# Section 4    Linguistics

## Chapter 1  Linguistics

# Chapter 1. Linguistics

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## 1.1 Introduction

The work of the Linguistics group is directed towards 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? 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?

2. How do speakers acquire this knowledge?

3. How do speakers put this knowledge to use in producing and understanding utterances?

4. What are the physiological mechanisms that provide the material basis for storage, acquisition and utilization of linguistic knowledge?

Our ability to answer these questions differs considerably, and our research reflects these differences. At present, we have progressed further 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.

## 1.2 Abstracts of Doctoral Dissertations

The following are abstracts of dissertations submitted in 1995 to the Department of Linguistics and Philosophy in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Linguistics.

### 1.2.1 Null Subjects

Maria do Pilar Pereira Barbosa

***Abstract***

The goal of this thesis is to isolate the properties that characterize the languages that show a correlation between the possibility of dropping a subject and rich subject agreement morphology. I will propose an articulated structure for TP, which is meant to reflect, in binary terms, the relation established among the Speech time, the Reference time and the Event time, the basic primitives of tense in Reichenbachian theories of tense. I will suggest that TP is broken up into a projection of "Tense relative to the Event time" ($T_E$) and a projection of "Tense relative to the Speech time" ($T_S$). The former corresponds to the standard IP and is the locus of the Extended Projection Principle. Spec-$T_S$ is an A'-position. In subordinate clauses, $TP_S$ is selected by C. I will argue that the Null Subject Property is the result of the combination of the following two properties: overt V-to-$T_E$-to-$T_S$ raising and a sufficiently rich bundle of nominal agreement features capable of checking off the Nominative Case feature of $T_E$ and the EPP. The configuration of c-command established between the bundle of nominal features in $T_S$ and an empty D in Spec-$T_E$ will be argued to be essential to the Null Subject Property. Overt V-to-$T_E$-to-$T_S$ raising will also be argued to be a property of a standard VSO language such as Irish. The differences between Irish and null subject Romance with respect to word

order will follow from the fact that Irish has no agreement inflection. $T_E$ raising to $T_S$ accompanied by subject raising to Spec-$T_E$P yields VSO order.

## 1.2.2 Morphosyntax: the Syntax of Verbal Inflection

Jonathan David Bobaljik

### Abstract

This thesis investigates the interaction of the morphological process of verbal inflection with the syntactic process of verb movement and the distribution of the principal arguments.

In part I it is proposed that two apparently syntactic phenomena in the Germanic languages are accounted for by allowing the morphological component to filter syntactic derivations. First (chapter 1), it is proposed that the parametric variation in the licensing of the specifier of TP (an intermediate functional projection) can be derived from the verbal inflectional paradigms; certain morphological patterns require fusion, a requirement which in turn places restrictions on possible syntactic derivations. In Chapter 2 it is proposed that verbal inflection may take place via *morphological merger*, which requires *adjacency*. Syntactic operations which would disrupt the adjacency relation in the morphology are therefore blocked.

In part 2 the assumptions, common in the literature, which underlie the syntactic analyses in part I are reconsidered. In particular it is argued in chapter 3 that the base and derived positions of the principal arguments are stacked; that is, objects do not cross over subjects in moving to their derived position. In chapter 4 the view that floating quantifiers mark the positions of traces of their antecedents is challenged.

Part 3 attempts to salvage and extend the accounts of part 1 in light of the revised assumptions proposed in part 2. In chapter 5, I introduce the *Free Agr Parameter*, which states that languages vary with regard to the presence or absence of Agr-Phrases. The specifiers of Agr-Phrases are the derived positions for arguments as evidenced by object shift and other phenomena. It is also proposed that the presence or absence of an Agr head dominating Infl determines whether or not the verb raises out of the VP in nonverb-second environments, correctly predicting a further point of parametric variation in the Germanic languages. Chapter 6 investigates the possibility of pursuing these analyses while maintaining that the syntactic derivation cannot be filtered by the morphophonological component(s). It is argued that this is possible, if the grammar admits of a process determining which copy of a moved element is pronounced. The morphological procedure determining which copy is pronounced is constrained by other morphological considerations, especially the adjacency condition on morphological merger investigated in chapter 2.

## 1.2.3 Nonverbal Predication and Head-Movement

Andrew Hay Carnie

### Abstract

This thesis surveys the interaction between nonverbal predication in matrix clauses and processes of head-movement. Focusing mainly on the syntax of Modern Irish nominal predicates, it is claimed that matrix nonverbal predication can occur without any verbal support. When this happens, nonverbal predicates bear inflectional features directly and behave just like verbs with respect to processes of head-movement. In particular, it is claimed that nonverbal predicates raise through the inflectional complex to the highest inflectional head, just like verbal predicates in matrix VSO clauses.

It is also claimed that complex phrasal predicates are allowed to undergo head-movement, contra many standard assumptions. A new theory of phrase structure is proposed, where phrasal status (i.e., X-bar status) Is determined by behavior of the phrase-marker involved, rather than the status determining the behavior. This derived notion of X-bar status is shown to account for a variety of phenomena from a variety of languages (such as construct state nominals in Celtic and Tagalong clitic placement).

