# Linguistics

## Academic and Research Staff

Professor Noam A. Chomsky, Professor Emeritus Morris Halle, Professor Emeritus Samuel J. Keyser, Professor Michael Kenstowicz, Professor Alec P. Marantz, Professor Cheryl C. Zoll

## Introduction

The work of the Linguistics group is directed toward a better understanding of the mental capacities of human beings through the study of the nature, acquisition, and use of language. Language is a uniquely human faculty: only humans appear to be capable of learning and using a language, and every normal human acquires knowledge of one or more languages.

We are trying to understand how this linguistic knowledge is represented in the speaker's mind. The central issues of linguistics research are:

(1) What is the nature of linguistic knowledge? (2) What do speakers of a particular language such as Latvian, Spanish or Walpiri know, and how does knowledge of one language resemble or differ from that of another language? (3) How do speakers acquire this knowledge? (4) How do speakers put this knowledge to use in producing and understanding utterances? (5) What are the physiological mechanisms that provide the material basis for storage, acquisition and utilization of linguistic knowledge?

Our ability to answer each of these questions differs considerably, and our research reflects these differences. At present, we have progressed with regard to answering the questions posed by item one and have made less progress with item four. Currently, our research is heavily concentrated on issues concerned with the nature of the knowledge that characterizes fluent speakers of various languages. However, we are making a significant effort to solve the other questions also.

We are studying these topics along a number of parallel lines. Linguists have investigated the principles by which words are concatenated to form meaningful sentences. These principles have been the primary domain of inquiry into the disciplines of syntax and semantics. Phonology studies the sound structure of words while morphology examines the manner in which different languages combine different meaning-bearing units (specifically, stems, prefixes, suffixes and infixes) to form words. The latter topic has attracted increasing interest in recent years and will probably become more prominent in our research efforts in the future.

## Abstracts of Doctoral Dissertations

The following are abstracts of dissertations submitted in 1999 to the Department of Linguistics and Philosophy in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Linguistics.

**Aspects of a Karitiana Grammar**

Luciana R. Sorto

This dissertation is intended as a description of some theoretically interesting aspects of the phonology and syntax of the Karitiana language.  Karitiana is the sole surviving language of the Arikém family (Tupi Stock), spoken today by approximately 200 people living in their own demarcated reservation located 95 km south of Porto Velho, in the state of Rondonia, Brazil.  Chapter 1 describes and analyzes the segmental phonology of the language.  With respect to segmental features, special attention is given to the consonants of the nasal series, which undergo partial oralization in environments contiguous to oral vowels.  I claim that this phenomenon gives support to the hypothesis that nasality must be represented as a binary feature.  Another phenomenon of theoretical interest in Katiana phonology is vocalic epenthesis, which is triggered by syllabification word-internally and by syllabification as well as stress clash avoidance in certain phrasal environments.  I explain the interactions between epenthesis and stress assignment in a derivational model of cyclic phonology.  Chapter 2 describes the pitch accent system of the language, in which tones are assigned to the same metrical plane where stress is computed.  In chapter 3, I show that the language is verb-final and that the verb obligatorily raises to the complementizer position (C) in matrix clauses to check tense and agreement features.  In dependent clauses, the verb is final, and no agreement or tense is present.  I draw a parallel between Karitiana and Germanic verb second languages: in both systems the matrix tensed verb must surface in C, and a phrase must fill Spec,CP.  The latter is only a tendency in Karitiana.  Standard agreement is nominative (absolutive), although whenever the object is A-bar moved to the focus position (Spec,CP) in non-declarative focused clauses, the verb shows ergative agreement.  I argue that the functional morphology inserted as a focus marker deactivates the agreement features of I, the functional head that would normally covertly agree with the ergative subject, and as a result, the other functional head bearing agreement features (C) agrees with the ergative subject.  Chapter 5 describes other instances of non-declarative and declarative focus constructions.

