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# CORE SYNTAX

A Minimalist Approach



David Adger

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## Preface

Core syntax is a somewhat cheeky name for a textbook. There are many 'core' aspects of syntax, depending on the viewpoint you take. In this book, I have tried to highlight three aspects. Many working syntacticians will disagree that these are *the* core areas, but I hope that everyone will agree that they at least provide a consistent perspective.

First, I have tried to emphasize that an important part of doing syntax is constructing a consistent theoretical system within a broad research agenda. The research framework that I have adopted is that of the Minimalist Program, a perspective that has emerged from the work of Noam Chomsky. In the book, I develop certain theoretical ideas which stem from the concerns articulated by Chomsky, and I use these ideas to build a system. I have tried to make the system as consistent (both conceptually and notationally) as I can, and I have tried to emphasize the interactions between theory, analysis, and data, and how developments in any one of these areas affect the others.

The second way in which the material of the book could be considered 'core' is that I have tried to cover a broad range of phenomena which form a (somewhat nebulous) area of empirical importance as far as the recent history of the subject is concerned. These phenomena have also been chosen because they can be used to motivate or to challenge the theoretical ideas that are being developed. I hope that by doing this, students will acquire both an overview of some important areas of empirical concern, and an appreciation of how syntactic arguments are developed.

The third aspect on which I have concentrated is methodological, and it has to do with the importance of rigour in helping to clarify ideas, and the concomitant importance of formalization as a skill which will help students to think through syntactic questions. The strictly derivational approach I have adopted, and the explicit presentation of how derivations are constructed, should help students to learn to be comfortable with some of the formal aspects of syntactic theory.

I hope that the book's emphasis on these three aims will mean that it will outlive the details of current theoretical fashion. The particulars of the theory will certainly change, but the kinds of syntactic argumentation deployed in the field and the importance of rigour and consistency will surely

remain, as will, I think, the kinds of questions raised by the research agenda adopted here.

Aside from these three aims, I have also tried to tease out how a theory based on invariant syntactic principles, interacting with the parameterization of featural properties of functional heads, really does provide at least one answer to the Poverty of the Stimulus questions raised by Chomsky. The sections in the chapters which concentrate on this aspect of syntax also try to raise the further question about how parameterization itself can be restricted. This highlights a number of open questions, as does the approach to island phenomena sketched in the final chapters. I hope that at least some students will be encouraged to try to find out answers to these and related questions themselves.

Because the Minimalist Program is a research agenda rather than a particular theory, and because one of my main aims in this book is to introduce students to how internally consistent syntactic systems are constructed, I have melded argumentation and analyses from the literature with ideas that have developed from the particular theoretical choices I have made. For example, the checking theory I have adopted allows variation in the strength of the values of features, rather than in the features themselves, with effects on numerous analyses and on the encoding of parametric variation; the approach to verbal inflection I propose is different from others in the literature (although I do discuss the alternatives); the analyses I sketch for passivization, for subject wh-questions, and for verb-second, for example, are not derived directly from the primary literature, but rather arise from the particular implementation of Minimalism developed here. This was the best way I could see of achieving my three aims of theoretical consistency, a reasonable coverage of core phenomena, and a fair amount of analytical rigour. I hope that readers knowledgeable about the current Minimalist literature will forgive any liberties I have taken.

Finally, some thank-yous: first, to three anonymous OUP reviewers, two of whom later became onymous as Bob Borsley and Liliane Haegeman. All three reviewers went well beyond the call of duty, and provided the book with much needed direction, and I'm hugely grateful to them, as I am to my editor at OUP, John Davey, for advice and encouragement. I'd also like to thank Bob Friedin, Jason Merchant, and Andrew Radford for comments on an earlier draft and Bernadette Plunkett and Gillian Ramchand, both of whom used earlier versions of the book in their teaching, and who provided me with detailed comments about how it was structured. Many thanks too to all the students who have been subjected to earlier versions of this material, and whose patience and forbearance was, at times, amazing. I also need to acknowledge a debt to Donna Jo Napoli's

book *Syntax*, from which I have adapted many of my exercises. Bernadette and Gillian join a band of trusty linguistic old faithfuls who have been on call for me whenever I needed to check out that an idea wasn't completely insane. Others in this band are Daniel Harbour, Ian Roberts, George Tsoulas, and the Tequila Cabal. Final thanks are to Anson, *sine quo nihil*.