The thesis also argues that the distribution of word order types from Irish copular clauses argues against a unified or single *be* analysis. It is claimed that at least two types of copular construction: a one placed predicative construction, and a two placed equative construction are present in the grammar. Structural asymmetries between the two arguments in equative constructions are shown to follow from their behavior with respect to theta marking.

Finally, a new analysis of Verb-Subject-Object (VSO) order is presented which accounts for a wide variety of phenomena, including nonverbal predicates, in the syntax of Modern Irish. This analysis makes use of verb raising, a split VP structure, and a new view of clausal architecture.

## 1.2.4 Indefinite Topics

Diana Cresti

*Abstract*

In this dissertation I investigate the phenomenon of what have come to be known as "specific" indefinites.

The atypical scope- and discourse-related properties of this kind of noun phrases have led researchers to posit a variety of recent analyses. I show that nothing special needs to be said about specific indefinites once we assume a pre-dynamic model of natural language which takes as a starting point the proposals of Kamp (1981) and Heim (1982) that indefinites are not inherently quantificational.

One core assumption of this dissertation is that indefinites that are interpreted as specific (or that otherwise exhibit atypical scopal properties) are always topic marked in the sense of von Fintel (1994) (but see also Diesing 1991). The phenomenon of topic marking is quite independent of specific indefinites and is generally the cause of existence presuppositions associated with quantificational noun phrases—which are argued not to be intrinsically presuppositional.

The presuppositions associated with topic marking are shown to follow the same projection patterns as standard presuppositional expressions; thus the semantic and pragmatic properties of specific indefinites are expected to exhibit a parallel behavior with respect to, e.g., presuppositions of the kind generated by definite noun phrases. The model proposed thus subsumes the apparently puzzling scope-taking options of indefinites under an independently available theory of syntax, semantics, and pragmatics. No recourse to task-specific devices is assumed.

The model proposed assumes a maximally constrained theory of syntax. Thus it is compatible with theories which assume the clause-boundedness of quantifier raising, including those models which assume that there is no independently occurring quantifier raising operation.

## 1.2.5 Subjects, Events and Licensing

Heidi Britton Harley

*Abstract*

While the notion of "subject" as a primitive of grammar is in some way encoded in most modern syntactic theories, the cluster of syntactic properties attributed to subjects is not a homogenous one. This thesis aims to precisely characterize certain of these properties, partially through an investigation of constructions where they fail to converge.

Two of these properties are of particular interest. First, the structural properties associated with "external arguments" are examined; that is, the question of where thematic subjects (as opposed to clausal subjects) are base-generated. Drawing on evidence from Japanese lexical causatives, a "split-VP" structure is argued for, in which external arguments (Agents, Causers) are generated in the specifier of a projection which marks the introduction of an event argument (hence termed EventP). Below EventP are case-checking positions for underlying objects and indirect objects (internal arguments) as well as the projection in which internal arguments are base-generated ("BaseP"). "Verbs" on this approach consist of a "Base" head in combination with an "Event" head, and the decomposition of verbal meaning into "primitives" such as CAUSE, HAVE or BE is assumed. In support, a correlation is drawn between the existence of the predicate "have" in a language and the possibility of a double object/double complement alternation, adducing evidence from Irish, Tagalog, and Diné, as well as Japanese, Georgian and English.

Secondly, the question of morphological nominative case is considered. Nominative marking on an NP is typically taken to be an indicator of subjecthood, nonetheless, there are constructions in which a nominative-marked argument appears to be in object position. Such nominative objects in Icelandic are examined in detail, and a mechanism for assigning, morphological case is proposed which modifies standard assumptions about the strict connection of morphological case with structural position. Given such modification, the question of NP-licensing, is re-examined, with an eye to dispensing with abstract case entirely, the apparent effects of abstract case assignment (and, incidentally, Buzio's Generalization) are seen to be the result of the interaction of the mechanism governing morphological case assignment with the Extended Projection Principle.

## 1.2.6 Phrase Structure in Minimalist Syntax

Masatoshi Koizumi

### Abstract

This thesis is a study of clause architecture within a theory of generative grammar. It discusses four major syntactic hypotheses that have crucial bearing on the design of phrase structure: the Agreement-based Case theory, the internal subject hypothesis (ISH), the uniform three-level X-bar theory, and a hypothesis about string vacuous head movement.

In chapters 2 through 4, I discuss object positions in three typologically and genetically different languages, i.e., English, Zarma, and Japanese, and argue that they all possess Object Agreement Phrases (A GRoP). A consideration of learnability suggests that the presence of A GRoP in these languages, particularly in Japanese, is not learnable from the data available to children. Thus, it is highly likely that UG is so construed that every language has AGR (the universal AGR hypothesis).

In chapter 5, I turn to subject positions. There is conflicting evidence regarding the base-position of the external argument. Some data indicate that the external argument originates in a position lower than its surface position, as is expected under the internal subject hypothesis. Other data suggest that the base-position of the external argument is outside the A GRoP and the VP that dominates the main verb and the internal arguments. If the ISH is correct in that all arguments of a predicate category (e.g., V) originate within the maximal projection of this category, then the apparently contradicting data suggest that there are two verbs, hence two VPs, in a single clause (the split VP hypothesis). One verb is above A GRoP, and the other is below A GRoP. The so-called external argument is an argument of the upper V, and "internal arguments" are arguments of the lower V.