**A Lexographic Study of Ulwa**

Thomas Michael Green

In this thesis, I present the beginnings of a reference grammar and dictionary of the Ulwa language of the Atlantic coast of Nicaragua.  I first describe the current state of the Ulwa language and people in light of their historical and sociolinguistic context.  I then go into some detail regarding the phonological and morphological nature of the language.  Finally I touch on the syntactic and semantic issues that most directly affect the design of a lexical database of the language.  These include discussion of verbal diathesis and the nature of complex multi-word verbal idioms.  The thesis is a lexicographic study because the aim is to present information sufficient for a reasonable understanding of the lexical entries of the language, as represented in the included dictionary.

**Propositional Attitudes and Indexicality:  A Cross-Categorical Approach**

Philippe Schlenker

*Universal Grammar uses the same distinctions (features) and the same interpretive procedures for reference to individuals, times, and possible worlds.* We give a partial argument for this hypothesis: person, tense and (maybe) mood can be treated on a par *when they occur in reported speech.* We consider several generalizations that hold across sortal domains, and develop a theory of propositional attitudes and indexicality that captures these facts, and treats all three categories on a par.

First, we extend the notion of 'Sequence' phenomena from tense to person.  In Russian, the tense of a direct discourse can be preserved in reported speech, but in English tense agreement, i.e., 'Sequence of Tense', must generally hold.  The same contrast exists between English and Amharic pronouns: in Amharic the indexical pronoun of a direct discourse can be retained in reported speech, while in English persn agreement, i.e., 'Sequence of Person', must hold.  Second, we extend the notion of 'Logophoricity' from person to tense.  In Ewe, the indexical pronoun of a direct discourse can only be reported in indirect discourse if a special form is used, one that never occurs outside of attitude environments - a 'logophoric pronoun'.  But logophoric tense/mood also exists, and is instantiated by one of the subjunctive forms that exist in modern German (the 'Konjunktiv I').  Third, we observe that both tense and person display the same idiosyncratic behavior in Free Indirect Discourse - an interesting fact given that other indexical elements pattern differently.  Finally, we speculate that the notion of Obviation can be extended from person to tense, and suggest that English past tenses are the temporal counterpart of obviative person markers in Algonquian.

Our main auxiliary assumption is that attitude operators are quantifiers over context of speech/thought, which allows an indexical expression to be evaluated with respect to the context of a *reported* speech act, and thus to be shifted.  Every attitude operator is thus a Kaplanian 'monster', and shifted indexicals are analyzed as a morphological variant of De Se pronouns.  Logical forms are assumed to be uniform across languages, with morphology as the only source of cross-linguistic variation.

**Elements of Control**

Idan Landau

How many different types of control relations exist?  Is the classical distinction between Obligatory Control (OC) and Non-Obligatory Control (NOC) well-founded?  What semantic and syntactic properties of infinitives determine their place in the control typology?  How is the "understood subject" PRO linked to the controller?

This thesis investigates these questions in two steps:  First, we establish a *typology* of control and characterize the empirical profile of each type; second, we propose *mechanisms* of derivation and interpretation to account for the different types.

The OC category is shown to consist of two subtypes, Exhaustive Control (EC) and Partial Control (PC).  Tense in EC complements is null, and PRO must be referentially identical to the controller; Tense in PC complements is contentful, and PRO need only include the controller (although matching in syntactic number is still required).  OC establishes an <u>Agree</u> relation between a matrix functional head and either PRO (in EC) or the infinitival Agr (in PC).  The latter is parasitic on T-to-C movemetn occurring in tensed complements.  Control via Agr blocks the transmission of semantic number from the controller to PRO, giving rise to the PC effect.

The OC/NOC distinction is traced to the position of the infinitive:  VP-internal clauses fall under OC, extraposed and intraposed clauses under NOC - a corollary of the CED, which contrains <u>Agree</u>.  Extraposed clauses may be interpreted and pronounced in different position - a claim that is supported by asymmetries between psych and non-psych predicates in Super-Equi constructions.  Converging evidence from extraction confirms that infinitives displaying OC and those displaying NOC occupy differen positions at LF although the same position at PF.