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# 1

## Core Concepts

### 1.1 What is a sentence?

#### 1.1.1 Utterances, propositions, and sentences

Certain utterances of human languages seem to have a special status, in that they express what you might call ‘complete thoughts’. So if I were to say, “It’s rather hot, today”, any native English speaker will interpret me as conveying a message which is somehow complete. Note that *you* could say exactly the same thing, “It’s rather hot, today”, which will also convey a complete message. However, if I do this on Sunday, and you do it on Monday, the message communicated is different. Linguists say that the **proposition** expressed is different.

A proposition is that aspect of the meaning of a sentence which allows us to say, “Yes, that’s true” or “No, that’s false”. It describes a state of affairs that holds in the world, and its correspondence with that state of affairs allows us to attribute truth or falsity to the proposition. There are other aspects of sentence meaning which we will address later in the book, but propositional meaning will be the most relevant for us here.

Note that, even though we have expressed different propositions, we have both used exactly the same linguistic form. We have both said the same **sentence**. This little scenario gives us some grasp of a core idea in syntax, the idea of a sentence as an abstraction over **utterances** which have the same form. Linguistic form is not important to a proposition. The same proposition is conveyed by the English sentence (1), the French sentence (2), and the Scottish Gaelic sentence (3), even though these sentences are in different languages:

- (1) John saw Stephan.
- (2) Jean a vu Stephan.
- (3) Chunnaic Iain Stephan.

So a proposition is that aspect of the meaning of a sentence which says something about a state of affairs, and an utterance is an actual use of a sentence. How do we define sentence itself then?

Take any act of linguistic communication, an utterance of (1) by me to you, for example. Somehow you glean a proposition from my utterance of (1). How do you do this? The common-sense answer is that it's because we both know the same language. Focusing in more precisely on the question of how we define sentences, it appears that there is something about my knowledge of English which is shared with your knowledge of English, and that this includes how to form sentences of English, and how the proposition expressed by a sentence depends on its form. Clearly the form is important, since if you were to utter some sequence of sounds that did not form a sentence of English, then I'd have a much more difficult task in understanding what proposition you were trying to convey.

Part of our shared knowledge of language, then, allows us to construct sentences, which we can then utter. Again, the idea of a sentence is more abstract than the idea of an utterance (*which is something that you can hear, record, feed into a computer as sound waves, etc.*). A sentence itself is something which can't be recorded, heard, or electronically manipulated, only **uses** of sentences can. These stretches of words that you are now reading, delimited by capital letters and full stops, and interspersed with other markings, are uses of sentences. The sentences themselves are defined by the knowledge of English that I put to use in writing them, and that you use in comprehending them. Although it sounds counter-intuitive, what you see on this page are technically utterances, in that they have an external, physical manifestation. Sentences, on the other hand, are internal, mental entities, which have an abstract form.

### 1.1.2 Acceptability, grammaticality, and stars

The form of sentences is what will mainly concern us in this book. The example I went through above showed that *the same sentence form can be used to express different propositions on different occasions of utterance*. We can also express the same proposition using different sentence forms. So most people would agree that essentially the same message is conveyed by both the sentences below:

- (4) That monkey is eating the banana.
- (5) The banana is being eaten by that monkey.

And most people would find it difficult to say what message is conveyed by (6) and would reject it as a sentence of English:

- (6) By is eaten monkey banana that the being

Why is (6) not an **acceptable** sentence of English? Well obviously the **order** of the words matters. (6) uses exactly the same words as (5) but the order in which the words come in (6) is somehow not an order which English allows. Acceptability, however, doesn't just depend upon the order of words. (7) is just as unacceptable as (6), but the order of the words seems to be fine (it's just like the order in (4)), it's the *form* of the words that makes the sentence unacceptable, the word after *is* should have the form *eating*, not *ate*:

- (7) That monkey is ate the banana

As well as clearly unacceptable sentences like (7) and (6), we also find sentences which seem odd in some way.

