

Syntax

A Generative Introduction
Second edition



Andrew Carnie

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Dedicated with love to my parents, Robert and Jean and in
memory of my teacher and mentor, Ken Hale

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Preface and Acknowledgments

Almost every preface to every syntax textbook out there starts out by telling the reader how different this book is from every other syntax textbook. On one hand, this is often the truth: each author shows their own particular spin or emphasis. This is certainly true of this textbook. For example, you'll be hard pressed to find another textbook on Principles and Parameters syntax that uses as many Irish examples as this one does. Nor will you find another P&P textbook with a supplementary discussion of alternative theoretical approaches like LFG or HPSG. On the other hand, let's face facts. The basic material to be covered in an introductory textbook doesn't really vary much. One linguist may prefer a little more on binding theory, and a little less on control, etc. In this text, I've attempted to provide a relatively balanced presentation of most of the major issues and I've tried to do this in a student-friendly way. I've occasionally abstracted away from some of the thornier controversies, where I felt they weren't crucial to a student understanding the basics. This may, to a certain extent, make the professional syntactician feel that I've cut corners or laid out too rosy a picture. I did this on purpose, however, to give students a chance to absorb the fundamentals before challenging the issues. This is a textbook, not a scholarly tome, so its aim is to reach as many students as possible. The style is deliberately low key and friendly. This doesn't mean I don't want the students to challenge the material I've presented here. Throughout the book, you'll find gray "textboxes" that contain issues for further discussion, or interesting tidbits. Many of the problem sets also invite the student to challenge the black and white presentation I've given in the text. I encourage instructors to assign these, and students to do them, as they form an

important part of the textbook. Instructors may note that if a favorite topic is not dealt with in the body of the text, a problem set may very well treat the question.

A quick word on the level of this textbook: This book is intended as an introduction to syntactic theory. It takes the student through most of the major issues in Principles and Parameters, from tree drawing to constraints on movement. While this book is written as an introduction, some students have reported it to be challenging. I use this text in my upper division undergraduate introduction to syntax with success, but I can certainly see it being used in more advanced classes. I hope instructors will flesh out the book, and walk their students through some of the thornier issues.

This textbook has grown out of my lecture notes for my own classes. Needless to say, the form and shape of these notes have been influenced in terms of choice of material and presentation by the textbooks my own students have used. While the book you are reading is entirely my fault, it does owe a particular intellectual debt to the following three textbooks, which I have used in teaching at various times:

Cowper, Elizabeth (1992) *A Concise Introduction to Syntactic Theory: The Government and Binding Approach*. Chicago: Chicago University Press.

Haegeman, Liliane (1994) *Introduction to Government and Binding Theory* (2nd edition). Oxford: Blackwell.

Radford, Andrew (1988) *Transformational Grammar: A First Course*. Cambridge: Cambridge University Press.

I'd like to thank the authors of these books for breaking ground in presenting a complicated and integrated theory to the beginner. Writing this book has given me new appreciation for the difficulty of this task and their presentation of the material has undoubtedly influenced mine.

Sadly, during the final stages of putting the first edition of this text together, my dissertation director, teacher, mentor, and academic hero, Ken Hale passed away after a long illness. Ken always pushed the idea that theoretical syntax is best informed by cross-linguistic research; while at the same time, the accurate documentation of languages requires a sophisticated understanding of grammatical theory. These were important lessons that I learned from Ken and I hope students will glean the significance of both by reading this text. While I was writing this book (and much other work) Ken gave me many comments and his unfettered support. He was a great man and I will miss him terribly.

This, the second edition of this book, is considerably different from the first edition. Here is a brief list of the major differences between the two editions. This list is not comprehensive, many more minor differences can be found.

- The exercise sections of the chapters are now organized differently and are greatly expanded. Exercises are presented in the order that the material appears in the chapter. I have attempted to categorize each exercise for level and type.
- There are two types of problem sets: General and Challenge. These two types roughly correspond to the exercises that I assign to my regular students and my honors students respectively. Challenge Problem Sets often challenge the straightforward presentation of the material in the main body of the text.
- The former chapter 2 on structure and parts of speech has been split into two chapters. The new chapter 2 contains new information on subcategorization that some instructors requested to better inform students about the role of part of speech in phrase structure processes. Also Adjectives are now distinguished from Adverbs.

