

TRANSFORMATIONAL THEORY IN TEACHING FRENCH*

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I: Introduction

Insofar as the basic tenet of applied linguistics is that pedagogical grammars should be based on the best available scientific descriptions¹, we may wonder why applied linguists seemed relatively uninterested in transformational grammar until about 1966. Should we simply attribute the dearth of studies exploring its implications to the normal time-lag between theory and application? Or could it be that applications are less obvious (and less specific) than with the first model underlying linguistically-oriented teaching materials? In structural grammar, of course, the principle of substitutability immediately suggested pattern drill, while discovery procedures (now considered beyond the scope of linguistic theory) seemed to furnish a ready-made teaching method.

It was the negative effects of T-Grammar, in questioning these and other linguistic and psychological bases of the audio-lingual approach, which were the first to be felt. However, being by now well known, they are not considered here. Our aim is more positive.

II: Theoretical Considerations

We begin by underlining a point of a very general nature which assuredly does not immediately suggest specific new techniques, but which is obviously rich in implications: it is the enormous impact of Chomsky's succinct dictum: "Language is rule-governed creativity".

Creativity is surely already the ultimate goal of most foreign language teachers, and the others will have to admit that native-like competence is necessary for understanding, but audio-lingualists seem to have lost sight of the end and substituted the means (or rather their means) through an over-zealous application of Nelson Brooks' principle: "Pattern practice, contrary to dialogue, makes no pretence of being communication."² The comparative failure of the "New Key" may lie here, for as John Carroll has pointed out³: "By and large, students learn (if anything) precisely what they are taught." In retrospect, it seems, ironically, that the time spent on pattern drills is the chief barrier to realizing their ultimate aim (free communication).

The formation of novel sentences is accounted for by a model of competence (a grammar). This has led Belasco and Rivers to advocate an approach which concentrates on developing a competence underlying performance: "Acceptable performance is not possible while competence is defective. Practice in performance in the classroom is practice in generating new utterances, not in parroting utterances produced by the teacher."⁴

Of course, it is not just any freely generated sequence which constitutes a sentence - the fact that native speakers have intuitions about grammaticality is sufficient proof of that point. Furthermore, as Chomsky points out⁵: "No one has ever doubted that in some sense, language is learned by generalization, or that novel utterances and situations are in some way similar to familiar ones. The only matter of serious interest is the specific 'similarity':" Behavioral theory, as we all know, places a heavy burden on the largely undefined notion of "analogy" to account for this fundamental characteristic of language.

In characterizing productive processes as being governed by underlying abstract principles (rules) which explicitly relate different sentence-types, T-Grammar is more precise and more powerful than habit-theory. For instance, it will explain the indicative-subjunctive dichotomy in French by taking a limiting case and specifying different appropriate question-forms for each mood. The sentence containing an indicative in the embedded clause:

(1) Je cherche quelqu'un qui sait l'anglais
corresponds to the question:

(2) Qui cherches-tu?

On the other hand:

(3) Je cherche quelqu'un qui sache l'anglais
has as a question:

(4) Que cherches-tu?

III: Foreign-Language Acquisition

For the applied linguist, to say that language is rule-governed behaviour implies that his principal task is to prompt the student to internalize rules, to develop the same underlying competence as a native speaker. The question is: How?

Robin Lakoff⁶ has been able to reduce language teaching to two traditions according to the solution proposed, and the dichotomy is interesting whether we agree with it or not. She justifies grouping traditional grammar-translation methods (the memorising of lists of words and statements of rules), and behaviourist pattern-practice under the one heading by attaching the label "rote-memorization". With this current, she contrasts the "rationalist approach", which she characterizes as following an intuitive-generalizing style, attempting to explain grammatical phenomena. She does admit that this second stream has exerted much less influence until now, but claims that T-Grammar rejoins the method advocated by the Port-Royal Grammarians. And certainly Belasco's insistence on "intellectualisation" of grammar (see below, Section V) and Politzer's feeling⁷ that the written form "Je ne sais pas" may be more revealing of fundamental structure than spoken /ʃepa/, which obliterates the ne of the Neg. constituent, seem to correspond to this view.

Nevertheless, it is quite clear that as yet we have no adequate model of second-language acquisition, and that as Lamendella argues⁸, we are doomed to working more or less in the dark until such time as the quasi-magical "language-acquisition device" (LAD) is developed against which we can compare materials and from which we can infer optimal teaching procedures. However, a few fairly solid propositions can be formulated.

