

The Latin "Genitive with Verbs" of the Type Flocci Facere, Quanti Emere

The aim of this paper is to establish an adnominal origin for the Latin "Genitive with verbs" in expressions such as flocci facere, quanti emere. A noun in the genitive is usually dependent upon another noun, but may be governed by verbs of remembering, filling, etc. These few adverbal uses are inherited and have parallels in other Indo-European languages. Flocci facere, quanti emere fall into neither category but their peculiar structure is not explained in traditional descriptions. Some Latin scholars resort to semantic classifications of the nouns involved as genitives of value, price or quality (Hale-Suck, Allen & Greenough) but fail to explain the absence of a head noun. Others relate the -i ending of the Latin Genitive to an -i ending in Sanskrit labeling "the state into which something has changed" (Bennett) or claim that the relationship between the verb and these genitives is the same as the relationship between two nouns, one of which is in the genitive (Ramler). Since all of these explanations limit themselves to the surface manifestation of these adverbial genitives, none accounts for the facts in a satisfactory way. Both flocci and quanti are better viewed as genitives that were adnominal in origin but which either lost or became syntactically independent of their head nouns.

Adverbial genitives of the type flocci facere 'to consider worth a lock of wool' can be derived from a noun phrase in an underlying infinitive clause. Thus te non facio te esse aliquem flocci "I don't give a hoot about you" would ultimately derive from non facio te esse aliquem flocci I don't consider you to be someone of (worth) a lock of wool." The infinitive clause is attached with facere 'to consider' and there is ample evidence for rules allowing for the deletion both of esse and of accusatives like aliquem.

The use of the genitive quanti 'how much' may derive from a reinterpretation of an original noun phrase consisting of a head noun + quanti. In early Latin quanti (and the other adverbal genitives of price with quanti 'as much,' pluris 'more,' minoris 'less') appear most commonly with amere 'to buy.' In Plautus' plays, especially the Mercator, and in Terence's Eunuch buying and selling revolves mainly around the acquisition of slaves, not things. The underlying noun phrase for quanti may be postulated as servum/quantum emere? 'a slave of (acquiring) how much did you buy?' Recanwalls as servum/quantum emere? 'how much did you buy the slave for?' This reinterpretation led to the lexicalization of quanti and its extension into other contexts.
A Stratificational View of Historical Syntax

This study treats a problem in historical syntax/semantics in the stratificational (SG) model and shows that SG predicts a side to syntactic change not predicted in transformational-generative (TG) studies. The interrelation of deictic function and negation in simple clauses in Russian is described in three related parts: semotactics (linguistic semantics), lexotactics (surface syntax), and the realizational relations connecting them. Structures describing earlier and later stages are detailed, and changes are found in all three parts of the description. The problem centers on the distinction between negated clauses with the normal genitive direct object and those which retain the accusative direct object found in non-negated clauses. Accusative signals deixis in the environment of negation: 1) Ivan ne ctitet knigi(gen)/knigu(acc) 'John isn't reading a/the book'. Adding the demonstrative etot 'this, that' gives 2) Ivan ne ctitet etoj knigi(gen) and 3) Ivan ne ctitet etu knigu(acc). (3) is redundantly marked for deixis (by the demonstrative and by the accusative in the environment of negation). Two generations ago, (2) was ungrammatical. The situation is now in flux, with (2) gaining preeminence over (3). The probable conclusion will see both variants of (1) and (2) said and understood, but (3) will be understood though not spoken, except in recitation from literature. Comparison of the SG descriptions of earlier and later stages shows a semotactic change (corresponding to R. Lakoff's change in lexical redundancy rules), a change in semo-lexenic realizational relations (corresponding to Chu's change in transformations), and a lexotactic change. It is argued that the lexotactic change was not predicted by Lakoff or Chu because no TG model includes an integrated description of surface syntax. The lexotactic change parallels changes in only the right-hand side of some transformation(s) or phrase structure rule(s).

The Sex-specific Use of Poetic Devices: Some Counter Examples

It has frequently been pointed out before this body (see Niles and Stanley: both LSA papers, 1973) and elsewhere (see Lakoff, 1973 and accompanying editorial note) that such poetic devices as personification, synecdoche, dehumanification*, as well as other metaphorical forms are regularly employed to refer to, to pejoriate, or to depersonalize women. It has further been maintained that the use of these devices is typical of (some say, unique to) the male author and that the referent is almost exclusively a female.