As for the interpretation of OC, the choice of controller is subject to complex semantic/pragmatic considerations, rather than some syntactic locality principle.  We also argue that OC cannot be reduced to predication, at least in the domain of adjectival complementation.  Systematic contrasts between subject-gap and object-gap infinitives show that the former may denote either propositions (when occurring as arguments) or predicates (when occurring as modifiers).  Thus, two sources exist for subject gaps - PRO (universally available) or A-bar trace (language-particular).

**Case, Agreement and Word Order: Issues in the Syntax and Acquisition of Tamil**

Vaijayanthi M. Sarma

This dissertation focuses on the syntax of Tamil, a Dravidian language.  The main issues discussed in the dissertation may be broadly classified into (a) those concerning the TP-internal structure and (b) those concerning the TP-external structure.  The aim is to provide as complete an account as possible of the syntactic issues under consideration in both adult syntax and developmental syntax.

With respect to the TP-internal structure, the case and agreement properties in the syntax of Tamil are indicated in a wide variety of constructions, including finite (nominative and dative subjects, imperatives) and non-finite (verbal participles, infinitivals) sentences, and the theoretical processes necessary for the assignment of case and the determining of verb agreement are established.  Evidence is given for the TP-internal positions of the various agrument DPs, including diagnostic tests for subjects and (especially, nominative) objects.  Agreement facts and the relations between DPs and V are discussed with special emphasis on nominative object and V agreement and null case PRO and V without agreement.  Anaphoric binding is shown to be parasitic on the agreement domain.  The discussion is completed with an analysis of the auxiliary system , arguing for head movement of the V and an iterative $v$P structure.

The TP-external structure concerns the re-ordering of phrasal constituents, locally and long-distance.  It is shown that Tamil is a configurational language which exhibits long-distance and

local extraction to A-bar positions targeting the same sites as independent clefting and topicalization procedures in the language. Consequently, word order changes are shown to have specific syntactic and semantic consequences. It is also argued that Tamil shows symmetric rightward and leftward extraction procedures.

It is established from the analysis of the syntactic structures and natural speech data that developmental syntax approximates adult syntax in all aspects. Children acquiring Tamil are shown to make productive and extensive use of case and agreement (including default agreement) forms. Additional evidence to show that the entire range of TP-internal and TP-external processes are in place is drawn from the use of *pro*, imperatives, non-finite verbs (including verb participles and infinitivals), reflexives, serial verbs, NP extraction and case-drop phenomena. The syntactic structuring and processes are argued to be identical in both grammars.

**Split Noun Phrases and the Theory of Case**

Marie Claude Boivin

This dissertation is concerned with two puzzles in the syntax of French noun phrases. I first examine the distribution of the subnominal clitic pronoun *en*. I argue that Case theory is the module of the grammar responsible for the well-known contrast in grammaticality between genitive *en* and quantitative *en* when they appear with derived (raised) subjects of unaccusative verbs. I argue that Case is a feature of the nominal head of a DP. Extraction of the nominal head by quantitative *en* creates a DP remnant which is incapable of checking Case, since it lacks the necessary feature. Genitive *en* does not extract the nominal head, and its remnant contains a Case feature. I show that Case theory makes the correct predictions regarding the distribution of genitive *en* and quantitative *en* in a large number of contexts, many of which were problematic for previous accounts in terms of Binding Theory or the Empty Category Principle (ECP). The Case theoretical approach also predicts the Definiteness Restriction on the extraction of quantitative *en*, as well as the obligatory narrow scope of its remnant. The second puzzle is provided by Quantification at a Distance (QAD) in French. I argue that also in this case the subject/object asymmetry observed with remnants is to be explained by Case theory. QAD remnants are deficient noun phrases and are not eligible candidates for Case Checking in the specifier of a functional projection. I show how a Case theoretical approach to QAD predicts the obligatory narrow scope of QAD remnants as well as the fact that only weak determiners are members of the *beaucoup* class. I propose that there are three ways of Checking Case: head movement of N, head movement of D preceded by feature movement of the Case feature to D, and DP movement. Finally I show that the analysis of *en* cliticization and QAD can be used to shed light on the position of subjects in Stylistic Inversion contexts. More generally the thesis is a contribution to the theory of feature checking, and provides a new approach to problems usually attributed to the ECP.