First, the LAD must be able to acquire any natural language, which means that it must draw (in part at least) on universals. Muskat-Tabakowska concludes⁹ on the grounds of this single rather bare observation, that the process must be "comparable" to native-language acquisition. Lenneberg, of course, would not agree, saying that in adolescence the period of "resonance" is already long past in the biologically-determined (and irreversible) progression towards native-language mastery. On the other hand, it seems to me that as a reaction against the wholesale transfer of an (incorrect) behavioral analysis of first-language acquisition to the foreign-language learning situation by early audio-lingualists, we may have lost sight of the many obvious and basic similarities between the two processes. Thus, Lenneberg would concede, I believe, that the process we are interested in may optimally follow the same broad sequencing as in child-language even though the learner may no longer have available the same capacities to allow him to proceed alone.

Now it is becoming fairly clear as a result of work in "developmental psycholinguistics" (associated mainly with the name of McNeill) that the infant has an extraordinary ability to formulate hypotheses and that he implicitly constructs a series of progressively more complex

grammars. Jakobovits¹⁰ has extended this postulate to foreign-language learning by proposing to set up conditions in which the student is led by judicious presentation of materials to construct successively closer approximations to the competence of a native speaker much in the way of Thomas' "developing grammars" for English.

One consequence of this idea will be rather startling for the purists. We would have to admit "errors,"¹¹ for at each intermediate stage, not all sentences would correspond to a definitive adult grammar. But so long as "errors" are rule-governed, this may not be such a bad thing, since there are grounds for believing that this is a necessary condition for first-language acquisition. It may be, in fact, that it is also a crucial factor in optimal second-language learning. The teacher's role here would be to make expansions, that is, fully grammatical sentences related to the student's semi-sentences (by adult grammar standards).

From these and other considerations, there is a clear need at present to redefine the role of pattern drill, firstly in reducing its part in the total teaching situation, in order to leave more time free for creative use of the language right from the first lesson and to give the learner the opportunity to test hypotheses setting the limits on acceptable usage.

IV: Deep Structure in the Language Class

Assuming that the analogy between first- and second-language acquisition can be carried this far, the fundamental pedagogical problem still remains of how to "re-trigger" the LAD in adolescents or adults.

One recurring theme implicit in the recent literature is an appeal to deep structure to furnish a partial solution. It is surmised that an awareness of the fundamental system (not necessarily imparted by rules, generalizations or explanations) might provide an overt learning "crutch" equivalent in effect to what the child accomplishes subconsciously.

The most obvious way in which deep structure might be exploited in materials preparation is simply in providing different analyses to explicitly contrast superficially similar constructions. Consider (5) - (8) :

- (5) Je veux chercher le journal.
- (6) Je fais chercher le journal.
- (7) J'envoie chercher le journal.
- (8) Je vais chercher le journal.

The fundamental point that the learner must grasp in studying infinitive complements is that they are complex constructions, reducible to simpler propositions. The most common process is illustrated by (5), which may be analysed as:

- (5a) Je veux "ceci".
- (5b) Je cherche le journal.

The basic condition which must be met here for two propositions to be combined is identity of subjects. In the breakdown of (6), however, the subjects would be different:

- (6a) Je fais ceci.
- (6b) "On" cherche le journal.

The analysis of (7) is quite different again:

- (7a) J'envoie "quelqu'un".
- (7b) Quelqu'un cherche le journal.

Sentence (8) is ambiguous. One interpretation corresponds to the general analysis we have given for (5), viz:

- (8a) Je vais "quelque part".
- (8b) Je cherche le journal.

It conveys a sense of intention, and could be paraphrased as "Je vais quelque part pour chercher le journal." On the other hand, the second reading contains no embedded sentence at all - vais here is simply a modal like peux or dois and one should not talk of infinitive complements in this instance.

The student must have a command of these distinctions if he is to produce, by extrapolation

- (9) J'envoie ma femme chercher le journal
but not, for instance:
- * (10) Je veux ma femme chercher le journal.
(a common error usually attributed to interference from English).