Chapter 6 is concerned with X-bar theory. I argue, contrary to the wide held view, that some functional categories allow more than one specifier position within their projections (layered specifiers), and that the number of specifiers is different across categories. If this is correct, the X-bar schema as such cannot be a part of Universal Grammar, as already suggested in Fukui (1986) and others. Our claim, however, is crucially different from Fukui's (1986) in that the specifiers of functional categories do not necessarily (but sometimes do) "close off" their projections.

In chapter 7, I discuss string vacuous verb raising in head final languages. In particular, I present evidence that verbs in Japanese raise out of the VP in overt syntax. Its consequences are also explored to various aspects of syntactic theory such as the Proper Binding Condition, Kayne's (1994) Linear Correspondence Axiom, etc.

## 1.2.7 On the Temporal Interpretation of Noun Phrases

Renate Musan

### Abstract

This thesis investigates the temporal interpretation of noun phrases. The leading questions throughout are the following: (1) Is the temporal interpretation of a noun phrase determined by the temporal interpretation of the rest of its clause? (2) What kind of further interactions take place between the interpretation of noun phrases and the temporal interpretation of the main predicate of a clause? The framework in which these questions are answered exploits an ontology that assumes individuals, stages of individuals, and kinds as basic entities. Determiner-quantification is argued to be quantification over stages of individuals rather than individuals in their whole temporal extendedness.

Chapter 1 provides a survey of the main topics of this thesis. It is argued that an account of the temporal interpretation of noun phrases must investigate at least two issues that are to be distinguished: the temporal location of individuals and the temporal location of predication times.

In chapter 2, the temporal location of individuals is explained as an effect of life-time presuppositions that are introduced by the lexical semantics of stage-level predicates and individual-level predicates, but not by a third type of predicate, existence-independent predicates. Life-time effects associated with individual-level predicates are captured as a pragmatic phenomenon in terms of Grice's Maxim of Informativity and related implicatures. In temporally specific contexts, life-time effects are neutralized. This is related to certain effects that topic-focus structure has on temporal interpretation.

Chapter 3 explains the temporal location of predication times associated with noun phrases. In contrast to previous research, it is argued that the temporal location of predication times of nouns depends on the temporal interpretation of the rest of the clause. The notions of "temporally dependent" and "temporally independent" noun phrases

are introduced. It is shown that the distribution of temporally dependent and temporally independent noun phrases involves the distinction between weak (or cardinal) and strong (or presuppositional) noun phrases as well as the distinction between existence-independent arguments and other arguments. This distribution is explained as a consequence of (1) determiner-quantification being analyzed as quantification over stages of individuals, (2) independently motivated mechanisms of implicit quantifier restriction, and (3) a particular account of weak and strong determiners. This account analyzes both types of determiners as restrictive quantifiers, and attributes differences between them to whether the noun is mapped at LF into the restrictive clause or into the nuclear scope of the determiner. The mechanisms introduced in this chapter are also applied to generic noun phrases, certain kind-denoting noun phrases, and to the distinction between object-related readings and event-related readings.

Chapter 4 deals with the semantics of certain types of noun phrase internal temporal modifiers, *in*-modifiers and *of*-modifiers. It is argued that *in*-modifiers are obligatory restrictors of quantifiers. Moreover, they impose constraints on the tense interpretation of their clause by activating the Upper Limit Constraint, which has also been used to explain certain aspects of the behavior of sequence-of-tense constructions and double-access constructions.

Chapter 5 offers a summary of results achieved in the preceding chapters and suggestions for future research.

## 1.2.8 Phonological Phrases: Their Relation to Syntax, Focus, and Prominence

Hubert Truckenbrodt

### Abstract

This thesis investigates how phonological phrases are related to the syntactic representation, to focus, and to the representation of prominence. The proposal that is defended here is that among the three relevant basic entities represented by the grammar, syntactic constituency, prosodic constituency, and prominence, the grammar places a simple demand on each pair: (1) Syntactic phrases must be contained in phonological phrases. (2) Phonological phrases must have edgemost phrasal prominence. (3) Syntactic phrases must contain phrasal prominence. These demands are taken to interact with one another as ranked and violable constraints, where variation among languages is expressed in terms of constraint reranking. Each relation is argued for separately. The effects of (1) (previously described as the role of government in phonological phrasing) are investigated on patterns of phrasing in the three Bantu languages Chi Mwi:ni, Chichewa, and Kimatuumbi. The effects of (2), it is argued, can be seen most clearly in the effects of focus on phrasing, where Chichewa and Japanese will be discussed as examples. The effects of (3), finally, which have been discussed in different contexts as either a directionality parameter or the role of depth of embedding in the assignment of stress, will be argued to have desirable typological consequences that set (3) apart from some of its competitors. Jointly the constraints will be seen to derive an end-based typology of the kind familiar from work by Lisa Selkirk.