TRANSFORMATIONAL GRAMMAR

A FIRST COURSE

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PROLOGUE

[This prologue is a short, one-act play for reader and author]

READER [groaning in protest]: Oh no, not another book on Transformational Grammar! I've never done any grammar before: will I be able to follow it?

AUTHOR: Of course you will! I've aimed the book at the absolute beginner who's not done any Syntax before.

READER: What's the general aim of the book?

AUTHOR: To get beginners to the point where they can understand some of the ideas and issues debated in *current* work on Transformational Syntax such as Chomsky's *Knowledge of Language*, or *Barriers*. I've deliberately set out to de-bug the text of the unnecessary technical jargon which plagues so much of the literature in the field. In that respect it's like my earlier *Transformational Syntax* book. But this isn't a second edition of that: the two are very different.

READER: Different how?

AUTHOR: There are three main differences – *theoretical, descriptive,* and *pedagogical*. From a theoretical viewpoint, this book is much more up to date than the earlier one, and so uses a more recent framework. which takes into account major works published since 1981 (e.g Chomsky's *Barriers* monograph). At a descriptive level, the presen book has a greater data coverage than its predecessor – i.e. it dis cusses a wider range of constructions and rules. And from a peda gogical perspective, more care has been devoted in the presen book to providing a gentler, more gradual, and more sympatheti introduction to those concepts and constructs which proved men tal stumbling blocks to some readers in the old book. In othe words, the new book is more up to date, more comprehensive, and more intelligible than the old one.

READER: Is it intended as a reference book or as a coursebook?

AUTHOR: It's intended primarily as a *coursebook*, to be used either for class work, or for home study. It's written in a clear enough style that you don't need to rely on having a teacher to explain things to you. But the book also has a detailed bibliographical background section and an extensive bibliography, and these serve an obvious reference function.

READER: Is it a practical book?

AUTHOR: Yes! That's why it has lots and lots of exercise material at the end of every chapter. I want *to get you to be able to do syntax for yourself* – not just to read about how other people do it. Anyone who's read the text should be able to tackle the exercises: they don't require additional background knowledge or reading. There are three different types of exercises.

READER: What are they?

AUTHOR: The first type are *reinforcement* exercises, which give you practice at applying the ideas discussed in the text. The second type are *advancement* exercises, which get you to apply the concepts, structures, or terminology discussed in the chapter to constructions which are not quite the same as (though similar to) those discussed in the text: these are marked by a prefixed single asterisk *. The third type are *problem* exercises, which attempt to get you to look rather more critically at some of the assumptions, arguments and analyses given in the text; these are marked with a prefixed double asterisk **.

READER: Do you have to do the whole of a chapter before you can tackle any of the exercises?

AUTHOR: No, not at all! Each chapter is divided up into about ten different sections. Each exercise relates to ideas discussed in specific sections of the chapter. You'll find at the end of the relevant section of the main text an indication along the following lines:

You should now be able to tackle exercise IV

READER: What's the point of that?

AUTHOR: Well, the whole idea is to cater for both *hares* and *tortoises*! Hares who want to race through a whole chapter at one go, and then tackle the exercises as a block can do so. But tortoises who prefer to plod slowly through each chapter one section at a time, can

'stop' at the end of a particular section, and test themselves with the exercise(s) relating to that section. Likewise, the teacher who wants to cover a whole chapter in a class can ask the class to pre-pare the whole chapter, and all the exercises relating to it, in a given week. But the teacher who wants to proceed at a more gentle pace can ask the class to 'prepare the first four sections of the next chapter, and the exercises relating to them, for the next session'.

READER: What kind of topics does the book cover?

AUTHOR: It covers four main topics: the goals of linguistic theory; syntactic structure and how it can be represented; the nature and role of the Lexicon; and the function and operation of Transformations. In each case, the emphasis is on current rather than past work.

READER: You mean this isn't a book which traces the history of Transforma-tional Grammar?

AUTHOR: I've included some background historical information, where this relates to 'live' issues which are still being debated in current litera-ture. But I've avoided including 'dead' ideas (i.e. ideas which were once current but have since been abandoned).

READER: Doesn't knowing the way things used to be help you understand the way they are today?

AUTHOR: No, not necessarily. After all, knowing the etymology (= history) of a word doesn't always help you understand its current meaning any better (which is why many dictionaries no longer include ety-mological information). And in the case of Transformational Grammar, the past few years have seen such a major theoretical reorientation in aims, methods, terminology, and argumentation that it is no longer true that reading yesterday's Linguistics helps you understand today's Linguistics. On the contrary, many begin-ners find the historicist approach tiresome and bewildering.

