

langue, il est normal que nous retenions la double articulation et écartions les faits prosodiques." (And, since after all we are searching for that which characterizes constantly all that we wish to call a language, it is normal that we should retain double articulation and discard the prosodic facts.) This is not only bad methodology, it also contradicts his own treatment of prosodic data, e.g., on p. 50 or pp. 140-61, where they are clearly treated as linguistic. On the whole, the theory is too vague, ill-defined and confused to be worthy of serious discussion.

The phonological part is mainly in the Prague tradition, but unoriginal and at times just wrong. One encounters statements like (p. 147): "L'accent est là pour toute autre chose, et s'il est, dans un mot donné, sur telle syllable et non sur telle autre, c'est simplement parce que l'enfant a appris à prononcer le mot ainsi." (The accent is there for quite a different reason [i.e., than to distinguish one word from another], and if, in a given word, it falls on one syllable rather than on another, this is simply because the child has learned to pronounce the word that way.)

If Martinet deserves credit for other, less theory-oriented, work he has done in the past, it looks as though he has used it all for his theoretical writings.

*Magdalen College, Oxford*

PIETER A. M. SEUREN

Nicolas Ruwet, *Introduction à la grammaire générative* (= *Recherches en Sciences Humaines* 22). Paris, Librairie Plon, 1967. 448 pp.

This is a very solid piece of work. It provides the French reader with a largely adequate introduction to generative transformational grammar up to 1965 (Chomsky's *Aspects* has been taken into account, but not fully integrated).

The book has six chapters. Chapter I, entitled, perhaps slightly inappropriately "Introduction: Les tâches de la linguistique" ('Introduction: The Tasks of Linguistics'), deals with general theoretical notions, such as the concept of explanation in linguistics, competence and performance, sound and meaning, grammaticality, grammar as a finite set of rules, recursivity, creativity (as a technical term), structural description, general linguistic theory, universals of language, procedures of discovery, decision and evaluation. This chapter is largely based on pre-1965 literature, especially on *Syntactic Structures*.

Chapter II, "Quelques modèles syntaxiques élémentaires" ('Some Elementary Syntactic Models'), deals with the notion 'level of representation', Finite State Grammar, Phonological Syntax, the theory of substitution frames, Martinet's Functional Syntax. All these models or proposals are rejected on grounds well-known from the literature.

Chapter III is entitled "Le modèle syntagmatique" ('The Constituent Structure Model'). It gives the principle of Immediate Constituents and the notion of Phrase Marker. It is shown that Phrase Markers are the result of rewrite rules, and various types of rewrite rules are discussed in connection with their weak and strong generative power. The well-known limitations of Constituent Structure Grammar are exposed in an orthodox way.

Chapters IV and V give an exposé of the transformational principle ("Le modèle transformationnel I, II"). Here we find a lengthy discussion of Chomsky's treatment of auxiliaries in *Syntactic Structures*, together with an application to French. We find something about the order of transformations, the distinction between obligatory and optional, singular and generalized transformations, kernel sentences, — with illustrative examples, mostly taken from French, interspersed everywhere. It is shown that some notion of transformation, either latent or patent, is present in the works of Jespersen, Blinkenberg, Bally, Tesnière, Benveniste and Harris. Then, in Chapter V, the technicalities are discussed: structural analysis and structural change, the principle of recoverability, the problem of Derived Constituent Structure, especially in connection with permutation and discontinuous constituents. Then ordering among transformations comes up again, and also the notion of level. Finally, there is a rudimentary discussion of the problem of lexical insertion, very much along the lines of *Aspects*. This section also contains, surprisingly, a few pages on generative phonology. (The connection consists in the analogy, posited by Chomsky in *Aspects*, between semantic and phonetic features.)

The title of Chapter VI, "Conclusion. Structure profonde et structure superficielle", is, in part, a misnomer. It does not really give any conclusions, but presents the concepts of deep and surface structure in relation to semantic interpretation. It also contains a rather loosely structured section on Glossematics, Tagmemics and Port Royal, and ends up with a summary presentation of the concept of linguistic universals, where Chomsky's distinction (1965) between formal and substantive universals is explained. One has the impression that this chapter was added in order to catch up with what were the latest developments

by the time the book was written, without changing too much to the already existing text.