- The phrase structure rules in the new chapter 3 have been completely revised. In particular, I'm using non-X-bar versions of TP and CP here, and have added embedded clauses to all the relevant rules.
- The definitions of precedence, exhaustive domination and c-command have all been significantly revised in the chapter on structural relations. A limited version of government is given for those instructors who wish to teach it to their students.
- The chapters on X-bar theory have many more trees and examples.
- DPs are used consistently from chapter 7 forward.
- I have added categories to the theta grids in the chapter on the Lexicon in order to tie them to the subcategories introduced in chapter 2.
- A new section on stacked VPs and affix-hopping has been added to the chapter on head movement
- VP-internal subjects are used consistently from chapter 9 forward
- The treatment of passives in chapter 10 is completely different from the previous edition. I have moved towards a Baker, Johnson and Roberts style approach where the *-en* morphology is directly assigned the internal theta role and accusative case by the verb in the syntax rather than in the lexicon.
- The treatment of locality conditions in the chapter on *wh*-movement is entirely new. I've dropped subjacency in favor of an MLC based approach. The chapter now includes an inventory of the major island types; but theoretical coverage is only given to *wh*-islands. (Although the chapter also contains a brief discussion of the Head-Movement Constraint and Super-raising in the context of the MLC).
- Chapter 12 now contains a more accurate discussion of *wh*-in situ and develops the ideas of feature checking, covert movement, and SPELLOUT.

- There is a brand new chapter on split VPs in a brand new section on “advanced topics,” including sections on object shift, ditransitives, a Lasnik style analysis of Pseudogapping and a Hornstein style analysis of ACD.
- The chapter on Raising and Control has been moved to the new part of the book on advanced topics, and uses a split VP (vP-AgrOP-VP) structure to avoid ternary branching.
- There is a new chapter on advanced topics in binding theory. This looks at issues on level of representation, chains and the copy theory of movement. It also takes a relativized view of binding domain consistent with Chomsky (1986).
- I’ve taken some of the more controversial “comparing theories” language out of the chapters on LFG and HPSG.

I hope that instructors and students will find these revisions helpful. I have attempted where possible to take into account all the many comments and suggestions I received from people using the first edition. Although of course in order to maintain consistency, I was unable to do them all.

Acknowledgements:

I’d like to thank the many people who taught me syntax through the years: Barb Brunson, Noam Chomsky, Elizabeth Cowper, Ken Hale, Alec Marantz, Diane Massam, Jim McCloskey, Shigeru Miyagawa, and David Pesetsky. A number of people have read through this book or the previous edition and have given me extensive and helpful comments: William Alexander, Ash Asudeh, Brett Baker, Andy Barss, Mark Baltin, Luis Barragan, Emily Bender, Abbas Benmamoun, Joan Bresnan, Dirk Bury, Roy Chan, Danny Chen, Deborah Chen Pichler, Barbara Citko, Peter Cole, Lorenzo Demery, Sheila Dooley, Yehuda Falk, Leslie Ford,

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Harley, Eloise Jelinek, Simin Karimi, Diane Ohala, Adam Ussishkin, and Andy Wedel deserve special mention. Ada Brunstein, Sarah Coleman, Lisa Eaton, Simon Eckley, Tami Kaplan, Becky Kennison, Anna Oxbury, Rhonda Pearce, Beth Remmes, and Steve Smith of Blackwell all deserve many thanks for encouraging me to write this and the previous edition up, and then smoothing its way towards production. My family (Jean, Bob, Morag, Fiona, Pangur and Calvin) were all incredible in their support and love. Go raibh maith agaibh!

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Part 1

Preliminaries

Chapter 1

Generative Grammar

0. PRELIMINARIES

Although we use it every day, and although we all have strong opinions about its proper form and appropriate use, we rarely stop to think about the wonder of language. So-called language “experts” like William Safire tell us about the misuse of *hopefully* or lecture us about the origins of the word *boondoggle*, but surprisingly, they never get at the true wonder of language: how it actually works. Think about it for a minute; you are reading this and understanding it but you have no conscious knowledge of how you are doing it. The study of this mystery is the science of linguistics. This book is about one aspect of how language works – how sentences are structured: ***syntax***.

Language is a psychological or cognitive property of humans. That is, there is some set of neurons in my head firing madly away that allows me to sit here and produce this set of letters, and there is some other set of neurons in your head firing away that allows you to translate these squiggles into coherent ideas and thoughts. There are several subsystems at work here. If you were listening to me speak, I would be producing sound waves with my vocal cords and articulating particular speech sounds with my tongue, lips, and vocal cords. On the other end of things you’d be hearing those sound waves and translating them into speech sounds using your auditory apparatus. The study of the acoustics and articulation of speech is called

phonetics. Once you've translated the waves of sound into mental representations of speech sounds, you analyze them into syllables and pattern them appropriately. For example, speakers of English know that the made-up word *bluve* is a possible word of English, but the word *bnuck* is not. This is part of the science called ***phonology***. Then you take these groups of sounds and organize them into meaningful units (called morphemes) and words. For example, the word *dancer* is made up of two meaningful bits: *dance* and the suffix *-er*. The study of this level of Language is called ***morphology***. Next you organize the words into phrases and sentences. ***Syntax*** is the cover term for studies of this level of Language. Finally, you take the sentences and phrases you hear and translate them into thoughts and ideas. This last step is what we refer to as the ***semantic*** level of Language.