READER: When I've finished this book, will I be able to go off and read the primary literature on Transformational Grammar? Will I be able to read through Chomsky's *Knowledge of Language*, for example?

AUTHOR: Well, you'll be able to read and understand parts of it. But not all of it. There are some more technical topics which are not covered in this book – as you'd expect from any *introductory* book.

READER: Is there a book which will serve as a transition between your intro-ductory book, and the primary literature?

AUTHOR: Well, I'm working on a companion volume to this one which is intended to do just that: it's an intermediate/advanced coursebook, and provides a detailed discussion of recent work on Binding,

Bounding, Chains, Empty Categories, Theta Marking, Case Mark-
ing, Logical Form, Parameters, etc.

READER: But I don't know what all those technical terms mean.

AUTHOR: Well, the sooner you plough through this volume, the sooner you'll
find out! And don't you dare miss out the exercises!

ACKNOWLEDGMENTS

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Goals

1.1 Overview

The aim of this chapter is to give you some idea of the goals of linguistic theory, and to introduce you to some simple concepts which will be used throughout the rest of the book. Among the notions which will be explained in this chapter are terms such as *theory of language, grammar of a language, particular/universal grammar, competence, performance, grammaticality, linguistic intuition, rule-governed creativity, generate, observational/descriptive/explanatory adequacy, constraint, markedness,* and *innateness.*

1.2 Grammatical competence

Linguistics is the study of *Language.* But why should we be interested in the phenomenon of *Language?* Chomsky gives an avowedly *mentalist* answer to this question. For him, the most fundamental reason for studying language is that language is a mirror of the mind – i.e. by detailed study of language, we might hope to reach a better understanding of how the human mind produces and processes language. As Chomsky remarks (*Language and Mind* (1972a), p. 103):

> There are a number of questions which might lead one to undertake a study of language. Personally, I am primarily intrigued by the possibility of learning something, from the study of language, that will bring to light inherent properties of the human mind.

But what aspects of language should be the focus of our study? Chomsky's answer is that there are three inter-related theories which any detailed study of language ultimately seeks to develop, namely:

(1) (i)   Theory of Language Structure
    (ii)   Theory of Language Acquisition
    (iii)   Theory of Language Use

The Theory of Language Structure will concern itself with what are the defin-

ing structural properties of natural (i.e. human) languages; the Theory of Language Acquisition with the question of how children acquire their native language(s); and the Theory of Language Use with the question of how linguistic and nonlinguistic knowledge interact in speech comprehension and production. Of the three, the task (i) of developing a Theory of Language Structure is logically prior to the other two, since only if we first know what 'language' is can we develop theories about how it is acquired and used. It is perhaps not surprising, therefore, that most of Chomsky's work has been devoted to the attempt to develop a Theory of Language Structure.

But what exactly is it that such a theory seeks to characterise? The answer is that any adequate Theory of Language Structure must provide answers to questions such as the following:

- What is language?
- What is it that you know when you know a language?
- What are the essential defining characteristics of natural languages which differentiate them from, for example, artificial languages like those used in Mathematics or Computing, or from animal communication systems?
- Do languages differ from each other in unpredictable ways, or do they all share certain common, universal properties?

But how do we attempt to develop a Theory of Language Structure which will answer such questions? The first step is to formulate detailed descriptions (known technically as *grammars*) of particular languages (e.g. English): this is the stf.jy of *Particular Grammar*. So, for example, we might try and devise a grammar of English, a grammar of French, a grammar of Swedish, a grammar of Swahili, a grammar of Chinese . . . and so on and so forth. A grammar of a particular language will take the familiar form of a set of rules or principles which tell you how to 'speak' and 'understand' the language: more precisely, a grammar will comprise a set of rules or principles which specify how to form, pronounce, and interpret Phrases and Sentences in the language concerned. The word *grammar* in this technical sense has a much broader sense than that familiar from school textbooks, since it covers not only Morphology (i.e. the internal structure of words) and Syntax (i.e. how words are combined together to form phrases and sentences), but also Phonology (i.e. pronunciation) and some aspects of Semantics (i.e. meaning) as well. When we have compiled detailed grammars of a number of different languages, the second step in our quest for a Theory of Language Structure is to abstract from particular grammars common, universal properties that they all share: this is the study of *Universal Grammar* – i.e. the search for linguistic universals.

