

TRANSFORMATIONAL GRAMMAR, PSYCHOLOGY, and FOREIGN- LANGUAGE TEXTBOOKS

WALDEMAR MARTON

Adam Mickiewicz University, Poznań

The application of a particular linguistic theory to the preparation of foreign language teaching materials may go in two directions and it may concern two quite different problems. First, it may concern the content of a pedagogical grammar of the target language, i.e. the body of linguistic facts that we want to teach our students. Second, it may concern the methods and pedagogical procedures which we propose to employ in order to teach this content. It has been perhaps a curious paradox that until quite recently the linguist has been mostly preoccupied with this latter problem, which is the proper field for the psychologist, and whilst eagerly trying to find out how to teach has forgotten his real job, which is to decide what should be taught. In the United States most linguists interested in foreign language teaching have rather uncritically adopted the assumptions of one particular theory of learning, namely the behaviouristic one, based largely on Skinner's statements about the nature of learning and on his model consisting of stimulus—response—reinforcement elements. These linguists, or applied linguists as many of them call themselves, have come to believe that the unconscious control of a set of grammatical rules is best acquired merely by a frequent and reinforced reproduction of sentences illustrating the rules. The theory of foreign language teaching which they eventually worked out and which is generally known as *the audiolingual habit theory* has become world-renowned and has been the "official theory" in the United States and many other countries until the present day. We might remark here that in Poland, on the whole, this theory has not been so uncritically and enthusiastically adopted as elsewhere, but most of our educationalists responsible for modern foreign language teaching may be associated with this orientation. Over the last few years this theory has started to be strongly criticized, first of all in the United States, where it was born. It has been attacked by psychologists and especially by psycholinguists, as well as by teachers and students themselves, who discovered that even the most consistent and arduous application of the theory brought results which fell short of the promised dramatic advances in foreign language learning. Generally speaking, it has been discovered that the practice

performed automatically may be only very little helpful towards the acquisition by the learner of a linguistic competence somehow similar to that of the native speaker. As a result of this criticism, a new language teaching theory has emerged in the United States and other countries, which is known as *the cognitive code-learning theory* and which is a somewhat more modern and more sophisticated version of the old grammar-translation method.

After this sketching of the present situation in the field of foreign language teaching, we may pass on to the essential question of whether and how the undoubtedly most fashionable linguistic theory of today, the theory of transformational generative grammar, can be applied to the construction of pedagogical grammars. The answer to this question largely depends on our own evaluation of this theory. In the writer's opinion, and he shares it with a great many linguists, transformational grammar offers the best and the most adequate description of natural languages, and, accordingly, a pedagogical grammar derived from a scientific grammar based on this theory will be most useful both for the producer of teaching materials and for the learner. It seems, for instance, that such fundamental transformational concepts as those of deep and surface structures cannot be omitted in any presentation of the structure of English to the learner. How else shall we be able to explain the difference between such pairs of superficially identical—in—structure sentences as

(1) John regards Bill as incompetent.

and

(2) John strikes Bill as incompetent.

We cannot explain the difference between them as a function of the lexical meanings of the verbs *regard* and *strike*, since other syntactic considerations convince us that the difference is inherent in something else, so that we can make passive the first sentence only, getting

(3) Bill is regarded (by John) as incompetent while

(4) Bill is struck (by John) as incompetent is ungrammatical.

We all feel intuitively that surface structure is not enough, that there is "something" underlying our utterances, and if we want to teach a foreign language effectively, we must help the learner to develop a competence in his target language that will, ideally, closely resemble that of the native speaker. This competence must enable the learner to tell a grammatical sentence from an ungrammatical one, to assign the proper structural description to a sentence, to interpret syntactic ambiguities, etc. So far only the concepts provided by transformational grammar are able to present and explain these and other elements of linguistic competence. It is also the only grammatical description that can convincingly introduce and present the intuitively

felt relations between sentences of a language in terms of their derivation from one another through transformational operations; it is the only grammar that describes the generation of sentences as a dynamic process much closer to other natural phenomena than the process of filling slots in some static and unrelated sentence patterns.

For these and many other reasons I think that any pedagogical grammar that must be somehow incorporated into a language textbook for foreign students must be prescribed by transformational grammar. As to its precise form and size, it is the linguist's job to work it out, although here the psychologist must also contribute by telling the linguist, for example, how much can be learned and retained by the learner in a given period of time.

As to the second problem worrying the applied linguist, namely, how this grammar should be taught in the most effective and economical way, transformational grammar has little to contribute to the theory of learning or teaching, as it does not claim, in keeping with any other linguistic theory, to account for the processes of sentence formation as they actually take place in the human mind.