If analyses of this kind can indeed contribute to setting the mechanism for "natural" language acquisition in motion again, then we should give much greater weight to exercises which underline creative processes and illustrate deep structure relationships,¹² by providing, as it were, surface realisations of simple base sentences to be combined into more complex structures, as in examples (11) and (12), where the relative pronoun is underlined in the resultant construction :

- | | | | |
|-------|---|-----|--|
| (11a) | Ma femme a beaucoup apprecie <u>le cadeau</u> | } → | Ma femme a beaucoup apprecie le cadeau <u>que</u> tu nous as offert. |
| (11b) | Tu nous as offert <u>le cadeau</u> . | | |
| (12a) | J'avais <u>un ami</u> . | } → | J'avais un ami <u>qui</u> allait a l'université. |
| (12b) | <u>Cet ami</u> allait a l'université. | | |

The "analytical" exercises focus attention on why que is chosen in (11) (le cadeau is in object position in (11b)), whereas qui appears in (12) (cet ami is in subject position in (12b)), as well as demonstrating the necessary condition for relativization - identity of nouns in the underlying sentences.

The objection will be made by some readers that this "integration" drill, as Rutherford¹³ would call it, is not at all new, and more generally that pedagogues did not wait for Chomsky to develop the notion of transformation before employing, for instance, the question-answer relationship. But this is not the point; it is rather that T-Grammar provides a theoretical justification for wide use of this technique, that in contributing to the development of a theory of foreign-language acquisition, T-Grammar can indicate how much importance to give to such a technique.

Rutherford reserves the label "transformation" for exercises where only singular transformations are exploited (or, in more modern terms, where operations are performed only on simple matrix structures containing no embedding). The following examples involve pronominalisation :

- (13a) As-tu répondu à sa lettre? (Non)
 → (13b) Non, je n'y ai pas répondu.
- (14a) A-t-elle répondu à son correspondant? (Oui)
 → (14b) Oui, elle lui a répondu.

It might be argued that these examples do not really illustrate the application of transformational rules. As a general principle, we should not expect meaningful, interesting exercises to resemble very closely even surface variants, much less derivations of formalized deep structures, since too many purely pedagogical considerations militate against their being successful. For one thing, it could lead again to replacing meaningful communication by mechanical manipulation (in the worst case, without understanding). However, this does not imply that a pronominalization transformation, as above, could not be exploited - this is the operative word - by having students apply the rule which switches the [-pro] specification of a N to [+pro], and realise this as y where the preposition a and the feature [-ani] are also present, or as lui where a and [+ani] occur.¹⁴ The fact that students are at the same time also answering questions (which may be transformationally unrelated, as in (13)) only adds to the naturalness of the exercise, and this seems sound practice.

There is another way in which deep structure considerations might be integrated into FL methodology. Rather than explicitly contrasting superficially similar sentences which are derived from different underlying forms, one might wish in the first instance to keep them well separated for purposes of presentation. For example, it would seem advantageous to avoid having (15) appear in the same paradigm as (16):¹⁵

(15) J'ai trouvé cette voiture indispensable.

(16) J'ai trouvé cette voiture rouge.

By tracing their transformational histories, we would find that (15) derives from the same source as (17):

(17) J'ai trouvé que cette voiture était indispensable.

whereas the underlying structure of (16) would also generate (18):

(18) J'ai trouvé cette voiture qui est rouge.

Further, we observe that (15) is related to (19):

(19) Je l'ai trouvé indispensable.

while (16) corresponds to (20):

(20) Je l'ai trouvée.

Incidentally, these remarks provide a formal reason (if there were not sufficient practical ones) for ensuring that ambiguous sentences do not appear in the first presentation - for instance, (21):

(21) J'ai trouvé cette voiture formidable.

which is open to both the analyses above (as the reader may easily verify for himself).

In this system, there is no contradiction between the explicit contrasting of (5) - (8), and the deliberate separation of (15) - (16). Rather, we are suggesting that, in the first instance, (5) - (8) - or (15) - (16) - be treated in different lessons, and that they then be brought into contrast at a later time (probably in a testing period, as we shall discuss below in Section V).

To my knowledge, only one text has ever been written which overtly exploits a generative grammar as its theoretical underpinning: Rutherford's Modern English.¹⁶ Even a cursory glance at its exercises demonstrates how the preceding considerations could be implemented in a modified approach to language-teaching. Quite clearly, within each chapter there is a "micro-progression" from controlled to free responses. Various sorts of replacement drills (inspired, of course, by structural grammar) - simple, structural, progressive, expanding - have a presentative value. Next, both singular and generalized transformations are operated on what might be called "overt base forms" (as in examples 11 - 14). Finally, the student is given the opportunity to test hypotheses inferred from the earlier structural examples in more natural communication situations through progressively less rigid question and reply drills, amounting essentially to a continuum from fixed through guided to free utterances.

Such exercises obviously indicate a much-modified role for the language-laboratory, but we reserve detailed consideration of this point for a future occasion.