The task of this paper will be to present specific and copious evidence from classical literature as well as such popular sources as Kazan, McCarthy, and Updike. These data indicate that both the above mentioned poetic devices resulting in depersonalization and denigration are not confined to male writers and, further, that the person referred to need not be female nor, for that matter, of the opposite sex from the writer. It will be maintained that the primary cause of the difference in the volume of male- and female-authorized material containing depersonalizing poetic devices is merely the logical outgrowth of a sociolinguistics and socioliterary environment which is male dominated.

*This term names the poetic device which attributes inanimate characteristics to human or living beings; "George oozed into the chair" or "Mary melted in the sun" are good examples. The device, in fact, may be considered the compliment of personification.
The Importance of Transition Markers to Paragraph Coherence: A Progress Report

Composition teachers have long realized that many college students cannot write coherent and unified paragraphs in their native language. We suggest that this deficiency stems to a large degree from the fact that most instances of verbal communication consist of dialogue between two or more speakers. In most conversations, speakers rarely contribute more than short stretches of speech at a time, while relying heavily on the dialogue partner to fill in omitted information. The amount of information withheld depends greatly on the relationship and the degree of familiarity between the dialogue partners, as Joos has so aptly sketched in The Five Clocks.

Reliance on dialogue as the dominant form of discourse can be expected to have among others the following three consequences:

1. Concentration on clausal and sentence units rather than on longer stretches of discourse;
2. Neglect of transition markers between sentence units; and
3. Loss of awareness of the importance of logical sequences.

Every freshman composition teacher will verify that these are, indeed, three of the major shortcomings in freshman themes.

We intend to show further that interclausal and intersentential transition markers and logical sequence indicators (connectives, conjunctions, and adverbials) play an important role in paragraph recognition. We have prepared a number of paragraph recognition tests, each testing the role of different information in the recognition of paragraph divisions. Our preliminary results indicate that the elimination of all content elements does not significantly affect the recognition of paragraph divisions. But a significant drop results when some of the intersentential transition markers are eliminated as well.

We argue in this paper that the structural markers primarily responsible for paragraph coherence (as demonstrated by paragraph recognition tests) can be expected to represent the greatest difficulty for the composition student. The high degree of correlation between the elements that make a paragraph coherent and those elements which present the greatest difficulty for composition students suggests that the treatment of transition markers should be much more fully integrated into the discussion on paragraph coherence and unity than is done in most freshman composition texts.

Some Aspects of Aspectual Verbs

Perlmuter (1970) proposed that aspectual verbs (e.g., begin) occur both as transitives and intransitives. His arguments are based primarily on the like-subject constraint for verbs like try, intend, refuse. These verbs can, however, take what are usually analyzed as one-place raising verbs in their complement. Extending Perlmuter's analysis, seem and appear would also have to be both transitive and intransitive.

1. John tried to seem to be busy.
2. Newmeyer (1969) has argued convincingly that aspectual predicates are always one-place and that the like-subject constraint is really dependent on controllability. Additional arguments (e.g., 1 above) will be presented to establish the one-place nature of these predicates.
3. Dowty (1972) has claimed that Von Wright's "and then" calculus is sufficient for describing the truth conditions of aspectual verbs. To describe the logic of change, Von Wright proposes a two-place operator, T, and a discrete time axis with the conditions:

\[ \text{if} \quad p \quad \text{at} \quad t_0 \quad \text{if} \quad q \quad \text{at} \quad t_1 \quad \text{true} \]

This calculus was essentially based on the belief that the aspectual verbs presupposed the truth of their complement at a time prior to the time of utterance. (See also Givon 1972.)

L. Karttunen (1974) has observed that there are reasons for believing these "backward presuppositions" are merely assertions. Consider sentence 3 uttered by a N.Y. cop who has observed that a certain teenager does not use heroin:

4. If that kid has stopped using heroin, I really admire him.

Similarly, contrastive stress easily suspends the truth value of the complement of aspectual verbs. Contrast 4 and 5:

5. Has John stopped smoking?
   Will Bill ever start working?
5. Has Nixon forgotten that he was nearly convicted?
   Will Nixon ever regret that he lied?

