



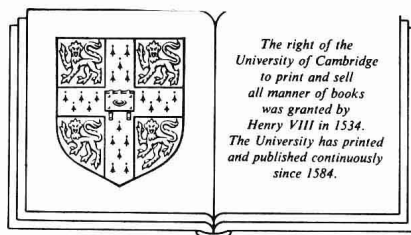
# Natural language and universal grammar

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*Essays in linguistic theory, volume I*

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John Lyons is recognised internationally as one of the most influential scholars in modern linguistics. This volume contains essays spanning many years of his thought and research, in addition to previously unpublished pieces. Chapters 2, 3 and 4 make their first appearance here, and set out the view of linguistics and linguistic theory which underlies the content of this and a companion volume (forthcoming).

The remaining six chapters have been either extensively revised or annotated to provide the reader with their historical context and to bring them in line with the author's current thinking.

This collection will be widely read both for the previously published material brought together here, and for the new chapters and many notes containing insights and arguments now available for the first time.

*Natural language and universal grammar*

For Chloë and Edward: *vive la différence!*

# Preface

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*Natural language and universal grammar* is the first of two volumes with the common subtitle *Essays in linguistic theory* (henceforth *Essays*). Volume II, entitled *Semantics, subjectivity and localism*, will be published shortly.

The title that I have given to *Essays I* is not as innocent as it might appear to be at first sight; and there are those of my colleagues who might see it as being almost wilfully provocative. One of my general aims, in bringing the various chapters of *Essays* together, is to demonstrate that the expressions ‘natural language’ and ‘universal grammar’ are often employed nowadays loosely and uncritically (if not equivocally) in the case of the former and tendentiously in the case of the latter. What is (or, in my view, ought to be) meant by linguists when they use the highly ambiguous phrase ‘natural language’ (either generically or non-generically) is a question that is directly addressed in Chapter 4 of *Essays I*. All the chapters in both volumes are concerned with the structure of what are normally, but imprecisely, referred to as natural languages. Almost all of them, also, are concerned with (so-called) natural languages within the framework of what would be referred to traditionally as universal grammar. But, as I explain in Chapter 7 of *Essays I* (and, in greater detail, in one or two of the chapters in *Essays II*), my view of universal grammar differs from the generativist or Chomskyan view, which currently holds sway in linguistic theory and is propagated (all too often uncritically) in many textbooks. What is (or ought to be) meant by ‘linguistic theory’ (in contrast with ‘theoretical linguistics’) is discussed in some detail in Chapter 2 of *Essays I*.

Of the nine chapters in *Essays I*, three (Chapters 2, 3 and 4) have not been published before (though Chapter 2 incorporates a revised version of part of an earlier article) and have been written up in such a way that they are interrelated both with one another and with some of the previously unpublished chapters of *Essays II*. My guiding principle in writing them up in their present form has been to set forth a particular view of linguistics and

## Preface

linguistic theory which informs most, if not all, of the other chapters in both volumes.

The view of linguistics and linguistic theory that I currently hold is one which, in its essentials, I have held (and have not yet seen good reason to change) ever since I came into linguistics in the mid-1950s. My earlier training had been in classics (and historical and comparative philology). When I became familiar with Chomskyan generative grammar in 1957, I immediately integrated it, on the one hand, with traditional grammar and, on the other, with a rather eclectic blend of European and American structuralism. I did not realize, when I wrote some of my earlier articles and, more particularly, my book *Introduction to Theoretical Linguistics* (1968), that my view of the relation between traditional grammar and generative grammar and between structuralism and generative grammar was very much a minority view and one that was not shared by Chomsky and most of his followers. (Generative grammar was still relatively new and not always well understood, even by linguists.) That there was this difference between my view of generative grammar and the view of many other linguists did not become clear to me until the late 1960s or the very early 1970s, when Chomskyan generative grammar had come to be much more definitely associated with cognitive psychology and a particular kind of universalism than it had been previously. I now find it necessary to draw a distinction between generative grammar, properly so called, to which (as I explain in Chapters 2 and 3 of *Essays I*) I am as fully committed now as I have been since 1957, and generativism, about much of which, including its cognitivism and its notion of universal grammar, I am professionally, and I think properly, agnostic. But my agnosticism, unlike that of many critics, has nothing to do with the philosophical or psychological plausibility of generativism. For me, this is irrelevant. Taken on its own terms, Chomskyan generativism seems to me to be eminently defensible (even if much of the detailed empirical argument associated with it is not). But, in my view, linguistic theory should not be constrained by generativist assumptions: it should be concerned with a broader range of languages (natural and non-natural) and it should cover a much wider range of data.