The book has an index of proper names, an index of subject matters and a detailed list of contents at the end. It also has an ample bibliography of 16 pages.

Inevitably, introductory textbooks of TGG become rapidly outdated. It would be inappropriate, therefore, to treat this book, which was written in the middle sixties, as a contemporary publication. It is very much to the writer's credit, however, that he has succeeded in giving a unified account of early TGG and its immediately preceding history. The book gives much more than a cut and dried summary of the principles of TGG. It clearly shows the connections with pre-TGG linguistics, both in America and in Europe, emphasizing the continuities as well as the discontinuities. Bibliographical references in the text are plentiful and thorough.

Sometimes one feels that the burden of the past is too heavy in this book. Too often a particular argument is interrupted by lengthy discussions of non-transformational authors, without there being any apparent need for the clarity of the argument. On the whole, the organization of the book is not very tight. Although it gives a great deal of very useful information to the beginner, the presentation is not systematic enough. At times, as in section 5 of Chapter VI (pp. 344-55), one has the impression that the author proceeds by free association. This is one criticism that can be made of the book.

Another general criticism is that the book still suffers, to some extent, from the European tradition of learned scholarship in the human disciplines, which has its charm and its merits, but does not excel in rigour or explanatory conviction, — apart from some glaring exceptions such as 19th Century Comparative Philology. This criticism is especially valid for Chapters I and VI. Although the concept of scientific explanation is touched upon at the beginning of Chapter I, no sufficient weight is given to the nature and position of the empirical data. Chapter I presents TGG mainly as an abstract theory, but fails to carry conviction due to a lack of critical empirical evidence. TGG might thus be taken by an innocent reader as yet another speculative theory of language: its connections with other, highly speculative, theories of language are dwelled upon at great length, but its empirical superiority does not stand out very clearly. The nature of linguistic data, the importance of critical evidence, and the criteria of adequacy for a grammatical description do not occupy the prominent place they deserve in a theoretical exposition. What the author says on p. 81, at the end of Chapter I, is regrettably true:

Cette discussion peut sembler assez abstraite dans la mesure où je n'ai encore présenté aucun modèle de grammaire générative. ('This discussion might seem rather abstract, insofar as I have not yet presented any model of generative grammar.')

This lack of emphasis on critical evidence is apparent throughout the book. The result is that the student will find a great deal of information, but will not get a clear idea of HOW TO CONDUCT A SYNTACTIC ARGUMENT. Factual knowledge is, of course, necessary for a student of linguistics. But it is much more necessary for him to acquire the 'hang' of syntactic argument. Without that he will not be able to do any fruitful original work himself. It must be admitted, however, that none of the introductory textbooks which proliferate on the market today fulfills this aim. Teachers of linguistics have to refer their students to individual papers by such men as Chomsky, Lees, Klima, Ross, Lakoff, Bach, McCawley, and many others, to provide instances of how to make progress in linguistic theory and description.

The book is largely reproductive in the sense that it reflects little original work by the author, — apart from his applications of Chomsky's analyses of English grammar, in particular of auxiliaries, adverbials and nominalizations, to French. But, on the other hand, it enables the French reader who also understands English, to tackle the original literature with a reasonable chance of success.

Let us now have a look at a few details that call for comment. On p. 18 we read:

C'est la performance qui fournit les DONNÉES d'observation — CORPUS de toutes sortes, écrits ou oraux (conversations enregistrées, interviews, récits, articles de journaux, textes littéraires, etc.) — qui permettent d'aborder l'étude de la compétence. ('It is performance that provides the DATA of observation — a CORPUS of all kinds of utterances (recorded conversations, interviews, stories, newspaper articles, literary texts, etc.) — which allow us to make a start with the study of competence.')