A context dependent analysis of the truth values of aspectual verb sentences is necessary. To preserve Von Wright's classical logic of change, Gricean conditions on the use of aspectuals will be given. Sentences with aspectual verbs are uttered in contexts where the speaker believes in the probability of the "backwards presupposition". Transderivational constraints restricting the contexts which admit aspectual sentences will be proposed. For example:

6. \( \text{STOP} (S) \) is admitted by the context \( X \) at \( t_0 \) if
   \[ \text{X}(\text{High}(\text{BELIEVE}(\text{Speaker}, \text{PROBABLE}(S \text{ at } \text{t}_0)))) \text{ at } t_0. \]
An Acoustic Explanation of a Sound Change: *-at to -e, *-ap to -o, and *-ak to -æ in Lisu

In Lisu, a member of the Lolo-Burmese family, -e is the modern reflex of *-at, -o is the modern reflex of *-ap, and -æ is the modern reflex of *-ak. These changes lack a convincing articulatory explanation, but a simple and straightforward acoustic-based explanation exists, at least for the first two changes: the steady-state values of the second formant assimilated to the second formant transitions of the final consonants, and the consonants were eventually lost. -p entails the coming together of the flat surfaces of the lips, with a closed velum and an unspecified tongue position; -o entails the rounding and fronting of the lips, and optionally open velum (in other words, the sound can be nasalized) and a highly specific tongue configuration. What these sounds have in common is that the second formant transition for -p and the steady-state values for -o both tend toward 720 Hz. Similarly, -t entails the extreme raising of the tongue and a complete closure around the alveolar ridge, an extremely different gesture than that required for -e. Both the second formant transition of the consonant and the steady-state value of the vowel, however, tend toward 1800 Hz. An articulatory explanation would likewise be inadequate for the change from *-ak to -æ, and an acoustic-based explanation, parallel to the other two cases but somewhat less clear-cut, seems to be indicated. The facts here are yet another demonstration that the acoustics of the speech signal can explain certain phonological processes that cannot be explained in terms of articulation.
Theoretical Implications of Hungarian Vowel Harmony

This paper discusses and seeks to resolve a number of controversial issues regarding the description of vowel harmony. Original arguments are presented, using data from the vowel harmony system of Hungarian.

Previous analyses set up abstract back vowels for those neutral (unrounded front) vowel roots which take back vowel suffixes. Jensen (1972) posits abstract vowels also for mixed vowel roots, i.e. those which contain both neutral vowels and back vowels. This analysis is refuted by two empirical arguments.

First, an argument is given showing that the underlying representation of bêka is /bêka/ and not abstract /bêka/. This implies that the vowel harmony rule (VH) does not apply within roots; otherwise, /bêka/ becomes *bêke. However, there are two general cases where VH does apply within roots: epenthetic õ, and ù derived from /w/ by a syllabifying rule, undergo VH. Thus, /bokr/ => bôkôr, /tûkr/ => tûkôr, /talâw/ => talû. These facts support Kiparsky’s (1973a) claim that non-automatic neutralization rules apply only to derived representations. The facts also show that the morpheme boundary + or a diacritic feature like ¬[ROO] cannot be mentioned in VH.

Secondly, it is argued that radîr is underlying /radîr/ and not abstract /radîr/. Since roots like radîr take back vowel suffixes, VH assimilates a suffix vowel to the last preceding non-neutral vowel. Thus, non-adjacent assimilation must be permitted, contrary to the claim advanced by Jensen (1972) and Howard (1972).

Lastly, the formalization of VH rules is discussed. Two VH rules are postulated: a marked backing VH rule which backs a suffix vowel to the non-adjacent (last preceding) back vowel of the root, and an unmarked +variable VH rule which assimilates a suffix vowel to the adjacent (preceding) root vowel. The disjunctive application of these rules supports the “Elsewhere Condition” of Kiparsky (1973b).
Islands and Coreference

Pronominalization rules are widely thought to be completely unaffected by Ross’ island constraints. The aims of this paper are to demonstrate the existence of a coreference rule which is sensitive to islands and to consider the consequences of this fact for linguistic theory.

Howard Lasnik has observed that epithets may not be understood as coreferential with NP’s which both precede and command them. Similarly, two fully identical NP’s may not be coreferential if the first commands the second, as George Lakoff observed some years ago. Thus, in the following examples, the underlined NP’s may not refer to the same individuals.