Here the educationalist preparing teaching materials would do much better if he listened to what the psychologist, and particularly the psycholinguist, wants to tell him. Psycholinguists in the United States and in the Soviet Union have both researched and experimented in foreign language teaching pedagogy and the results of their experiments are often startling and confusing both for the applied linguist and the foreign language teacher. I might refer, for example, to the now famous Scherer—Wertheimer experiment, which resulted in the observation that a group of students taught for two years by the traditional grammar-translation method attained the same command of English in its four basic skills as a group of students taught by the audiolingual method, with the teaching being of a very high quality in each case (Scherer, Wertheimer 1964).

Of course, such experiments are not always quite reliable and should not exert too much influence on our educational policy, but they cannot be totally disregarded, either. In this way, dissatisfied both with the traditional method of teaching and with his confidence in the new approach badly shaken, the foreign language methodologist finds himself in the predicament that is quite well described by one of the leading American psycholinguists, Sol Saporta (1966 : 86), who writes, "Language is rule-governed behaviour, and learning a language involves internalizing the rules. But the ability or inclination to formulate the rules apparently interferes with the performance which is supposed to lead to making the application of the rules automatic. (On the other hand) all models of learning based exclusively on imitation and reinforcement fail to account for the ability of anyone who has mastered a language to produce and understand novel utterances."

What reasonable attitude can thus be adopted by a contemporary textbook writer facing this paradoxical problem? To answer this question, we must notice that, first of all, the psycholinguist indulging in his destructive criticism has as yet little to offer in the line of constructive propositions, and that his critical remarks concern the followers of the pure and undiluted audiolingual habit theory. But still, even with these reservations, it seems that certain facts concerning foreign language learning have been extensively proved by psychological research and experiments, and they can be neither denied nor dismissed. These facts, as presented by another American top psycholinguist, John B. Carroll (1966 : 104-5), are as follows:

“1. The frequency with which an item is practised per se is not so crucial as the frequency with which it is contrasted with other items with which it may be confused. Thus, the learning of items in “pattern-practice” drills would be improved if instead of simple repetition (of one pattern — addition mine) there were a constant alternation among varied patterns.

2. The more meaningful the material to be learned, the greater the facility in learning and retention. The audiolingual habit theory tends to play down meaningfulness in favour in producing automaticity.

3. Other things being equal, materials presented visually are more easily learned than comparable materials presented aurally.

4. In learning a skill, it is often the case that conscious attention to its critical features and understanding of them will facilitate learning.

5. The more numerous kinds of association that are made to an item, the better are learning and retention.”

Taking all of these factors and facts into consideration, the writer would like to present some of his own propositions concerning the content and form of the grammatical component of a good modern foreign-language textbook. The most important of these propositions are listed below.

1. As to their content, grammatical components of textbooks should be based upon transformational scientific grammars and should utilize such concepts as deep vs. surface structure, derivation of one structure from another, transformational operations such as permutation, deletion, etc. Of course, we need not and even must not introduce the whole formal apparatus usually associated with transformational grammar, but a short and simple formula utilizing some easily remembered symbols might often be helpful to facilitate understanding the point and remembering the rule.

2. After the presentation of new structural material, grammatical explanation must follow before the drilling starts. This explanation must find its place in the textbook, and it also should be done by the teacher in the classroom. Of course, the teacher need not give a long lecture, he may elicit the proper rule from his students, but he should explicitly point out the role and function of a given structure within the system of the target language, and, particularly,

contrast it with other structures with which the students might confuse it.

3. Transformational drills consisting in various manipulations of a source structure and leading to the derivation of new, related structures should play a particularly important role among other drills and exercises, in that they contribute to the development of generative apparatus in the learner and make him familiar with the flexibility and complexity of linguistic structures. Of course, we cannot introduce too many drills of this kind at the beginning stage, but exercises of this sort are particularly useful at the advanced level. Usually we are at a loss concerning what should be taught in advanced courses and we mostly concentrate on enlarging the students' vocabulary, neglecting the systematic training in more complex syntactic structures, with the deplorable result that very often the student on an advanced course is associated with a certain fluency and a fairly large vocabulary, but with very bad grammar. It is also noteworthy that transformational exercises of this kind largely make for the economy of time, as they may practise a few related structures almost simultaneously, in one exercise.

4. Exercises drilling discrimination between superficially similar but in fact different structures (here not only purely syntactic but also relevant prosodic features should be included) will constitute another major block of drills in the textbook, along with exercises drilling contrasting structures within the target language. Drills of this kind are usually constructed in such a way that the learner faces a certain choice and has the possibility of making a mistake.

5. All these drills and exercises should be either at once or at some later stage, after achieving a certain manipulatory facility, associated with certain typical situations in which they are usually used. Here we see the importance of audio-visual aids accompanying the textbook, as the more meaningful associations a practised structure has, the better it will be learned. It must be admitted that it is not always clear how a given structure can be situationally taught in class. Perhaps one of the best methods which is usually, although not always very satisfactorily, followed by textbook writers is to have a few practised structures copiously illustrated and shown in operation in a text (preferably a text in the form of a story, not a dialogue). Then through questions and answers on this text, summarizing it, and other similar procedures, the structures could be practised in situations.