Of the six previously published articles which are now being republished in *Essays I*, some have been left more or less unchanged (except for the notes), whilst others have been extensively revised. Two of them, which have been widely quoted in textbooks and monographs and have appeared in whole or in part in readers and anthologies (Chapters 6 and 7), could not be revised, I felt, without causing confusion. I have therefore reprinted them without changing them at all, as far as the text is concerned; but I have



## Preface

provided them with an Epilogue (and with very full notes) which contextualizes them historically and, for what it is worth, gives my own assessment of their content. Whenever I have made significant changes in the text of one of the republished articles, I have then changed its title; and, generally speaking, the degree of difference between the old and the new title reflects the degree of change that I have introduced into the text. In all cases the provenance of each chapter, whether it derives from a previously published article or not, is given in the accompanying notes.

This work has been several years in preparation, its publication having been delayed, initially by the pressures of administrative work and subsequently by recurrent ill-health. Also, the task of bringing together and editing a set of previously published articles has turned out to be more difficult than I had originally envisaged – far more difficult than writing a completely new book from scratch – and this has further delayed publication.

The delay in publication has had several consequences (not all of them detrimental, I think, to the final product). The first is that, in several other publications over the years, I have referred to *Essays in Linguistic Theory* as ‘forthcoming’, and, on occasion, have even provided it, in references, with a year of publication. For this I apologize.

The second consequence – for which I should perhaps also apologize – is that it has now become a two-volume work and includes several previously unpublished chapters which I had not originally intended to write up for publication, in their present form at least.

The third results from the development, in the intervening years, of a much greater interest on the part of linguists and historians of ideas in the recent history of linguistics and, more particularly, of one or two of the movements with which I happen to have been associated in the 1960s and 1970s. For this reason I have now greatly expanded the notes that I have added to the relevant chapters and have made them rather more personal and autobiographical than I would have done otherwise. For the same reason I have republished, as an Appendix, the text of my 1965 Inaugural Lecture at the University of Edinburgh and have provided it with very full explanatory notes: I trust that my erstwhile colleagues at Edinburgh, now as then, one of the major centres of linguistic theory in Great Britain, will find my personal account of the local history acceptable.

The fact that *Essays I* contains (in addition to the previously unpublished chapters written especially for the purpose) republished articles of varied provenance means that there is a certain amount of stylistic and terminological inconsistency. It would have been impossible to eliminate

## *Preface*

this entirely, even if I had felt free to make anachronistic and historically irresponsible changes in the text of previously published and widely quoted articles. Whenever it has seemed important or helpful to draw the attention of readers to potentially confusing differences of terminology and notation, I have done so in the notes.

One of the stylistic consequences of my decision not to introduce any changes into the text of previously published and widely quoted articles is that I have not been able to eliminate from such articles in their republished form the use of the pronoun 'he' for sex-neutral (and gender-neutral) indefinite and generic reference, which was of course until recently normal usage. I trust that I shall be forgiven by those of my readers who find this usage stylistically awkward or offensive. I have done my best to avoid it (with the sharp-eyed assistance of my Cambridge University Press sub-editor) in all the newly written or rewritten passages, even though in doing so I have occasionally had to introduce a stylistically or semantically undesirable disjunction or to replace a true generic with a somewhat less precise plural. But even the most pedantic of semanticists must concede that a contextually acceptable degree of imprecision or ambiguity is preferable to what has now become an unacceptable degree of linguistic discourtesy.