(i) a. All admit that the bastard stole the money.
   b. Oscar realizes that Oscar is unpopular.
Lasnik proposes roughly the following rule of non-coreference.
(ii) NP₁ and NP₂ may not be coreferential if NP₁ both precedes and commands NP₂ and NP₂ is not a pronoun.
(iii) requires some modification, but if is a good enough first approximation. The examples in (iii) all appear to be counterexamples to (ii).
(iii) a. John is in more trouble than the poor fool realizes.
   b. My boss fires anyone who criticizes the bastard.
   c. Jim will keep talking until someone shuts the loudmouth up.
   d. Our landlord denies the fact that the dirty pig overcharges.
   e. Max thinks that for the s.o.b. to find another job would be easy.

The epithet in each of the examples in (iii) is in an environment which prohibits extraction (e.g., by questioning or relativization); that is, the epithets are in islands. This suggests that rule (ii) may be inapplicable if NP₂ is in an island not containing NP₁.

If this conclusion is correct (and there seems to be some corroborating evidence), then the problem of specifying formally the categorizes of rules subject to island constraints becomes even more difficult than it seemed before. It is well known that some deletions (e.g., comparative deletion) obey the constraints, while others (e.g., slicing) do not; it now appears as though at least one interpretive rule (i.e., rule (ii)) obeys them, although others (e.g., the rule for interpreting do so) do not. I can find no principle which predicts which classes of rules are subject to the constraints and which are not.

Three classes in introductory linguistics on the undergraduate level were each taught by a different method: class one was taught by a rote method in which class lectures and handouts were the norm, and all issues, problems, and theories were presented with a full explanation by the instructor without requiring any involvement from the student other than asking questions; class two was taught by a deductive scheme in which principles, concepts, and issues were stated and the class was asked to generate examples, applications, and extensions; and class three was taught by an inductive system, wherein students were given sets of cases or interrelated problems and asked to come up with the theory or principle.

The courses were all alike, each being concerned with three content areas--developmental psycholinguistics, syntax, and sociolinguistics. On the first day of the course in all three sections, students were pretested for knowledge in all three areas. Students were then tested again with the same test on the last day of the course. Students were also asked--on the last day--to rate the teacher and the course on a scale from 1 to 4 (4 being excellent). The results are as follows:

| Improvement as measured by Pre to Post change scores (class means) N=92 |
|-------------------------------|--------|--------|--------|--------|
| dev. psycholinguistics        | syntax | sociolinguistics |
| rote                          | 1.86   | 5.01   | 3.29   |
| deductive                     | 2.43   | 3.29   | 3.43   |
| inductive                     | 2.14   | 3.00   | 4.10   |

Ratings

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<th>Teacher</th>
<th>Class</th>
<th>avg rating</th>
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The rote scheme effected the greatest change for syntax, the deductive and inductive for sociolinguistics. There was the least improvement in dev. psycholinguistics overall, perhaps because initial scores were high, as most students had just had developmental psychology as part of their program. Students enjoy the deductive scheme the best, and inductive least, and within a given class, there was high correlation for individual improvement in an area and rating of the course and teacher. Most teachers mix styles for all content--perhaps a more specifically stylized approach might generate greater improvement and enjoyment for students.
Genotype, Performance, and Selection

Preliminary data analysis of tests of the language behavior of identical (N=9 pairs) and fraternal (N=12 pairs) teenage twins suggests that there are different correspondences for different language behaviors. Twin subjects, aged 12-16 years, were asked to (1) explain what the subject was doing in sentences such as "Mother thanked Sam for taking the garbage out and I did the same"; (2) state the main subject in a sentence such as "Sue is the girl is eating supper"; (3) offer a paraphrase of three part compound nouns such as "baby peel radish" and "storm dark night", and (4) define 40 words which are used as a section of the W.A.I.L.S. I.Q. test.