As a definition of the linguistic data which reflect competence this is wrong. Indeed, this quotation demonstrates the unclarity, mentioned above, with regard to the nature of linguistic evidence. In actual practice, the author does not rely on this sort of data, but, quite properly, on judgements provided by native speakers. He even says so explicitly on p. 42:

Si on se refuse à tenir compte des 'jugements de grammaticalité' des sujets parlants ... on se condamne à 'détruire l'objet même' de la linguistique. ('If one refuses to take into account 'judgements of grammaticality' of native speakers ..., one is condemned at 'destroying the very object' of linguistics.')

"L'étude du contexte, en effet, fait partie de celle de la performance." ('The study of context, in fact, is part of the study of performance.'). we read on p. 19. This was indeed the prevalent opinion in the days the book was written. Meanwhile, however, some linguists have come to see that linguistic competence comprises also knowledge of the conditions of appropriateness for a sentence in context or situation.<sup>1</sup> But, of course, one cannot blame the author for not taking into account a concept which is only beginning to emerge in these days. The same holds for a great many other points of view which are taken for granted by the author, but which are now open to renewed scrutiny.

On pp. 23-25 the author criticises European structuralists, such as de Saussure, Hjelmslev and the Prague School, for oversimplifying the relations between form and meaning. It is, in a sense, characteristic for the author's position, as signalled above, that he does not mention the great, overriding difference between these linguists and the transformationalists. This difference is that in the works of the former no consistent notion is found of an explanatory theory or hypothesis, to be tested empirically and on grounds of simplicity. They did have a notion of 'description of linguistic competence' (see, e.g., de Saussure, *Cours*, p. 128), but they mistook mental structures and processes, the object of description, for observational data. Hence the vexed issue of introspection, which is based on nothing but an unclear notion of linguistic evidence. The author is not very clear on this, as appears, for example, from p. 56, where he gives as a criterion of adequacy that a grammar must define with precision such notions as 'grammatical function' and 'grammatical category'. There can be little doubt that language happens to be such that notions such as these must, in fact, be defined with precision, but this is not tantamount to saying that such definitions can be used as a criterion for adequacy.<sup>2</sup>

<sup>1</sup> Such conditions are called presuppositions.

<sup>2</sup> A similar unclarity about the nature of data and introspection is found in a recent little book by J. Lyons, called *Chomsky* (London, Fontana, 1970), pp. 62-63, where he says that "in his later publications, Chomsky attaches far less importance to the notion of 'simplicity', and gives correspondingly more weight to the argument that transformational grammar reflects better the 'intuitions' of the native speaker and is semantically more 'revealing' than phrase structure grammar ... What we cannot represent within the framework of a phrase structure grammar, ... is the fact (and let us grant that it is a fact) that pairs of sentences like *The man hit the ball* and *The ball was hit by the man* are 'felt' by native speakers to be related, or to 'belong' together in some way, and have the same, or a very similar meaning." Lyons adds a footnote in which he quotes Chomsky as telling him that "he is not himself aware of any change in his attitude over the years with respect to the role of simplicity measures and intuition", but he does not seem to trust Chomsky's own words about himself. By the middle

The presentation given on p. 67 of procedures of discovery, decision and evaluation is perhaps slightly off the mark. Chomsky made this very important distinction in Chapter VI of his *Syntactic Structures*, where these procedures represent different GOALS OF LINGUISTIC THEORY. For Ruwet, however, they are three different ways of tackling the problem of JUSTIFICATION OF GRAMMARS:

En principe, cette tâche de justification des grammaires peut être conçue de trois façons différentes (cf. Chomsky, 1957a, ch. VI). ('In principle, this task of justification of grammars can be conceived of in three different ways.')

I am not sure that Ruwet's presentation would not avoid misunderstanding on the part of beginning students.

On pp. 154-56, 174-79, and 280-81, an adequate and very clear account is given of the problem of discontinuous constituents. The existing literature on this subject is aptly summarized. It is shown that what are discontinuous constituents in surface structure are best handled as ordinary continuous constituents at some underlying level, on which some permutation transformation operates. The derived constituent structure, after application of the permutation rule, is presented in the usual way (p. 280), according to a principle which is (P. Postal, *Constituent Structure* [1964], p. 94, note 116): "roughly ... to attach all branches broken under permutation to the next higher node, all other structure being preserved intact." According to this principle, the following would take place (Ruwet p. 280); see diagram 1.