It is impossible for me to list here all the colleagues, friends and students who have influenced my views on linguistics, directly or indirectly, over the years. I hope that I have made sufficient acknowledgement of their influence in the notes and references and that they will accept that here I can do no more than thank them collectively for all that they have taught me (sometimes perhaps without realizing it). I must also thank Cambridge University Press for their willingness to publish a very different book from the one that I was expected to produce and for the encouragement and guidance that I have received from the editors with whom I have worked, intermittently, for the last ten years or so: Jeremy Mynott, Penny Carter, Marion Smith, Judith Ayling and Julia Harding. I would also like to thank Maureen Elvin, my secretary, who typed the newly written articles. Finally, I must record my gratitude, once again, to my wife and family for their continued love and support, making particular mention of my grandchildren, Chloë and Edward, who do not yet appreciate how much I have learned from them about language.

*Cambridge,  
November 1990*

J.L.

# Typographical conventions

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The following conventions have been used throughout the present volume, except in the case of previously published and widely quoted articles (see Preface).

## *Italics*

- 1 For forms (as distinct from expressions, including lexemes) in their orthographic representation.
- 2 For utterances (as distinct from sentences).
- 3 For certain mathematical and logical symbols, according to standard conventions.

## *Single quotation-marks*

- 1 For expressions (including lexemes) in their citation-form.
- 2 For sentences (except when they are displayed: see note 2 below).
- 3 For titles of articles and chapters.

## *Double quotation-marks*

- 1 For meanings.
- 2 For propositions.
- 3 For quotations.

## *Notes*

- 1 Single quotation-marks are omitted when a sentence (or other expression) is displayed and set on a different line; but italics and double quotation-marks are still used in such circumstances.
- 2 In quotations, the original typographical conventions have usually been preserved. Occasional adjustments have been made in order to avoid confusion or ambiguity.

# Contents

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<i>Preface</i>	<i>page</i> xi
<i>Typographical conventions</i>	xv
1 Language, speech and writing	I
2 In defence of (so-called) autonomous linguistics	12
3 Linguistic theory and theoretical linguistics	27
4 Natural, non-natural and unnatural languages: English, Urdu and other abstractions	46
5 The origin of language, speech and languages	73
6 Phonemic and non-phonemic phonology: some typological reflections	96
7 Towards a 'notional' theory of the 'parts of speech'	110
8 Deixis as the source of reference	146
9 Deixis and anaphora	166
Appendix: The scientific study of language. Inaugural Lecture, Edinburgh, 1965	179
<i>Notes</i>	202
<i>References</i>	240
<i>Subject index</i>	278
<i>Names index</i>	287

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## Language, speech and writing

What I am concerned with in this chapter is not language in the most general sense of the term 'language' but with what can be described more fully as natural human language.<sup>1</sup> Arguably, this fuller description is redundant in respect of either or both of the two adjectives, 'natural' and 'human'. Indeed, this is the view that most linguists and many philosophers of language would take. But it is worth making the point explicit and concentrating for a moment upon the implications of both of the qualifying adjectives, without prejudice to the question of whether there is any language, properly so called, that is non-natural or non-human.

Without dwelling upon the details let us say that a natural language is one that has not been specially constructed, whether for general or specific purposes, and is acquired by its users without special instruction as a normal part of the process of maturation and socialization. In terms of this rough-and-ready operational definition, there are some thousands of distinct natural human languages used in the world today, including English, Quechua, Dyirbal, Yoruba and Malayalam – to list just a few, each of which is representative, in various ways, of hundreds or thousands of others. But Esperanto, on the one hand, and first-order predicate calculus or computer languages such as ALGOL, FORTRAN and BASIC, on the other, are non-natural. Many non-natural languages are parasitic, to a greater or less extent, upon pre-existing natural languages. This being so, though non-natural, they are not necessarily unnatural; they may be comparable, structurally and perhaps also functionally, with the natural languages from which they derive and upon which, arguably, they are parasitic. I say 'arguably', not only because the point, as I have put it, is debatable, but also because by putting it in this way I am hinting at a deeper and theoretically more interesting sense of 'natural', and of its contrary 'unnatural', than my operational definition of 'natural language' requires.