For judgements of what the subject is doing in sentences with slightly ambiguous construction, fraternal cotwins agree with one another 56% of the time, and identical cotwins agree with one another 92% of the time. For determinations of subject in sentences like "Sue is the girl is eating supper", fraternal cotwins agreed 62% of the time, and identicals 88%. In the paraphrasing of compounds however there was high agreement in both groups: for fraternals, cotwins agreed 87% of the time; in the group of identicals, cotwins agreed 66% of the time. Analysis of correct definitions of words is two part: the first part, a simple quantitative score difference shows again that identicals have more identical vocabularies (4 point difference) than fraternals (10 point average difference), the second part—which is not complete—is an analysis of the way cotwins in both groups define the words they do which may or may not show the same pattern as the other data.

False pairs of twins, made of a random pairing of age matched twins in groups gives an estimate of correspondences between randomly selected non-related subjects. These data appear as follows: ambiguous construction, false frats 44%, false ids 38%; cleft type sentence, false frats 63%, ids 68%; compounds, false frats 51%, false ids, 62%.

Eliminating performance factors, if competence were universal and equal, then identicals should be no more alike than fraternals, and fraternals should be no more alike than any two random individuals, a pattern not found in these data. If further data analysis supports these findings, it may be argued that a genotypic contribution to performance variance exists, and itself offers evidence for continuing natural selection.

The Semantics of Syntax: A Semantic Analysis of Adjective Position in French

It is taken as basic to the following study the Jakobsonian view of language as a system of semiotic signs (a combination of a form and a meaning) of the purpose of which is the communication of information. Given this definition, all units of language are to be studied in the light of their semantic role with respect to the communicative function of language.

While it is claimed that all grammatical (syntactic) constructions have a semantic basis, this will be exemplified on only one area of grammar—word order—and, in particular, the order of the attributive adjective with respect to the noun in French. It is hoped that the results in this area will demonstrate how a semantic analysis should proceed when there are no more complex grammatical structures.

In order to do such a semantic analysis of a syntagmatic construction, the following principles are applied. The principle of Formal Determinism, whereby it is assumed that a unity of form normally gives a unity of meaning. The units of meaning, Invariants, are expressed in terms of semantic distinctive features, by the principle of Paradigmatic Opposition and the use of minimal pairs, whereby the pairs [adjective + noun] and [noun + adjective] are abstracted from time and considered to be paradigmatic replacements for each other, the only differentiating factor being the word order. The difference in meaning, then, will be the feature attributed to word order itself. Since we are dealing here also with the process of modification, its semantic nature—the intersection between specific parts of speech, where the modified (here, the noun) is considered to be more basic than the modifier (here, the adjective)—is defined. With the aid of minimal pairs (e.g., furieux mentor vs. mentor furieux, naître soldat vs. soldat naître, ancienne bibliothèque vs. bibliothèque ancienne—other pairs will be provided on a handout) and by discussing the difference in interpretation which one gets for various adjectives in post-position as against pre-position, it is shown that post-position of the adjective is the unmarked word order in French. That is, post-position is little different from the semantic nature of modification itself: it presupposes little more than the parts of speech involved and their roles as modifier and modified. Pre-position on the other hand is the marked word order, whereby the modification situation presupposes not only the noun as a part of speech but also as a complex of lexical features. That is, pre-position, the adjective modifies the noun as a part of its lexical capacity as well as in its part of speech capacity. In pre-position it is assumed that the lexical range of the noun has already been identified and that the adjective then modifies this range.

It is concluded that (1) word order is a semantic phenomenon of language and can be described in terms of distinctive features, (2) word order with respect to other categories (e.g., adverb/adjunct, noun/verb) can be handled with the same feature, (3) other grammatical problems can also be handled by the same principles. Most importantly, since the semantic system of language is assumed to be characterized by a number of distinctive features, then the feature found for word order should return, mutatis mutandis, in other systems; my research shows that it does appear in the prepositional system (sens vs. en, sur vs. à), the verbal lexical system (marcher, partir vs. aller), and the 'tense' system (the subjunctive, the passive simple).
Broca's Area

Since the 19th century, neurolinguistic approaches to language and brain have grappled with the question of localization, and Broca's area has emerged at the center of this controversy. Exemplifying one point of view, Prichard (1971) claims that "an intact Broca's area is not necessary for normal speech." Lenneberg (1967) claims that there is no anatomical uniqueness to Broca's area compared to non-human primates and "there is no clear evidence that Broca's area is more specifically related to speech than areas related to it." However, Prichard has misinterpreted his data source (Mettler, 1945) and Lenneberg was evidently unaware of the work of Bonin & Bailey (1961) and Sarkissian (1966, from the 1964 Russian text), which cast doubt on their respective claims.