- (8) The amoeba coughed

The acceptability of this sentence depends upon the context in which it is uttered. (8) is unacceptable to most speakers if someone just says it out of the blue. However, one can easily imagine contexts where (8) is quite fine: in a fantasy novel for example, or as a description about what's going on in a children's cartoon. The form of (8) does not appear to be a determining factor in our judgements of its acceptability, it is rather the proposition that is expressed which we baulk at. The acceptability of (8), then, appears to be dependent on our view of the world. In most people's view of the world, amoebas don't cough or faint, and so we judge (8) as unacceptable because it conflicts with our expectations about what words can mean, and about how the world works.

There are also cases of unacceptable sentences which appear to be semantically plausible, but which seem to be awkward. An example of such a sentence is (9):

- (9) I looked the number which you picked out at random by using a needle and a phonebook up.

This sentence becomes more acceptable if the word *up* is placed immediately after the word *look*:

- (10) I looked up the number which you picked out at random by using a needle and a phonebook.

Another way of making this kind of sentence more acceptable is by making the distance between *look* and *up* shorter:

- (11) I looked the number up.

The unacceptability of (9) might have an explanation in terms of how we process the sentence. In an intuitive sense, the words *look* and *up* are closely associated with each other. In (10), they are pronounced together, while in (11) they are separated by a small number of words. In (9), however, there are fifteen words between *look* and *up*. One hypothesis to pursue would be that, on processing the sentence, the hearer accesses the word *look* and expects the word *up* to appear next. However, the hearer has to wait quite some time for the expected word to appear, and presumably process a fairly complex structure in the meantime. We might, therefore, put the unacceptability of (9) down to the fact that the connection between *look* and *up* is difficult to make because there is too much other processing going on.

This kind of explanation for unacceptability is known as a **parsing** explanation. It assumes that the problem with the sentence is not that it does not conform to the rules of the language, but rather that human beings processing (or parsing) the sentence have a hard time assigning the right structure to it. In the most extreme cases we might conclude that the sentence can't be parsed at all—it is **unparsable**.

Notice that this kind of explanation does not appear to be available for examples like (7). We cannot make the sentence any better by reducing the distance between the relevant words. The problem appears to be that the language simply requires a particular relationship to hold between these words, and in (7) it simply doesn't hold. This kind of explanation for the unacceptability of (7) is known as a **grammaticality** explanation, and sentences like (7) are termed **ungrammatical**.

Syntacticians express the claim that a particular sequence of words is not a grammatical sentence of the language under discussion, by marking that sequence with a star, like this:

- (12) \*By is eaten monkey banana that the being

- (13) \*The monkey is ate the banana

Sometimes a sequence of words is called a **string**. Putting a star at the start of a string is a claim that it isn't a grammatical sentence of the language in question.



Acceptability concerns making a judgement about the status of a string as part of a language, and as such it's an intuition that speakers of the language have. The claim that a sentence is difficult to parse, or that it is ungrammatical, is an attempt to explain its (un)acceptability. As linguists, we cannot know in advance whether a string of words is unacceptable because it is difficult to parse, because it is ungrammatical, or because of some other factor.

The acceptability of a sentence will also often depend upon whether the sentence expresses the intended meaning. Here the judgement doesn't state whether the string is acceptable or not, but rather whether the string is assigned the meaning that is specified. So sometimes you might see the claim that a sequence of words is 'starred (\*) under the intended interpretation'. What this means is that the sentence is unacceptable as an expression of a particular proposition. This use of the star is most common when contrasting the meanings of sentences. For example, (14) has the meaning that there are some people in the garden, and not the meaning that it's generally a property of people that they're in the garden, while (15) works in the opposite way, it means that, as a rule, people are stupid. It cannot mean that there exist some stupid people. It is therefore said to be starred under this interpretation.

(14) People are in the garden.

(15) People are stupid.

What we have here is a case where the form of the sentence is fine, and the sentence is perfectly grammatical, but the interpretation of the sentence is not the one that one might expect, given the interpretation of other similar sentences.

Here is another example of the same kind of thing:

(16) How did Julie ask if Jenny left?

This sentence can be a question about the way that Julie asked something (loudly, rudely, etc.), and it is perfectly fine under this interpretation. However, the discussion of this example might make it clear that the intended interpretation is a question about the way that Jenny left (angrily, jauntily, etc.). This kind of interpretation is perfectly possible for a sentence like (17):

(17) How did Julie say that Jenny left?

However, this is *not* a possible meaning of (16). In that case, we would say that (16) is ungrammatical under this interpretation.