It has been argued, notably by Chomsky, that languages that meet my

operational, and intuitively applicable, definition of 'natural' do so, not simply as a matter of historical contingency, but by virtue of biological necessity: that natural human languages are structurally adapted to the psychological nature of man; and that if they were not so adapted, they could not be acquired, as I have said they are, without special instruction as an integral and normal part of the process of maturation and socialization. The question of whether natural human languages as we know them are also natural in this deeper sense (which I distinguish from other senses of 'natural' in Chapter 4 below) is of course philosophically controversial. I am not concerned with this question as such. It suffices for my present purpose that Chomsky and others inspired by his work, philosophers and psychologists, have provided a serious defence of innatism (or nativism).<sup>2</sup>

Granted that it is appropriate to use the term 'language' to refer to a wide range of communicative and symbolic systems employed by animals and machines, we can proceed to distinguish human from non-human languages. And this distinction can be drawn in various ways: we can define human languages as languages that are actually used by human beings; as languages that could be used by human beings (with what is meant by *could* spelt out); as languages that are normally or naturally (in one or other sense of 'naturally') used by human beings and so on. For present purposes, the following operational definition will suffice: a human language is one that is attested as being used (or as having been used in the past) by human beings; and a non-human language is one that is (or has been) used by any non-human being (either an animal or a machine). This definition leaves open the possibility that the intersection of the two sub-classes of languages thus distinguished is non-empty; i.e., that there are languages which are both human and non-human. It also presupposes, of course, that we have some way of identifying human beings that does not make the possession of language criterial in their identification. It would not do for us to adopt Schleicher's (1863) attitude: "If a pig were to say to me 'I am a pig', it would *ipso facto* cease to be a pig."<sup>3</sup>

As with the distinction between natural and non-natural languages, so too with the distinction between human and non-human languages, as I have just drawn it; it can be argued that human languages share a number of structural properties, or design characteristics, that set them off as a class from the languages of other species, so that it is legitimate to talk not only of human languages, but also of human language in the singular. It is by coupling the two predicates 'natural' and 'human' and giving to each its deeper sense that we arrive of course at the characteristically Chomskyan thesis of innatism. As Chomsky put it in his *Reflections on Language*: "A

human language is a system of remarkable complexity. To come to know a human language would be an extraordinary intellectual achievement for a creature not specifically designed to accomplish this task. A normal child acquires this knowledge on relatively slight exposure and without specific training" (1976: 4).

It is an obvious, but none the less important, fact that one cannot possess or use language (henceforth I shall restrict the term 'language' to natural human language) without possessing or using some particular language – English, Quechua, Dyirbal, Yoruba, Malayalam, or whatever. Each of these differs systematically from the others, so that, due allowance being made for the well-known problems of drawing a sharp distinction between languages and dialects, styles or registers, we can usually determine that someone is using one language rather than another on particular occasions.<sup>4</sup> We do this, whether as investigating linguists or as participating interlocutors, by observing and analysing, not the language-behaviour itself, but the products of that behaviour – strings of words and phrases inscribed (in a technical sense of 'inscribe') in some appropriate physical medium. But the language, for the linguist at least, is neither the behaviour nor the products of that behaviour, both of which are subsumed under the ambiguous English word 'utterance'.<sup>5</sup> What the linguist is interested in is the language-system: the underlying, abstract, system of entities and rules by virtue of which particular language-inscriptions can be identified as tokens of the same type or distinguished as tokens of different types;<sup>6</sup> can be parsed (to use the traditional term) or (in Chomskyan terminology) assigned an appropriate structural description; and can be interpreted in terms of the meaning of the constituent expressions, of the grammatical structure of the sentences that have been uttered, and of the relevant contextual factors.

We may distinguish the language-system, then, on the one hand from language-behaviour of a particular kind and on the other from language-inscriptions. The latter, together with native speakers' intuitions of grammaticality and acceptability, of sameness and difference of meaning, and so on, constitute the linguist's data; but they are not the object of linguistic theory or linguistic description. The linguist, I repeat, is interested in language-systems; and this is true not only in microlinguistics but also in the several branches of macrolinguistics (see Chapter 2).

And when linguists come to describe language-systems, whether they subscribe to the aims of generative grammar or not, they do so by drawing a distinction between phonology and syntax and by making reference, in the description of both, as also in the account that they give of the meaning of sentences, to the information that is stored in the lexicon, or dictionary. The

term 'grammar' is commonly used nowadays to cover the rules of phonology, syntax and semantics, but not the lexicon. Taking 'grammar' in this sense, we can say that a language-system comprises both a grammar and a lexicon, and that each presupposes the other. The lexicon is a list of expressions, every one of which has one or more forms, belongs to a particular syntactic (or morphosyntactic) category, and has one or more meanings;<sup>7</sup> the rules of the grammar cannot operate otherwise than upon the expressions supplied by the lexicon and the phonological, syntactic and semantic information associated with them in individual lexical entries. (Under a rather broader interpretation of 'grammar', the term may be held to cover not only the phonological, syntactic and semantic rules of a language-system, but also the lexicon. Nothing of consequence hangs upon this particular point of terminology, unless the difference of usage is deliberately associated with a difference of view on the boundary between grammar and lexicon.)

We can now move on to consider Chomsky's distinction between competence and performance in relation to the other terminological and conceptual distinctions that have been drawn so far. Performance can be identified, without difficulty, with what I have called language-behaviour. It can thus be distinguished, in the same way, both from the products of that behaviour, language-inscriptions, and from the underlying language-system. But what is linguistic competence? At one level this question, too, can be answered without difficulty. One's linguistic competence is one's knowledge of a particular language-system: that is to say, one's knowledge of an interdependent grammar and vocabulary.

When it comes to developing this notion of linguistic competence in greater detail and giving it empirical content, the question gets more complicated and correspondingly more interesting. Here I will simply make the point that, although Chomsky recognizes the logical validity of the distinction between a language-system and someone's knowledge of the system (whether that someone is an actual or an ideal user of the system), he maintains that the distinction can, for theoretical purposes, be ignored. He has therefore tended to use the term 'grammar' with what he calls systematic ambiguity: to refer indifferently to both the rules of the language and the ideal user's knowledge of the rules. For Chomsky, it would appear, the only kind of reality that can be ascribed to grammars and to natural human languages is psychological reality. It is for this reason that he takes the view that linguistics is a branch of cognitive psychology. But Chomsky differs from many others who are working towards psychologically real grammars in that he pays relatively little attention to what is otherwise



known or hypothesized of psychological processes. He does not believe that performance shapes competence, and his notion of psychological reality is considerably more abstract than that of most psychologists.

I now wish to make explicit the distinction, which has been implicit in everything that I have said so far, between a language and the medium in which that language is manifest. It is in terms of this distinction that I propose to discuss the relation between language and speech. 'Medium' in this sense is connected, on the one hand, with the information-theorist's notion of the channel of communication and, on the other, with the psychologist's notion of input and output modalities (in a sense of 'modality' which has nothing to do with its more usual specialized sense in linguistics and philosophy<sup>8</sup>).

Spoken language is manifest, normally, in what I shall refer to as the phonic medium: that is, the products of speech are signals, actual or potential, inscribed in the physical medium of sound. More precisely, they are inscribed (in this technical sense of 'inscribe') in the range of sound produced by the human voice – hence the term 'phonic'. Written language, on the other hand, is normally inscribed in what may be referred to as a graphic medium: anything that will sustain the requisite distinctions of shape. It is possible for spoken language to be written, and conversely for written language to be spoken. In the present context, we can safely neglect these additional complexities. It is worth noting, however, that by virtue of this possibility the term 'spoken language' is used in various senses, and at times perhaps is used equivocally, in linguistics (see Addendum below).

The main reason why we have to draw the distinction between language and medium is that human languages, as we know them in modern literate societies, are very largely independent of the medium in which they are manifest. As far as their syntactic and lexical structure are concerned, they are, in principle, completely independent: any spoken language-inscription can be converted – transcribed – into a corresponding written language-inscription in the same language, and vice versa. To the extent that written and spoken language-inscriptions are interconvertible in this way, we can say that they have the property of medium-transferability. In practice, medium-transferability is reduced in all the major languages of the world (though less in English than in many others) by virtue of the conservatism of scribal traditions, the greater standardization of the written language and its association with more formal or more official situations, and other such historically and culturally identifiable factors.<sup>9</sup> Although the consequential lack of isomorphism at the syntactic and lexical levels may have important implications for the design of certain psycholinguistic experiments, I will