An important source of data on the function of Broca's area is brain autopsy material. The relevant clinicopathological details of some classic cases (Broca, 1861; Simpson, 1867; Tuke & Fraser, 1872; Foulis, 1879; Bramwell, 1890) and some more recent ones (Nielson, 1946; Luria, 1970; Mohr, 1973; and the one of the author) support both of both an afferent and an efferent speech mechanism and (b) Mohr's hypothesis that under some circumstances the right hemisphere is homologous to Broca's area may take over certain functions of these mechanisms. From these it must be concluded that the "speech area" is larger than what has been traditionally labelled Broca's area; in fact, it approximates the area of the lesion in Broca's original case.

Contributing to the difficulty in establishing the role of the speech area is (a) the well-known fact that brain lesions are variable in location and (b) the less-well-known fact that there is a striking degree of individual variation in the physical size of component areas of the brain (Blinkov & Glezer, 1958; Sarkissian, 1966), including the traditional Broca's area. Therefore, the same size lesion could destroy all of Broca's area in one brain but only three-fourths of it in another.

Additional sources of data which are not discussed in this paper (EEG analysis, angiography, neuropsychological ablation, Sodium Amytal testing, and computerized axial tomography) are, however, consistent with the autopsy data. The conclusion drawn from this mini-review is that the case against localization is not at all substantiated; however, the picture is not a simple one of merely labelling left and right on the brain surface. The interplay or individual neuroanatomical variation, accidental variation in brain damage, interaction of the right and left hemispheres and the obviously incomplete linguistic analysis of speech production, pose a complicated problem for future research.

The Derivation of Cleft Sentences in English

A topic of general interest in the current syntactic literature is the relation of pseudo-cleft sentences like 1) and 2) to cleft sentences like 3).

1) What struck the house was lightning.
2) The thing that struck the house was lightning.
3) It was lightning that struck the house.

It has been proposed (e.g. Akmajian, 1970) that there is a transformational relation between sentences 1) and 3). However, to date, analyses of the relations between clefts and pseudo-clefts have failed to explain in any principled way the striking fact that clefts contain an "it" as their subject. It is the thesis of this paper that under the non-controversial assumption that a transformational relation between clefts and pseudo-clefts like 2) obtains, the existence of "it" in clefts follows automatically from independently motivated principles of grammar. More specifically, given that sentences like 3) are derived from structures like that represented in 2), it follows necessarily from the following independently motivated processes of English that "it" should occur in sentences like 3):

Pronoun Deletion, Article-Pronoun Conversion, and Extrapolation.

The following derivation is illustrative:

The thing that struck the house was lightning

♣ Pronoun Deletion

*The that struck the house was lightning

♣ Article-Pronoun Conversion

*It that struck the house was lightning

♣ Extrapolation

It was lightning that struck the house

Assuming the non-controversiality of Extrapolation, the existence of the first two processes is independently supported by facts about right and left dislocated sentences and by facts adduced by Postal (1966).

This explanation has as a natural consequence the heretofore unexplained fact that sentences like 3) cannot have adjectives as the post-copular constituent (e.g. *It was tall that John hit derived from The one that John hit was tall) because of an independently needed restriction on Pronoun Deletion. Moreover, the analysis correctly predicts the existence of other structures which have not seriously been considered in studies of the derivation of cleft sentences, but which bear remarkable similarities to clefts, namely, structures like 4)

4) That was lightning that struck the house.
Black Southern Signing

Recent research in American Sign Language (ASL) has concentrated on demonstrating that ASL, a language channelled through the manual-visual modality, has linguistic properties similar to those of oral languages, except for physical sound. The absence of sound, however, really presents no theoretical problem since ASL has a formational level of structure analogous to, but not dependent on, the phonological component of oral languages.

This paper will discuss a relatively new area of research in Sign linguistics, ethnic-social variation. Because of attitudes and educational policy, Black signers in the South have developed different varieties of signing from Whites. Concentrating primarily on Black signs in Georgia, this paper will discuss some of the lexical and formational (phonological) variation observed in old and young Black signers.