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Consider first the study of Particular Grammar. What exactly is it that a grammar of a particular language sets out to describe? Chomsky gives an essentially *mentalist* answer to this question: for him, a grammar is a *model* (= systematic description) of those linguistic abilities of native speakers of a language which enable them to speak and understand their language fluently. These linguistic abilities, Chomsky terms the *competence* of the native speaker. Thus, a *grammar* of a language is a model of the linguistic competence of the fluent native speaker of the language. *Competence* (the fluent native speaker's knowledge of the language) is contrasted by Chomsky with *performance* (what people actually say or understand by what someone else says on a given occasion). Competence is 'the speaker–hearer's knowledge of his language', while Performance is 'the actual use of language in concrete situations' (Chomsky, *Aspects* (1965), p. 4). Very often, performance is an imperfect reflection of competence: for example, the fact that people make occasional slips of the tongue in everyday speech does not mean that they don't know their native language, or don't have fluency (i.e. competence) in it. Slips of the tongue and like phenomena are – for Chomsky – *performance errors*, attributable to a variety of performance factors like tiredness, boredom, drunkenness, drugs, external distractions, and so forth. Linguistics is – for Chomsky – primarily concerned with competence, since a Theory of Competence will be a subpart of an eventual Theory of Performance: that is, you have to understand what a native speaker knows about his language before you can study the effects of tiredness, drunkenness, etc. on this knowledge. Thus, what we mean by saying that a grammar is a model of the native speaker's competence is that a grammar tells us what we need to know in order to be fluent in a language.

Chomsky distinguishes two types of competence: (i) *grammatical competence*, and (ii) *pragmatic competence* (see e.g. Chomsky, *Essays* (1977a), p. 40). The former belongs to the Theory of Language Structure, and the latter to the Theory of Language Use. Pragmatics is concerned with the role played by nonlinguistic information such as background knowledge and personal beliefs in our use of sentences. To take one of Chomsky's own examples (from *Essays* (1977a), p. 40), suppose I have a friend who says to me 'Today was a disaster.' If I know (by way of background information) that he was giving a special lecture today, then on the basis of this background knowledge I infer that he probably means that his lecture went down very badly. It is the native speaker's *pragmatic competence* which enables him to bring into play nonlinguistic information in the interpretation of sentences. By contrast, in the case of a sentence such as:

(2)   He thinks that John is wrong

it is the native speaker's *grammatical competence* (his knowledge of the grammar of his language) which tells him that *he* cannot be interpreted as referring to the same person as *John* in a sentence like (2). Since, as we noted earlier, Chomsky has devoted himself primarily to the study of language structure rather than language use, he has focussed almost exclusively on the task of attempting to characterise *grammatical* rather than *pragmatic* competence.

The native speaker's grammatical competence is reflected in two types of *intuition* which speakers have about their native language(s) – (i) intuitions about sentence *well-formedness*, and (ii) intuitions about sentence *structure*. The word *intuition* is used here in a technical sense which has become standardised in Linguistics: by saying that a native speaker has *intuitions* about the well-formedness and structure of sentences, all we are saying is that he has the ability to make *judgments* about whether a given sentence is well-formed or not, and about whether it has a particular structure or not. The term *well-formed* is also a standard technical term in the linguistic literature: for the time being, you can think of it as meaning 'OK' – but a little later, we'll try and define *well-formedness* a little more precisely.

These *intuitions* about sentences span four different aspects of language – namely *Phonology* (= the study of sounds and sound systems), *Morphology* (= the study of how morphemes (grammatical units smaller than the word) are combined together into words), *Syntax* (= the study of how words are combined together to form sentences), and *Semantics* (= the study of meaning). Hence, we can say that native speakers have phonological, morphological, syntactic, and semantic competence, and that this competence is reflected in their intuitions about the phonological, morphological, syntactic, and semantic well-formedness and structure of sentences in their native language(s). We'll look briefly at each of these different aspects of competence in turn.