V: The "Plateau"

The motivation of Modern English was that "the most difficult transition in learning a language is going from mechanical skill in reproducing patterns acquired by repetition to the construction of novel but appropriate sentences in natural social contexts." (Foreword).

This is the problem that has occupied Belasco for several years.¹⁷ He argues that by the nature of their simplistic psychological and linguistic foundations, all current theories of FL teaching (although he concentrates on specific criticism of audio-lingual habit theory) are intrinsically incapable of doing more than putting the student on a "plateau," because they

insist on performance, forgetting creativity. The term is, I think, evocative and can be given operational reality by plotting a student's learning on a graph. At the university level, he seems to expend a considerable amount of energy for very little result on his way to "communicative competence," so that the plateau is a problem more especially for university teachers - indeed, we would say the fundamental problem today.

Now, generative grammar is the only theory currently available which is sufficiently powerful to ever account for competence.¹⁸ It is predicted that a major function of T-Grammar is potentially in solving problems at this advanced level. The first tentative proposals for eliminating the plateau involve three sorts of training in comprehension.¹⁹

- listening
- reading
- "intellectualisation" of grammatical principles.

Since it seems that complex sentences are perceived as combinations of base-sentences and reduced to their deep-structure form for storage, Rivers²⁰ suggests exercises in reduction of highly-transformed sentences for the first two skills.

Belasco would illustrate the third activity with a test such as the following, where students would be asked to specify the transformational potential of descriptive adjectives and epithets (the possible responses are given in parentheses):

Problem: Transform (22) - (27) into:

- a) sentences containing a relative clause introduced by qui.
- b) sentences with a subordinate clause preceded by the conjunction que.

(22) Le magistrat juge les voleurs coupables.

(22a Le magistrat juge les voleurs qui sont coupables).

(22b Le magistrat juge que les voleurs sont coupables).

(23) Ils estiment ton projet intéressant.

(23a Ils estiment ton projet qui est intéressant).

(23b Ils estiment que ton projet est intéressant).

(24) Pierre a trouvé cette caveme souterraine.

(24a Pierre a trouvé cette caveme qui est souterraine).

(25) Il deteste ce tapis vert.

(25a Il déteste ce tapis qui est vert).

- (26) Je trouve sa conduite insupportable.
 (26b Je trouve que sa conduite est insupportable).
 (27) On croit ce vin honnête.
 (27b On croit que ce vin est honnête).

The purpose of this exercise would be to assess whether the student has grasped the ambiguity of (22) and (23), which necessitates a dual analysis, viz:

Le magistrat juge les voleurs. Les voleurs sont coupables.

Cf. Le magistrat juge ceci. Les voleurs sont coupables.

whereas only one of these analyses is justified for each of (24) - (27), which are un-ambiguous.

Now, strictly speaking, all of this constitutes an abuse of the term "transformation," because in a scientific grammar the (a) and (b) examples would be derived before (22) - (27), that is QU- + être deletion can occur only after the embedding which eventually gives the (a) and (b) strings. However, this procedure seems pedagogically admissible in that it highlights relations between surface forms, which appears to be a crucial factor if the student is to use language productively. Moreover, it corresponds to common linguistic practice where surface variants (often expansions) are frequently adduced in support of different analyses of apparently similar forms. And for the learner, the essential point is to see that all of these complex structures, whether they are realised with qui, que or directly dependent on the noun, can be traced to similar elementary base sentences. In any case, for purposes of presentation, the correct ordering of derivations could be observed - in fact, it seems to me illuminating to present adjectives as derived from embedded sentences.

Belasco proposes means for "getting the student off the plateau." He argues that the problem must arise in every case where teaching is based on currently available materials, particularly those drawing their inspiration from audio-lingual habit theory, which he nevertheless proposes to supplement rather than replace. Note, however, that the implementation of an approach emphasizing liberated expression right from the first lesson might succeed in avoiding the problem to begin with. This is not to say that habit-formation is completely rejected. Our difference from Belasco is one of emphasis. It would be interesting to see what would happen if, after a series of drills in an elementary lesson, pupils were given more opportunities to extrapolate from the elements they have just learned

to manipulate. Such a procedure seems always at least tacitly assumed, but in my experience is rarely carried through to the full limits of its potentiality.