Certain types of variation, such as the lexical unit PREGNANT (made on the face rather than in the space in front of the trunk) and sign phonological rules related to the use of "6" (middle finger contacting thumb) and "5" (index finger contacting thumb) hand shapes appear to be continuations of older historical forms that were also present in some older varieties of White signing.

Other variation appears to be primarily synchronic, such as formational (phonological) variation between signs made on the face rather than on the hands.

The paper will also include a discussion of methodological problems (primarily due to attitudes) in gathering the data and observations on the effect of changing educational policy on Black Southern signing. The conclusion will briefly discuss the theoretical and descriptive problems of incorporating this variation into a grammar.

Syntactic Development in an Adult Without Previous Linguistic Competence

This paper will deal with the syntactic development of an adult deaf male who at the age of 39 had no linguistic competence in oral or sign language but who has subsequently begun to develop oral language after receiving a hearing aid. The subject of the research reported here suffers from bilateral profound deafness and was first given a hearing aid in February, 1974. At that time the only words he ever uttered (and presumably understood) were mama, papa, bye and the names of his brothers and sisters. He communicated with his parents and others by means of a gross gesture system. The subject has had no formal schooling, nor has there been any effort to teach him sign language.

Within a month after being fitted with the hearing aid (which brought his hearing threshold in the aided ear to within 10 Db of normal hearing) the subject could comprehend and produce about 25 new words referring mainly to articles of clothing and parts of the body. At this point, however, there was no spontaneous use of language and the subject would only utter a word when the examiner pointed to the referent.

In the beginning the subject used and responded only to words which were accompanied by gestures, but by April he was responding to single word utterances without gestures such as salt (I.e. "Please hand me the salt."). He was also able to comprehend and use the personal pronouns you and me. At this time the subject was also capable of creating 2-word genitive constructions such as Joe's arm, Miss Apple shoe, etc. (There is an interesting parallel to child language in the lack of inflection at this stage.) By August he was repeating SVO constructions such as Joe go town, Apple drive car and he became excited when he spontaneously substituted one subject for another in the pattern sentence.

There are at present several authors (e.g. Curtiss et al, 1973) who question the idea of a critical period for language acquisition as articulated by Lenneberg (1967). We believe the data obtained from our research will justify a reevaluation of the conclusions Lenneberg reached with respect to cerebral dominance and the acquisition of a primary language.
Bilingual Morphology: Gender Assignment in Loanwords

Grammatical gender as a feature of the category noun is marked in some languages, unmarked in others. Nouns loaned by an unmarked language to one that is marked are assigned gender by the speakers of the recipient language. This morphological adaptation is in addition to phonological and any other kinds of changes that affect the word as it goes through the lending process. Research presented throughout this paper seeks to determine factors that rule gender assignment to loan-words.

Loans to Spanish, a marked language, are studied. To achieve a higher degree of accuracy two periods of Spanish are investigated: a) the language of the XVI century in the Spanish colonies in America (in non-literary contexts, from previous research); b) the language of Puerto Rican residents in present day Northeastern United States. Loans for the first period are from unmarked Amerindian languages (Arawak, Caribe, Nahuahtl, and Quechua); loans for the second period are from American English, also an unmarked language. The first period was studied descriptively; the second was studied analytically. The second involved analysis of a paradigm for gender assignment by speakers of the recipient language. Informants were questioned on: a) actual loan-words already incorporated into the language (e.g., draiuei<driveway), b) probable or possible loan-words (e.g., fiter<cheater), and c) English nouns which would not be expected to be loaned, because of the high frequency of usage of the Spanish equivalent (e.g., table). Item a) and partially b) try to elicit an analysis from the informants. Item c) and partially b) search for insights into the automatic assignment of gender to non-learned forms.

Previous assumptions and theories are discussed. Tentative (at the time of writing abstract) conclusions seem to indicate three major reasons for assignment of gender: 1) determination by final phoneme(s), 2) semantic association with an equivalent in the borrowing language, and 3) higher productivity of the masculine gender in Spanish.

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The Relevance of the Subject/non-subject Dichotomy in Determining Causal Relations Between Clauses

In this paper it is observed that under certain conditions when a generic head noun phrase and the relative clause modifying it are discontinuous, the relative clause must bear a causal relation to the main clause. This relation must hold when the head noun phrase is the subject of the main clause but it need not hold when the head noun phrase is not the subject of the main clause. Compare (1) and (2) where the relative clause modifies the subject with (3) and (4), where it modifies the object.