6. The preparation of the grammatical component of the textbook should be based on a contrastive linguistic analysis of the target language and the native language of the learner. It is still very controversial whether students should be made explicitly aware of differences and similarities holding between their native tongue and the target language, but contrastive analysis ought to draw the attention of the textbook writer to what particular structures and contrasts must be especially emphasized and drilled. For instance, a great

difficulty for the student appears to be partial correspondence of a structure in his native language with some structure in the target language. This partial correspondence is often manifested in this way that one item in the native language has as its equivalents two contrasting items in the target language. This is the case of the Polish modals, which can be followed only by the infinitival forms of verbs, whereas the corresponding English modals can be followed either by the main verb alone or by the perfective aspect of the main verb.

Having read all these suggestions, the reader might remark that at least some of them have actually been realized in various modern textbooks of English as a foreign language. But we surely cannot expect that the application of a particular linguistic or psychological theory to language teaching will work the miracle of solving all our problems or that it may radically differ from what many good language teachers have more or less consciously known and practised for years. It is enough if it helps the teacher to organize his experience in a more systematic way and makes him modify at least some of his procedures and techniques.

Another question which may be raised is whether all the above mentioned propositions are just wishful thinking, or whether we already have a textbook directly based on the theory of transformational grammar. It is the writer's pleasure to announce here that such a textbook has already been published. Its title is *Modern English: A textbook for foreign students* and it was written by William E. Rutherford of the University of California, Los Angeles (1968). This textbook is not without its shortcomings and certainly cannot be considered an ideal one, but many of the above stated propositions are realized in its grammatical component. As the book has not yet been widely circulated and may be unknown to many readers of this paper, it seems worthwhile to present its structure very briefly and then to give some examples of drills and other grammar exercises which seem to be typical of the author's approach and which may also serve as illustrations of some of the suggestions listed above.

The textbook is not for the beginning stage of language learning, but rather for the intermediate or fairly advanced level. Let us now listen to what the author tells us in the Preface about the general structure of the book. "The book contains twenty units, preceded by two preliminary units of review material. Each unit is in three parts. The first part begins with a dialogue, which is the source of all the material to be treated in the unit. Utterance discrimination and utterance contour drills give practice in phonological perception by contrasting items from the dialogue with structures previously learned. A short passage for memorization is based directly on the dialogue. Finally, idiomatic phrases which may be new to the student are drilled in varying contexts. The second (and the most essential) part of each unit contains five numbered grammar sections. Each grammar point is introduced

by presentation of an example from the dialogue and a set of replacement drills. The point is discussed briefly in an explication in terms of basic transformational concepts and is then manipulated through a wide variety of oral drills in the verification. The third part contains a short reading selection, related to the dialogue through both subject matter and syntax, and additional structural exercises to be assigned as homework and designed to develop the student's writing skill."

This general plan is clear enough and does not require any special comment. And here are a few samples of the exercises most typical of the book and directly linked with the transformational approach and transformational concepts.

A transformation exercise on page 112 teaches the student to discriminate between superficially similar verbal and nominal forms ending in *-ing*.

- Example: 1. T (teacher): His business is selling.
S (student): Selling is his business.
2. T: His business is falling off.
S: His business is falling off.
3. T: His job's changing money.
4. S: Changing money is his job.

Another exercise on page 190 practises the derivation of a certain type of adjectives from the underlying structures.

- Example: 1. T: a substance like chalk
S 1: a chalklike substance
S 2: There was a chalklike substance all over the floor.
2. T: innocence like that of a child
S 1: childlike innocence
S 2: His childlike innocence astonished everybody.
3. T: atmosphere like that of home
4. T: a reproduction like life

An exercise on page 200 practises the recovering of the deep structures of certain types of comparative sentences.

- Example: 1. T: Buicks are more comfortable than economical.
S: Buicks are more comfortable than they are economical.
2. T: Buicks are more comfortable than Fords.
S: Buicks are more comfortable than Fords are.
3. T: Mary has more enthusiasm than intelligence.
4. T: Mary has more enthusiasm than Sally.

And, to give one example more, an exercise on page 317 makes the distinction between passive sentences in which a *by*-phrase indicates the agent and those in which it functions as an adverbial of manner.

- Example: 1. T: It was done by telephone.
S: They did it by telephone.

2. T: It was done by me.
S: I did it.
3. T: It was done by radio.
4. T: It was done by a committee.

These examples suffice to show that Rutherford's book is very useful and interesting, although, in the writer's opinion, it would be more valuable if it were not addressed to some general learner of English but were based on contrastive studies. Yet a critical analysis of this particular textbook is not the purpose of the present paper. The purpose of both the writer's ideas presented here and the illustrations provided by Rutherford's textbook is to point out that transformational grammar can be applied to foreign language teaching, and this application, provided it is imaginative and resourceful enough, can be highly satisfactory and profitable to the learner.

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