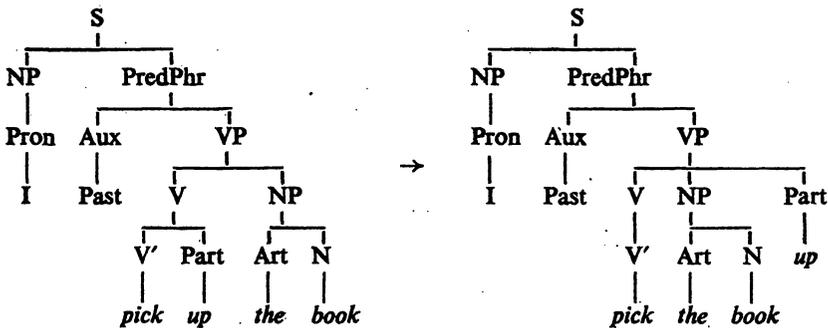


Diagram 1

It is true, as Ruwet says, that thus permutations tend to diminish the number of binary branchings and to increase that of multiple branchings

sixties Chomsky began to lay more stress on the fact that a grammar is a description of competence, i.e., of mental structures and processes (*Aspects*, pp. 8, 24), but he never proposed the view that these structures and processes were empirical data.

(p. 281). But neither Ruwet nor any other author gives a justification of this principle. The difficulty is that it would lead to some very awkward results in certain cases.

Let us take the ordinary Latin sentence:

- (1) *Invasit Caesar urbem.*  
 ('Caesar invaded the town.')

It would, presumably, have, at some level, an underlying structure of roughly the form represented in diagram 2 (disregarding irrelevant details).

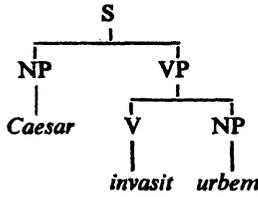


Diagram 2

According to the principle quoted and illustrated above, this would then be transformed into diagram 3,

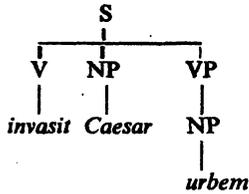


Diagram 3

which cannot be correct, since *urbem* would be both NP and VP. To say that Latin has underlying structures of a different sort, such as in diagram 4,

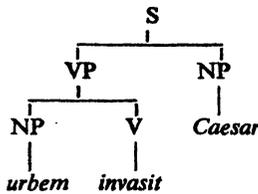


Diagram 4

would not help very much. Although sentence (1) would come out all right, sentence (2) would not:

- (2) *Urbem Caesar invasit.*

since it would have the derived P-marker of diagram 5.

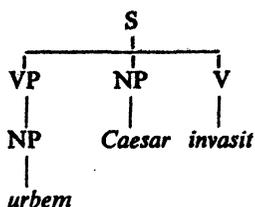


Diagram 5

Furthermore, if we apply Ross's 'scrambling rule' (J. R. Ross, "A Proposed Rule of Tree-Pruning" in Reibel and Schane (eds.), *Modern Studies in English* [1969], 292), we get rather different surface structures according to the order in which constituents have been moved about. Suppose, for example, we derive (4) from underlying (3):

(3) *Dux invasit urbem cum magnā catervā.*

(4) *Magnā cum catervā urbem dux invasit.*

(Both: 'The commander invaded the town with a large band of men.')

Let us give the underlying P-marker for (3) as in diagram 6.

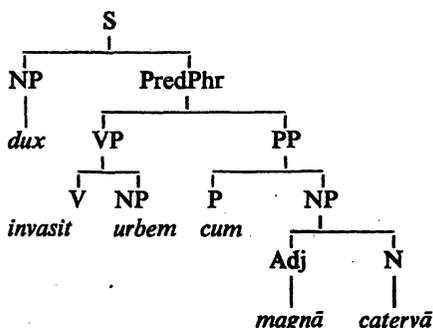


Diagram 6

By application of the scrambling rule in different orders we can derive, e.g., diagram 7 or 8,