(1) People cannot survive in our modern world who do not earn enough money.
Here the relative clause is in a causal relation to the main clause, but in
(2) ???A house is hard to destroy which has a little red roof, there is no such causal relation and therefore the sentence is not well-formed.
In fact, sentence (2) will only be acceptable under special conditions, e.g., in a world where houses with little red roofs are known to have very strong foundations.
(3) and (4), however, will both be well-formed, even though (3) exemplifies no causal relation between the relative clause and the main clause, whereas
(4) does.

(3) I have been reading books lately that deal with psychology.
(4) The government has been building books lately that deal with sex.

The claim is that this phenomenon cannot be analyzed adequately in terms of linear order alone but rather any attempt to account for it must refer to the
subject/non-subject distinction. For example, in Hebrew and in certain Y-movement dialects of English, non-subject relative clauses, the heads of which were proposed by topicalization, do not bear the causal relation shown in
(1) and (4).

The need to refer to subject vs. non-subject in determining causal relations between clauses is especially interesting in light of recent work by Postal, Perlmutter and Johnson on the role of grammatical relations in linguistic theory. I claim that notions like subject and object are not merely of syntactic relevance, but rather, that these notions are necessary for the determination of the pragmatic-semantic relations between clauses.
The Unity of Contrast, Complementary Distribution, and Free Variation in Semantic Analysis

In determining the meaning of grammatical forms, contrast, complementary distribution, and free variation are treated as fundamentally different cases requiring different approaches to analysis. The contrast of two forms in the same syntactic frame leads to the assignment of different meanings. Complementary distribution, however, is taken to indicate the lack of a semantic distinction. And when two forms are in apparent free variation, i.e. when there is no obvious semantic contrast, the variation is studied in terms of extra-linguistic variables. This paper will show that, at least for one case, contrast, complementary distribution and apparent free variation are syntactic phenomena all deriving from the same underlying semantic system.

In German there is a semantic contrast between the dative and the accusative cases when they appear in the same clause:

1. Bruno schenkte dem Mädchen einen Blumenstrauß. 'Bruno gave the girl (dat) a bouquet (acc).'

The dative (traditionally the "direct object") indicates an entity which is more potent or active in the event than the accusative (traditionally the "direct object"). Minimal contrasts are possible, as in:

2. Werner gab dem Mädchens eine Zeitung. 'Werner gave the girl (dat) a newspaper.'
3. Werner gab das Mädchens Zeitung. 'Werner gave the girl (acc) up' (e.g. broke their engagement).

Dative and accusative are in complementary distribution for a large number of verbs ("case government"). But an analysis of 200 prose contexts in which predicates indicating visual contact appear--such as ansehen and zusehen, dat--show that dative entities as in (1) are consistently more active than accusative entities as in (5):

4. Er machte mir eine Prüfung ihr zusehend, wie sie ihre Mähne bürstete. 'It was a pleasure to watch her (dat) as she brushed her hair.'
5. Sie lägt regungslos mit geschlossenen Augen, und ich sah sie an. 'She lay motionless with her eyes closed, and I watched her (acc).'

In addition, an informant study of 11 predicates indicating 'avoidance' (such as ansehen + acc and aussehen + dat) shows that the dative is consistently preferred for a more potent entity, and the accusative for a less potent entity. Thus the same potency-activity factor which appears in the contrastive contexts (1)-(3) is also evident with complementary distribution.

Finally, (6) and (7) are taken from a connected narrative and describe the same event: Dative and accusative appear to be in free variation:

6. Ich trat ihm mit voller Wucht zwischen die Beine. 'Grund 45'
   'I kicked him (acc) with all my strength between the legs.'
7. Der, dem ich zwischen die Beine getreten hatte, sprang auf mich zu. 'The one whom (dat) I had kicked between the legs jumped at me.' Grund 45

But in (6) more attention is paid to the force of the blow than in (7), reflecting, again, a difference in the potency-activity factor. An analysis of 123 prose contexts of this type confirms that a (sometimes subtle) difference in potency-activity is consistently present.

Thus the 'potency-activity' factor, deriving from a general semantic analysis of the German case system, is shown to be present in instances of contrast, complementary distribution, and apparent free variation of the case forms.
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