Syntax, then, studies the level of Language that lies between words and the meaning of utterances: sentences. It is the level that mediates between sounds that someone produces (organized into words) and what they intended to say.

Perhaps one of the truly amazing aspects of the study of Language is not the origins of the word *demerit*, or how to properly punctuate a quote inside parentheses, or how kids have, like, destroyed the English language, eh? Instead it's the question of how we subconsciously get from sounds to meaning. This is the study of syntax.

Language vs. language

When I utter the term *language*, most people immediately think of some particular language such as English, French, or KiSwahili. But this is not the way linguists use the term; when linguists talk about **Language** (or i-language), they are generally talking about the *ability* of humans to speak any (particular) language. Some people (most notably Noam Chomsky) also call this the **Human Language Capacity**. Language (written with a capital L) is the part of the mind or brain that allows you to speak, whereas **language** (with a lower case l) (also known as e-language) is an instantiation of this ability (like French or English). In this book we'll be using language as our primary data, but we'll be trying to come up with a model of Language.

1. SYNTAX AS A COGNITIVE SCIENCE

Cognitive science is a cover term for a group of disciplines that all aim for the same goal: describing and explaining human beings' ability to think (or more particularly, to think about abstract notions like subatomic particles, the possibility of life on other planets or even how many angels can fit on the head of a pin, etc.). One thing that distinguishes us from other animals, even relatively smart ones like chimps and elephants, is our ability to use productive, combinatory Language. Language plays an important role in how we think about abstract notions, or, at the very least, Language appears to be structured in such a way that it allows us to express abstract notions.¹ The

discipline of linguistics, along with psychology, philosophy, and computer science, thus forms an important subdiscipline within cognitive science. Sentences are how we get at expressing abstract thought processes, so the study of syntax is an important foundation stone for understanding how we communicate and interact with each other as humans.

2. MODELING SYNTAX

The dominant theory of syntax is due to Noam Chomsky and his colleagues, starting in the mid 1950s and continuing to this day. This theory, which has had many different names through its development (Transformational Grammar (TG), Transformational Generative Grammar, Standard Theory, Extended Standard Theory, Government and Binding Theory (GB), Principles and Parameters approach (P&P) and Minimalism (MP)), is often given the blanket name ***Generative Grammar***. A number of alternate theories of syntax have also branched off of this research program; these include Lexical-Functional Grammar (LFG) and Head-Driven Phrase Structure Grammar (HPSG). These are also considered part of generative grammar; but we won't cover them extensively in this book, except in chapters 16 and 17. The particular version of generative grammar that we will mostly look at here is roughly the ***Principles and Parameters*** approach, although we will occasionally stray from this into the more recent version called ***Minimalism***.

The underlying thesis of generative grammar is that sentences are generated by a subconscious set of procedures (like computer programs). These procedures are part of our minds (or of our cognitive abilities if you prefer). The goal of syntactic theory is to model these procedures. In other words, we are trying to figure out what we subconsciously know about the syntax of our language.

In generative grammar, the means for modeling these procedures is through a set of formal grammatical **rules**. Note that these rules are nothing like the rules of grammar you might have learned in school. These rules don't tell you how to properly punctuate a sentence or not to split an infinitive. Instead, they tell you the order in which to put your words (in English, for example, we put the subject of a sentence before its verb; this is the kind of information encoded in generative rules). These rules are thought to generate the sentences of a language, hence the name *generative* grammar. You can think of these rules as being like the command lines in a computer program. They tell you step by step how to put together words into a sentence. We'll look at precise examples of these rules in the next chapter. But before we can get into the nitty-gritty of sentence structure, let's look at some of the underlying assumptions of generative grammar.

Noam Chomsky

Avram Noam Chomsky was born on the 7th of December 1928, in Philadelphia. His father was a Hebrew grammarian and his mother a teacher. Chomsky got his Ph.D. from the University of Pennsylvania, where he studied linguistics under Zellig Harris. He took a position in machine translation and language teaching at the Massachusetts Institute of Technology. Eventually his ideas about the structure of language transformed the field of linguistics. Reviled by some and admired by others, Chomsky's ideas have laid the groundwork for the discipline of linguistics, and have been very influential in computer science, and philosophy.

Chomsky is also one of the leading intellectuals in the anarchist socialist movement. His political writings about the media and political injustice have profoundly influenced many. Chomsky is among the most quoted authors in the world (among the top ten and the only living person on the list).

3. SYNTAX AS SCIENCE - THE SCIENTIFIC METHOD

To many people the study of language properly belongs in the domain of the humanities. That is, the study of language is all about the beauty of its usage in fine (and not so fine) literature. However, there is no particular reason, other than our biases, that the study of language should be confined to a humanistic approach. It is also possible to approach the study of language from a scientific perspective; this is the domain of linguistics. People who study literature often