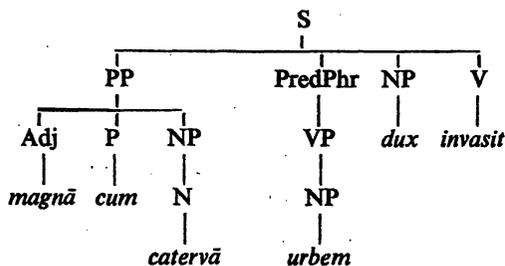


Diagram 7

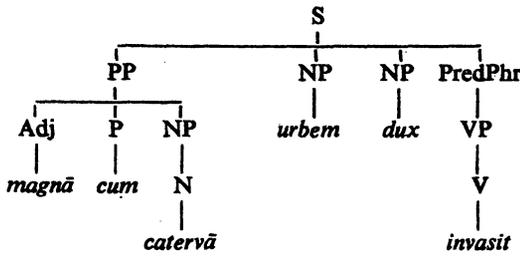


Diagram 8

without there being any particular justification for either. If we consider the sentence:

(5) *Magnā urbem dux invasit cum catervā.*

the possibilities multiply. (6), however, is ungrammatical:

(6) *\*Magnā cum urbem dux invasit catervā.*

What would happen to the example Ross quotes from Horace (*Carmina* I, 5), the reader may try for himself:

(7) *Quis multā gracilis te puer in rosā  
perfuses liquidis urget odoribus  
grato, Pyrrha, sub antro?*

(‘What slender boy, drenched with perfumes, is making love to you, Pyrrha, on a heap of roses, in a delightful cave?’)

It is, presumably, derived from:

(8) *Quis gracilis puer, perfusus liquidis odoribus, urget te, Pyrrha,  
in multā rosā, sub grato antro?*

The arbitrariness and multiplicity of the possible resulting surface structures of (7) shows better than anything else that we have here an area of transformational grammar which needs revision and further exploration. The rules and principles proposed up to the present day do not explain the ungrammaticality of (6), nor do they solve the problems of indeterminacy or incorrectness of surface structures. A partial answer might be provided by considering crossing lines in derived P-markers. They would require a more elaborate apparatus for an alternative notation by means of labelled bracketing. But this is only a minor point. Such lines would clearly show up the discontinuity of certain surface structure constituents. They would also show the difference, in surface structure, between discontinuous constituents and other constituents which were also assigned their position by means of a process of permutation, but

which are not considered to be discontinuous parts of larger constituents. The subject of a passive sentence, for example, is clearly not a discontinuous element of VP, to which it originally belonged. According to current practice, however, it should be called discontinuous in surface structure. Of course, this digression is not meant as a criticism of Ruwet's book. It is the clarity of his exposition that led to a discussion of this problem.

On p. 271 the device of using + or — as concatenation signs of elements in a Structural Analysis is mentioned. Here, the discussion is not entirely adequate, since, with this device, X — Y — Z would not apply to diagram 9, as is implied by the author.

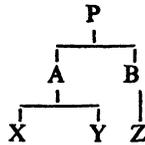


Diagram 9

Finally, a few points relating to Chapter VI. To seek a connection between the hypothesis that meaning is entirely determined at deep structure level (the Katz-Fodor hypothesis, 1964) and Saussure's principle of the arbitrariness of the linguistic sign, as is done on p. 321, seems rather far-fetched. Then, on p. 330, the impression is given that there is some logical dependency between the idea of phonetic interpretation operating exclusively on surface structure and that of semantic interpretation operating exclusively on deep structure. In fact, however, the two hypotheses are independent.

The few critical remarks that I have made do not imply any lack of appreciation for this book. As I said in the opening section of this review, it is a very solid piece of work. It can be used profitably with beginners, who will find a great deal of essential information in these four hundred pages.

*Magdalen College, Oxford*

PIETER A. M. SEUREN

Martin Kloster Jensen, *Språklydlaere: Fonetikk, Fonemikk*.  
2. reviderte utgave, Bergen-Oslo, Universitetsforlaget, 1969.  
124 S.

Das vorliegende Buch soll als Einführung in die Phonetik und Phonemik