Let's begin by illustrating typical intuitions reflecting a native speaker's *phonological* competence. All native speakers of English would agree that (3) (a) below is phonologically well-formed in respect of its stress pattern (i.e. it's OK to pronounce the sentence with primary stress on the capitalised syllables), whereas (3) (b) is phonologically ill-formed in respect of its stress pattern (i.e. it isn't OK to pronounce the sentence with primary stress on the capitalised syllables):

(3) (a)   THIS is a graMMAtical SENtence
   (b)   This is A grammatiCAL senTENCE

So, we all have intuitions about possible and impossible stress patterns in sentences. Moreover, we all have strong *phonotactic* intuitions – i.e. intuitions

about what are possible and impossible sound sequences among native words in English. For instance, we'd probably all agree that *blick* is a possible, but non-occurring English word, whereas **bnick* by contrast is not a possible native English word (an asterisk in front of a word, phrase, or sentence indicates that it is ill-formed in some way): such a word could only occur in English as a foreign borrowing. Phonological competence is also reflected in intuitions about phonological structure: any English speaker intuitively feels, for example, that the sequence 'black bird' can either be a single phonological word (**BLACK**bird, with primary stress on *black* = a species of bird, like thrush, robin, etc.), or two independent phonological words (**BLACK BIRD** or black **BIRD** = bird which is black, as opposed to 'white bird', 'yellow bird', etc.).

In much the same way, *morphological competence* is reflected in the native speaker's intuitions about morphological well-formedness and structure. For example, native speakers of English know that *van* and *can* have the respective plural forms *vans* and *cans*, but that the plural of *man* is *men* and not **mans*. Likewise, native English speakers know that *fold* and *scold* have the respective past tense forms *folded* and *scolded*, but that the past tense form of *hold* is not **holded*, but rather *held*. In the same way, anyone fluent in English knows that the Verbs *approve* and *refuse* have corresponding Nouns *approval* and *refusal*, but that the Noun counterparts of *prove* and *amuse* are not **proval* and **amusal*, but rather *proof* and *amusement*. In addition, native speakers also have intuitions about morphological structure: for example, English speakers intuitively feel that words like *overload*, *overplay*, and *overwork* are structured out of two independent morphemes, a prefix *over* (meaning 'excessively') and a stem *load–play–work*, whereas by contrast *overture* does not comprise the two morphemes *over* and *ture*.

The native speaker's *semantic* competence is reflected in intuitions about semantic well-formedness and structure. For example, any native speaker of English would agree that (4) (a) below is semantically well-formed, but that (4) (b) is semantically ill-formed (i.e. 'odd' in some way, by virtue of its meaning, so that it 'doesn't make sense'):

(4) (a)   I thought that Mary was ill, but it turned out that she wasn't

    (b)   !I realised that Mary was ill, but it turned out that she wasn't

(In this book, we use ! in front of a sentence to show it is 'anomalous' (i.e. semantically or pragmatically 'odd'); generally speaking, we follow the standard practice of using an asterisk * in front of a sentence to indicate that it is *syntactically* ill-formed, though occasionally we extend the use of the asterisk to indicate that a sentence is simply ill-formed in some way, without specifying

in what way(s)). A second type of semantic intuition which native speakers have about their language concerns semantic structure and semantic relations. To take an example from Chomsky (*Knowledge* (1986), p. 8), any native speaker of English knows that *them* can be interpreted as being coreferential to (i.e. referring to the same set of individuals as) *the men* in (5) (a) below, but not in (5) (b):

(5) (a)　　I wonder who *the men* expected to see *them*
　　(b)　　*The men* expected to see *them*

Hence, intuitions about coreference relations in sentences are part of the set of intuitions we have about semantic relations in and between sentences.

　　Having looked briefly at how phonological, morphological, and semantic competence is reflected in intuitions about well-formedness and structure, let's now turn to examine the nature of *syntactic* competence. Here, too, we find that competence is reflected in two types of intuition: intuitions about syntactic well-formedness, and intuitions about syntactic structure. To say that a native speaker has intuitions about syntactic well-formedness in his language is to say that he is able to judge whether such-and-such a sequence of words is a grammatical sentence in his language or not. For example, any native speaker of English would intuitively recognise (leaving aside for the moment differences of style or dialect) that all the examples in (6) below are grammatical (i.e. syntactically well-formed) sentences in English:

(6) (a)　　I gave back the car to him
　　(b)　　I gave the car back to him
　　(c)　　I gave him back the car
　　(d)　　I gave him the car back

but that the following are ungrammatical as sentences of English:

(7) (a)　　*I gave the car to him back
　　(b)　　*I gave back him the car

(Recall that an asterisk in front of a sentence means that it is ill-formed in some way (usually, *syntactically ill-formed*, i.e. *ungrammatical*); by convention, any sentence which does not have an asterisk in front of it is assumed to be well-formed; note that asterisks go at the *beginning*, not the *end* of sentences!)

　　But what does it mean to say that native speakers have intuitions about the *syntactic structure* of sentences in their language? All this means is that native speakers have 'gut feelings' about which words in a sentence 'go with' or 'modify' which other words. For example, in the case of a sentence such as: