

Linguistics: The Cambridge Survey

I Linguistic Theory: Foundations

Edited by Frederick J. Newmeyer

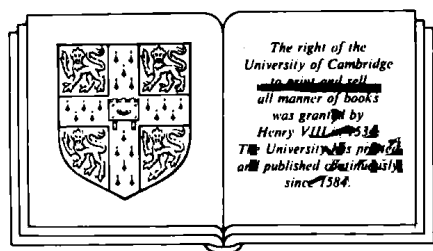
Linguistics: The Cambridge Survey

Edited by Frederick J. Newmeyer

University of Washington

Volume I

Linguistic Theory: Foundations



Cambridge University Press

Cambridge

New York Port Chester Melbourne Sydney

Published by the Press Syndicate of the University of Cambridge
The Pitt Building, Trumpington Street, Cambridge CB2 1RP
40 West 20th Street, New York, NY 10011, USA
10 Stamford Road, Oakleigh, Melbourne 3166, Australia

© Cambridge University Press 1988

First published 1988
First paperback edition 1989

Printed in Great Britain at The Bath Press, Avon

British Library cataloguing in publication data

Linguistics: the Cambridge survey.

Vol. 1. Linguistic theory: foundations

1. Linguistics

I. Newmeyer, Frederick J.

410 P121

Library of Congress cataloguing in publication data

Linguistics theory.

(Linguistics, the Cambridge survey; v. 1)

Includes indexes.

1. Linguistics. I. Newmeyer, Frederick J.

II. Series.

P121.L567 vol. 1 410 s [410] 87-24915

ISBN 0 521 30832 1 hard covers

ISBN 0 521 37580 0 paperback

Contributors to Volume I

- Stephen R. Anderson* Program in linguistics, The Johns Hopkins University
Avery D. Andrews Department of Linguistics, Faculty of Arts, Australian National University
Mary E. Beckman Department of Linguistics, The Ohio State University
Hans Basbøll Nordisk Institut, Odense University
Bernard Comrie Department of Linguistics, University of Southern California
Mürvet Enç Department of Linguistics, University of Wisconsin
Steve Harlow Department of Language, University of York
Laurence R. Horn Department of Linguistics, Yale University
Patricia Keating Department of Linguistics, University of California, Los Angeles
Paul Kiparsky Department of Linguistics, Stanford University
William A. Ladusaw Board of Studies in Linguistics, University of California, Santa Cruz
David Lightfoot Department of Linguistics, University of Maryland
James McCloskey Board of Studies in Linguistics, University of California, Santa Cruz
Alice ter Meulen Department of Linguistics, University of Washington
Geoffrey K. Pullum Board of Studies in Linguistics, University of California, Santa Cruz
R. H. Robins Department of Phonetics and Linguistics, School of Oriental and African Studies, University of London
Nigel Vincent Department of Linguistics, University of Manchester
Amy S. Weinberg Department of Linguistics, University of Maryland
Arnold M. Zwicky Department of Linguistics, The Ohio State University and Department of Linguistics, Stanford University

Preface

This is the first of four volumes that comprise the series, *Linguistics: the Cambridge survey*, a comprehensive introduction to research results and current work in all branches of the field of linguistics, from syntactic theory to ethnography of speaking, from signed language to the mental lexicon. Our goal has been to balance depth of coverage with ease of reference and affordability, and we have therefore settled on sixty relatively short chapters in four volumes as best being able to provide thorough overviews of the various subdivisions of the field.¹

This first volume, *Linguistic theory: foundations*, covers the internal structure of the language faculty itself, that is, it deals with the grammatical properties of language, both synchronic and diachronic. In addition to chapters covering the particular grammatical components such as the syntactic and the phonological, the volume contains several chapters which, as far as we know, are quite unique, on the *interfaces* between those components. It also delves into topics that arise in conjunction with research on the foundations of linguistic theory, such as the mathematical properties of grammars, the relationship between the fields of linguistics and the philosophy of language, and linguistic typology. A special feature is the appendix by R. H. Robins on the history of linguistics.

Volume II, *Linguistic theory: extensions and implications*, considers the evidence for, and the implications of, the core conceptions of linguistic theory. Most of its chapters take some aspect of linguistic study, such as the real-time processing of language, the representation of language in the brain, speech errors, first and second language acquisition, and so on, and examine the extent to which they provide support for the generativist approach to language. Other chapters explore the boundaries between linguistic theory and theories based in cognition and communication, and the volume closes

¹ Unfortunately, circumstances have prevented coverage of four topics that were originally slated to be represented by *Survey* chapters. Linguistics and artificial intelligence, linguistics in literary analysis, language and education, and linguistics and semiotics

with a debate between Derek Bickerton and Pieter Muysken on the theoretical implications of the properties of creole languages.

The fields of psycholinguistics and neurolinguistics are covered in Volume III, *Language: psychological and biological aspects*, which contains such chapters as 'Language perception,' 'Language production,' 'Second language acquisition,' and 'The biological basis for language.' Additionally, two interesting topics are covered that do not often find their way into surveys of the field: 'The evolution of human communicative behavior' and 'Linguistics and animal communication.'

Volume IV, *Language: the socio-cultural context*, covers sociolinguistics and fields allied to it such as anthropological linguistics, ethnography of speaking, the organization of discourse, and conversation analysis. Microsociolinguistics, macrosociolinguistics, and applied sociolinguistics are given equal representation, as well as the 'variationist' approach pioneered by Labov and Hymes's more 'ethnographic' orientation.

Needless to say, the field does not compartmentalize neatly into sixty discrete subdivisions; as a result, there is a certain amount of overlap between chapters, both within and across volumes. To the greatest extent possible, we have striven to ensure that where overlap of subject matter occurs, the overlapping chapters present different aspects of the phenomenon covered or present different viewpoints about the same aspect. The following paragraphs should help the reader choose in advance which of two (or more) overlapping chapters will contain material most directly meeting his or her immediate interest.

Two chapters deal with creole languages. In Volume II Chapter 14 comprises contributions by Derek Bickerton and by Pieter Muysken, as well as a debate between them. Derek Bickerton's contribution, 'Creole languages and the bioprogram,' defends the idea that creoles are in some sense 'closer' to universal grammar than other languages are. Pieter Muysken's contribution, 'Are creoles a special type of language?,' argues the contrary position, namely that creoles have no privileged theoretical status. William A. Foley's 'Language birth: the process of pidginization and creolization' in Volume IV, approaches these languages from a sociolinguistic standpoint.

The lexicon is the subject of Avery D. Andrews' 'Lexical structure' in Volume I and Karen D. Emmorey and Victoria A. Fromkin's 'The mental lexicon' in Volume III. The former studies its properties with respect to the other components of the grammar, the latter from the point of view of psycholinguistics.

Four chapters deal with language acquisition, two with first and two with second. The two chapters in Volume II, 'Grammatical principles of first language acquisition: theory and evidence,' by Thomas Roeper, and 'Second

language acquisition and grammatical theory,' by Suzanne Flynn, are focused almost entirely on the question of whether current central conceptions of linguistic theory are borne out in acquisition; the Volume III chapters, 'Where learning begins: initial representations for language learning' by Lila R. Gleitman *et al.* and 'Second language acquisition' by Ellen Broselow, are considerably broader in their scope. Also, Gleitman *et al.* focus on earlier stages of acquisition than does Roeper; the Flynn chapter is weighted primarily to the acquisition of syntax, the Broselow chapter to phonology.

Other chapters that treat similar phenomena in Volumes II and III are weighted to their grammatical dimension in the former volume, and much more broadly in the latter. Thus, the chapters 'Brain structures and linguistic capacity' by Mary-Louise Kean and 'Grammar and language processing' by Lyn Frazier in Volume II are more oriented to questions of linguistic theory than the Volume III chapters, 'Language production' by Merrill F. Garrett, 'Language perception' by Giovanni B. Flores d'Arcais, and 'Neurolinguistics: an overview of language-brain relations in aphasia' by Sheila E. Blumstein.

Finally, two chapters treat the field of discourse analysis. Ellen F. Prince's 'Discourse analysis: a part of the study of linguistic competence,' in Volume II, examines the boundary between grammatical principles and those grounded in communication, while the Volume IV chapter, 'The organization of discourse,' by Diane Blakemore, spells out the pragmatic principles that contribute to appropriate discourses.

We hope that whether you are a beginning student of linguistics or an established specialist in one of its subdisciplines, you will find in *Linguistics: the Cambridge survey* a wealth of information, insight, and challenging ideas.

Acknowledgments

Assembling a work of this scope and size requires the close collaboration of many. To those who offered their talents, their time, and their attention we owe our deep gratitude. Just as in a chorus, for the sound to have its effect, no single voice should stand out. So it is in this work. Contributors performed their parts admirably, providing thoughtful appraisals of their areas of research. Readers of these volumes will be indebted to the authors for their skill in guiding them through the paths of modern linguistics.

To those listed as members of the Board, we also owe our appreciation for their support and thoughtful counsel. We would like to express our gratitude to Ellen Eggers for preparing the subject indexes, and a special thanks goes to Mark Meade for shepherding the manuscripts, for holding contributors close to schedule, and for maintaining his equilibrium during smooth and rocky times.

*Frederick J. Newmeyer
and Robert N. Ubell*

Contents

Contributors vi

Preface vii

- 1 Generative linguistics: an overview *Steve Harlow and Nigel Vincent* 1
 - 2 Syntactic theory *James McCloskey* 18
 - 3 Lexical structure *Avery D. Andrews* 60
 - 4 Semantic theory *William A. Ladusaw* 89
 - 5 Pragmatic theory *Laurence R. Horn* 113
 - 6 Morphological theory *Stephen R. Anderson* 146
 - 7 Phonological theory *Hans Basbøll* 192
 - 8 Phonetic theory *Mary E. Beckman* 216
 - 9 The syntax–semantics interface *Mürvet Enç* 239
 - 10 The syntax–phonology interface *Geoffrey K. Pullum and Arnold M. Zwicky* 255
 - 11 The phonology–phonetics interface *Patricia A. Keating* 281
 - 12 Syntactic change *David Lightfoot* 303
 - 13 Morphological change *Stephen R. Anderson* 324
 - 14 Phonological change *Paul Kiparsky* 363
 - 15 Mathematical properties of grammars *Amy S. Weinberg* 416
 - 16 Linguistics and the philosophy of language *Alice ter Meulen* 430
 - 17 Linguistic typology *Bernard Comrie* 447
- Appendix: History of linguistics *R. H. Robins* 462
- Index of names 485
- Index of subjects 494
- Contents of Volumes II, III, and IV 499

1 Generative linguistics: an overview

Steve Harlow and Nigel Vincent

1.0. Background

In this introduction we review briefly the general pattern of development in generative linguistics during recent years and identify what seem to us to be major current themes and prospects for the future. Comparing the mid 1980s with the 1960s reveals an interesting pattern of similarities and differences. In general, the goal of the generative linguistic enterprise remains substantially the same – the search for explanatorily adequate characterizations of the properties of natural languages – although there is, as in the 1960s, considerable disagreement over the precise interpretation of this goal and the methods to be employed in pursuit of it.¹ At the same time, the growing maturity of the subject has led to a considerable shift in emphasis away from particularistic solutions to problems of linguistic analysis and towards a search for general theoretical principles from which the facts of particular constructions follow as consequences. See Chapter 2 of this volume for further discussion and examples from the domain of syntax.

Other territory familiar to a time-traveler from the 1960s is the material which forms the actual topic of linguistic theories and analyses. In syntax, for example, many of the constructions which formed a major focus of

¹ Although it is a hallmark of generative linguistics that particular descriptions should capture *linguistically significant regularities in the data* and that linguistic theories should be couched in such a form as to admit only grammars which permit such characterizations, there are, at the very least, significant differences in emphasis on the factors which are relevant to theory evaluation. Much theoretical linguistics, particularly but not exclusively under the influence of Chomsky, has come to see its central task as the formal modeling of the knowledge that native speakers may be hypothesized to have of their languages and the, possibly innate, faculty or faculties by which they are enabled to acquire those languages. More succinctly, on this view linguistics involves the study of grammars rather than of languages, and the investigation of the general form that grammars may take rather than of the contents of particular grammars (see Chomsky 1986: chs. 1 and 2 for recent discussion of one view of the implications of such an approach). Chomsky repeatedly stresses as a fundamental goal the task of explaining the problem of (first) language acquisition. (See Lightfoot in Chapter 12 of this volume for an articulation of this view and its consequences.) Linguistics in that view is thus considered to be a part of the study of human mental capacities. Lexical functional grammar stresses the importance of human linguistic processing for the form of linguistic theories and the representations they admit, while generalized phrase structure grammar, at least in Gazdar *et al.* (1985:5f), takes a position of studied agnosticism with respect to the connection between linguistics and psychology.

investigation in the 1960s are largely the same. Phenomena such as *wh*-movement, raising constructions, anaphora, passives, equi constructions, reflexives, etc. are as much a matter of current concern as they ever have been. Indeed, as Sag (1982:427) remarks:

Few linguists would take seriously a theory of grammar which did not address the fundamental problems of English grammar that were dealt with in the framework of 'standard' transformational grammar by such rules as There-insertion, It-extraposition, Passive, Subject-Subject raising and Subject-Object raising.

Yet there have been new constructions which have been the focus of much attention in recent years, e.g. 'parasitic gaps' (Engdahl 1983) and 'switch-reference' (Haiman & Munro 1983; Finer 1985). The former is a good example of the way the enormous growth in the range of languages investigated has had a considerable impact (cf. also Huang 1982 on Chinese, and Hale 1982 on indigenous languages of Australia, as well as several contributions to Bresnan 1982).

In another respect too the situation is remarkably similar to that of the 1960s: generative linguistics reveals a number of schismatic tendencies, just as it did twenty years ago.

At the same time, the scene is entirely different: the content of theoretical frameworks is radically different from the earlier period. In syntax, the early 1980s saw the development of serious nontransformational contenders in the field (prefigured by work by Michael Brame in the 1970s (Brame 1976, 1978): lexical functional grammar (LFG), generalized phrase structure grammar (GPSG) and, more recently, head-driven phrase structure grammar (HPSG). Even government-binding theory (GB), the contemporary direct descendant of the 'standard theory' (Chomsky 1965), bears little superficial resemblance to its progenitor.

1.1. Phonology

In phonology, *The sound pattern of English* (Chomsky & Halle 1968, henceforth *SPE*) sparked off a generation of research which focussed around three sorts of issue:

- (a) the nature of phonological alternations and the kinds of rules, conventions, and orderings that are necessary adequately to model morphophonemic systems;
- (b) the inventory of distinctive features and associated questions such as binarity;
- (c) a concern for suprasegmental phenomena following on from the ground-breaking *SPE* work on English stress.

As research progressed, it became clear that a number of fundamental assumptions of that program would have to be revised or even scrapped. In particular, the kind of derivational, rule-based format that worked well for classic types of morphophonemic alternation proved unnecessarily cumbersome and unilluminating when stress and kindred phenomena were investigated more thoroughly. Hence, the development of metrical trees and grids (Lieberman & Prince 1977) with subsequent controversies as to whether both are necessary or only grids (e.g. Prince 1983; Selkirk 1984b) or only trees (Giegerich 1985). For a general introduction, see now Hogg & McCully (1987). At roughly the same time, it was becoming clear that linear representations were not adequate for certain types of morphophonemic process, notably those involving tone, perseverative nasalization, segmental length, vowel harmony, etc. A single linear, vertically segmented phonological representation came to be replaced therefore by multi-tiered autosegmental representations (Goldsmith 1976), and more generally, the geometry of phonological representations came to be more central than the form of phonological rules. In all of this, a notable returner to the theoretical fold was the syllable, which was seen to fill a number of crucial roles: natural domain for the statement of phonotactic restrictions (Hooper 1976), possible domain for the scope of phonological processes (Kahn 1976), natural environment for the assignment of stress, and definer of certain types of phonological class (Selkirk 1984a). A concern with the form of representations (for which see now also Clements 1985 and Archangeli 1985, among others) has not however completely replaced an interest in derivational history, which has now been developed within the context of a structured, level-ordered lexicon in lexical phonology (see Mohanan 1986 for a survey and references and also the useful collection of papers in *Phonology Yearbook*, 2 (1985)).

1.2. Morphology

Perhaps inevitably, the interest in nonlinear aspects of phonology led to a concern with similar issues in morphology, usually identified as 'non-concatenative,' following McCarthy (1979, 1981). Serious attention to morphological phenomena such as reduplication, infixing, and the peculiar properties of Semitic-type 'interdigitation' of consonantal roots and vocalic affixes has produced a number of theories, again concerned as much with the form of the representation as with the rules required to generate the relevant output. The immediate future therefore seems to hold a period of taking stock and reconciliation in which the many new dimensions of phonological and morphological structure currently permitted are explored and tested one against the other. In other words, it remains for the disciplines of phonology and morphology to sort out where autosegmental, metrical, and lexical

approaches overlap and where they complement each other; where there are different analyses and where there are simply variant ways of stating the same new insights. This conclusion resembles quite closely the situation in syntax.

A common way of conceptualizing the form of a grammar has been a series of components. In particular, under the so-called 'standard theory' of transformational generative grammar – roughly that model which can be characterized by adding the view of syntax and semantics to be found in *Aspects of the theory of syntax* (Chomsky 1965) to the view of phonology expounded in *SPE* – it was assumed that a grammar consisted of a syntactic component, in turn divisible into phrase structure, transformational and lexical components, a semantic component, and a phonological component. In addition, Chomsky and Halle (*SPE*: 11) argued for the need for a 'readjustment component' to mediate between the output of the syntax and the input to the phonology. Within such a framework, theoretical debates might arise, as it were, 'component-internally,' about the directionality of phonological rules, the nature of phonological primitives, rule interaction (e.g. rule ordering, the cyclicity of transformations), the form of semantic rules, etc. Equally, however, disputes might center on the boundaries between components. Thus, it might be argued that certain boundaries were unnecessary, as when generative semantics challenged the need to recognize a 'division of labour' between syntax and semantics (see Newmeyer 1986 for a historical account). Alternatively, where a boundary was generally agreed to be necessary, the question might arise as to the right place to draw it. The conflict between 'abstract' and 'concrete' phonology (see Lass 1984: ch. 9, for a convenient summary and also Basbøll, in Chapter 7 of this volume) is essentially of the latter kind, dealing as it does with the proper assignment of material to the phonological and lexical parts of a linguistic description.

Whatever the subsequent importance of the component view in theoretical terms, it has left its mark in the way in which the discipline came to be institutionally subdivided. Whatever stance one takes on the abstract vs. concrete debate, one is a phonologist if one is professionally involved in questions of that kind and a syntactician if one's working life is spent, say, on questions relating to the form and functioning of transformations. Naturally, it is not precluded that some polymathic scholars should contribute to more than one subdiscipline thus defined. These divisions of the discipline not only affect matters of theory, but also more tangible things like the classification of books in libraries, the growth of specialized journals, the topics of conferences and workshops, and the hiring of academic staff in order to achieve balance and coverage of the discipline within a department. They also, therefore, determine the kinds of courses that are taught and the kinds of training and skills required of future generations of researchers. Terms such as 'phonology' or 'syntax' may therefore be taken to refer as much to

subdisciplines of theoretical linguistics as to subcomponents of the models of natural language such theoretical work proposes.

Naturally, the match between components and subdisciplines may change, and this has happened dramatically during the evolution of generative linguistics in the case of morphology. As long as this was a separately defined level, as it had been within a post-Bloomfieldian conception of language, it was reasonable to think of a particular publication as being about morphology or of a particular scholar as working on morphological issues. Within the standard theory of generative grammar, by contrast, it was difficult even to raise questions of morphology in a unified way, since the model tended to assign them either to phonology or syntax (see Anderson, in Chapter 6 of this volume, for further elaboration of this point). One of the more significant shifts of the last decade or so, dating from such papers as Halle (1973), Jackendoff (1975), and from Aronoff's (1976) seminal dissertation, has been the return of morphology as a separate domain of inquiry. Significantly, since the component view has at the same time been being eroded, this return is not necessarily, and not always, linked to the setting-up of a separate morphological component but rather to the (re-)recognition of a clear set of morphological problems and issues with their own terms of reference. For an exchange that highlights both a class of morphological problems and the nature of their integration into a formal model of language, see Anderson (1982) and Jensen & Stong-Jensen (1984).

1.3. The lexicon

The converse case of a component without an attendant sub-discipline is the lexicon. Under the standard theory view, the reason is not hard to find, since classical transformational grammar shares the Bloomfieldian view that the lexicon is the repository of idiosyncrasies and irregularities – as it were, the waste products of syntax and phonology rather than material fit for investigation in its own right. Yet the case of the lexicon is rather special, since it is the one component within the standard view that interacts with all others, and therefore may be involved in a range of what we characterized above as 'boundary' disputes. For example, within phonology any move to reduce the range of data regarded as predictable by rule entails a compensatory increase in lexical statements, so that a pair such as *verbose/verbosity*, if not related by the *SPE* rule of trisyllabic laxing, could be connected by a lexical redundancy rule (Jackendoff 1975) or a *via*-rule (Hooper 1976). Or again, the giving up of transformations as a means of establishing relations between *arrive* and *arrival* or between *send* when it subcategorizes for [___ NP PP] and [___ NP NP] ('dative movement') involves finding alternative means for connecting the related pairs in the lexical lists. Thirdly, it has been argued that one can

dispense with transformations such as affix-hopping if one treats inflected forms as whole items accessible via separate lexical entries. The logical cumulation of all these lines of argument would be to treat a grammar as one vast lexical store, with respect to which a variety of competing generalizations might be made. The generalizations would be statable in terms of the form of the representations in the store and of the connections that can be established between those entries.

1.4. Diachronic change

If we think of a grammar as involving at minimum a structured lexicon and at maximum separate syntactic, morphological, and phonological components, we might seem to be omitting two major areas of professional concern, namely phonetics and semantics. In one sense this omission is right, since the study of phonetics seems just as much the province of physics, engineering, and biology as it does of linguistics, and likewise semantics might be argued to be the proper responsibility of philosophers and logicians. On this view, the pure study of sound and meaning lies outside linguistics, which is concerned with the study of the nature of the relation between sound and meaning. An argument that such a state of affairs is more than an accident of the organization of academic institutions is to be found in the facts of language change. Phoneticians and semanticists study aspects of language that do not change over time, or at least only on the kind of time-scale that counts as evolution rather than as history. A reflection of this is the fact that this book does not contain chapters on phonetic or semantic change. Phonologists, morphologists, and syntacticians, by contrast, have to deal with the consequences of diachrony, as is evidenced in the fact that the present volume has parallel chapters on theory and change in each of these three sub-areas. Indeed, it is one of the more welcome of recent developments that data from linguistic change have been seen as pertinent to the development of proper models of language structure and not as areas simply of curiosity and anecdote.

The diachronic criterion can also be used to identify a theoretical issue whose importance is reflected in the chapter divisions of this volume, namely that of the syntax–phonology interface. Other interfaces are certainly conceivable; indeed in one sense, as we have already argued, the lexicon interfaces with all three of phonology, syntax, and morphology. Examples of problems at the morphology–syntax interface would be the status of clitics or the nature of periphrases. At the phonology–morphology interface we find issues relating to the productivity of certain types of alternations. The point is that in diachronic terms it makes sense to see an aspect of phonology being morphologized or a syntactic pattern such as compounding becoming lexicalized – indeed the terminology in *-ized* has precisely this dynamic implica-

tion. By the same token, however, phonology cannot become syntax or *vice versa*: we have here the projection to a different level of the Saussurean argument for the arbitrariness and, more important in the present context, the logical independence of the linguistic sign. It is not surprising therefore to see Pullum and Zwicky (in Chapter 10 of this volume) defending the inviolability of the syntax–phonology border, whereas in other areas the evidence of linguistic change always, and linguistic structure sometimes, leads to the abandonment of certain component boundaries within the model.

The past decade has thus seen the re-emergence of morphology as a topic for study in its own right, the concern being not so much – as was traditionally the case – with the linear structure of morphologically complex forms, as with the ways in which morphology is nonlinear. This latter issue has been taken up either at the level of representation, as in McCarthy's work already alluded to and as in Marantz's (1982) classic study of reduplication, or at the level of morphological rules, as in Anderson's attempt (1982 and this volume) to revive the classical word-and-paradigm model. This concern with nonlinearity in various guises represents a convergence with developments in phonology, where the rise of metrical and autosegmental models has promoted the treatment of a wide variety of phenomena as either entirely nonlinear (e.g. tone and perseverative nasalization; see Goldsmith 1985; Pulleyblank 1986), or as only accidentally linear, as in the suggestion that what makes a consonant a consonant is not any intrinsic property of consonantality but its occurrence in one of the non-nuclear positions in the syllable (onset or coda). Once things are approached in this fashion, it is possible in phonology, as already in syntax, to adopt a declarative style of formulation, giving conditions on possible syllable constituencies or on admissible metrical trees or grid configurations. Classic principles such as cyclicity, already a dead-letter in syntax, now become subsumed as part of the notation, while other kinds of rule ordering are eliminated at the expense of component ordering, e.g. syntax before morphology, or level ordering, as in the lexical phonology approach (Mohanan 1986). This multi-tier approach, which has come in recent years to seem so appropriate in the domains of morphology and phonology, has even begun to raise its head in syntax, most notably in Sadock's (1985) intriguing proposals for what he calls 'autolexical syntax,' in which the morphological and syntactic aspects of particular constructions may be represented on different tiers. The recent development of so-called double analyses in GB (e.g. Zubizarreta 1985) indicates another area where form of representation is taking over some of the descriptive and analytic burden from sequential, rule-based approaches.

1.5. Syntax

In syntax there are still substantial differences of opinion about the classification of a range of linguistic phenomena and, hence, concomitant disagreement about the mechanisms or principles responsible for them. Government-binding theory, for example, views pronominal anaphora, reflexives, control, raising, *wh*-movement, and quantifier scope as different manifestations of a common set of principles, and research in that paradigm has been largely concerned with the investigation of the general principles governing the distribution of different subtypes of NP involved in these constructions (anaphors, pronominals, traces, R-expressions) with the goal of providing a unified theory. Other paradigms dispute the interpretations of the data which drive the search for these generalizations (cf. Pullum & Borsley 1980), with consequent differences of opinion about the generalizations to be captured.

Nonetheless, despite these often profound disagreements, there has at a global level been a considerable degree of convergence in several domains over the past decade or so. Among the areas that one can point to is a general agreement that linguistic systems are modular. That is to say, the complex of linguistic behavior that we observe is the consequence of the interaction of a number of (semi-)independent systems (e.g. phonology, morphology, syntax, semantics, pragmatics (cf. Chapter 10), each of which is characterized by its own primitives and operations. This is in striking contrast to, and is arguably a reaction against, the position taken by generative semantics in the 1960s (cf. Newmeyer 1986).

McCloskey, in Chapter 2 of this volume, draws attention to the often covert agreement in metatheoretical assumptions. He points, for example, to a general shift from procedural to declarative styles of description and the abstraction away from particularized analyses towards more general formalizations, from which the particular facts fall out as consequences, as noted above. Declarativeness is particularly striking in LFG and GPSG, but it is just as much a feature of GB in terms of well-formedness conditions on levels of representation. Another more specific aspect of convergence is the emphasis on the local nature of syntactic phenomena. Even syntactic constructions such as 'unbounded dependencies' are now viewed by most theories as a manifestation of the sum of a set of local conditions. Theories differ considerably at the implementation level over how this locality is to be represented and, indeed, over the domains over which it holds (see Chapter 2 for details), but it is difficult to conceive that future developments will lead to this view being abandoned.

The role of the lexicon is something which has grown in importance in syntax as well as in phonology/morphology. One can identify two main