VI: Conclusion

I would emphasize, in summing up, that most of the foregoing represents little more than hypotheses; but if my reasoning is sound, then they constitute interesting hypotheses. At this stage, the impact of T-Grammar on FL teaching is largely confined to theorizing in the professional journals; it has not yet filtered down into the classroom (witness the dearth of texts drawing on transformational insights). This state of affairs should not be too surprising, since it is difficult to talk of "applications"; we must be content with implications. Nor should we expect T-Grammar (or any other linguistic theory) alone to provide all of the answers to the questions facing the FL teacher (and learner).²¹ Nevertheless, in giving insights into the nature of what must be acquired, in providing original analyses, in suggesting new techniques or providing theoretical justifications for existing practices, T-Grammar could contribute substantially to solving what appears to be the most pressing problem for the profession today - getting Johnny through the pack for a touchdown.

NOTES

* Some of the points made in this paper are developed in considerably greater detail in my unpublished *Mémoire de Maîtrise*, "Grammaire générative et pédagogie du français" (Besançon, 1969), where an attempt is made to provide a full theoretical framework for a discussion of methodology.

It would be remiss of me not to register here my debt to Professor Robert L. Politzer for prompting me to write this review, and to Professor Wilga M. Rivers for her constant encouragement.

1. Cf. M.A.K. Halliday, A. McIntosh and P. Strevens, The Linguistic Sciences and Language Teaching (London, 1964).
 - O. Thomas, Transformational Grammar and the Teacher of English, (New York, 1965).
 - S. Saporta, "Applied linguistics and generative grammar" in A. Valdman (ed.), Trends in Language Teaching (New York, 1966), pp. 81-92.

- A. Valdman, "La progression pédagogique dans les exercices structuraux" in Le Français dans le Monde, No. 41 (June, 1966).
- 2. N. Brooks, Language and Language Learning, Theory and Practice: Rev. ed. (New York, 1965), p. 146.
- 3. J.B. Carroll, "Research on teaching foreign languages" in N.L. Gage (ed.), Handbook of Research on Teaching (Chicago, 1963), p. 1069.
- 4. W.M. Rivers, Teaching Foreign Language Skills (Chicago, 1968), p. 67. cf. also S. Belasco, "Developing linguistic competence" in Modern Language Journal, Vol. LII, No. 4 (April, 1968), pp. 213-215.
- 5. N.A. Chomsky, Review of B.F. Skinner, Verbal Behaviour, in J.A. Fodor and J.J. Katz (eds.), The Structure of Language: Readings in the Philosophy of Language (Englewood Cliffs: New Jersey, 1964), p. 575. Originally published in Language XXXV (January, 1959).
- 6. R. Lakoff, "Transformational grammar and language teaching", Language Learning XIX, 1-2 (June, 1969), pp. 117-140.
- 7. R.L. Politzer, "Two schools of linguistics and foreign language teaching": Mod. Lang. Jour., Vol. LII, No. 4 (April 1968), p. 212.
- 8. J.T. Lamendella, "On the irrelevance of transformational grammar to second language pedagogy": Lang. Learning XIX, 3-4 (Dec., 1969), p. 255.
- 9. E. Muskat-Tabakowska, "The notions of competence and performance in language teaching": Lang. Learning XIX, 1-2 (June, 1969), p. 46.
- 10. L.A. Jakobovits, Foreign Language Learning: A Psycholinguistic Analysis of the Issues (Rowley: Mass., 1970), Chap. 1.
- 11. Cf. Jakobovits, *ibid.*, p. 25.
 - S. Pit Corder, "The Significance of learners' errors": IRAL V/4 (Nov. 1967), pp. 161-170.

12. In this schema, the repetition drill's role of presentation could be assumed by limited use of dialogues and simple substitution exercises. Note here that studies in the Aspects framework and other recent research on selectional restrictions should contribute to avoiding anomalies such as:

Je vois le garçon traverser la rue
regards

J'entends

but* Je sens le garçon traverser la rue.

13. W. Rutherford, Modern English - A Textbook for Foreign Students (New York, 1968).
14. Whether the students can verbalize the operations in these terms would not seem to matter much.
15. This is more particularly so for a written exercise, since in the oral form, students could perhaps perceive (or be trained to perceive) the slight pause after the noun when the adjective is an epithet.
16. T.H. Mueller, E.N. Mayer and H. Niedzielski claim that their Handbook of French Structure - a systematic review (New York, 1968), is also based on cognitive psychology and T-Grammar, but the application is rather naïve, so that one cannot really imagine the book providing an antidote to audio-lingual habit formation.

One has a suspicion that authors of other recent texts had more than a passing acquaintance with generative linguistics, although they do not specifically mention their bases. The most interesting among these is John Barson's La Grammaire à l'Oeuvre (New York, 1970).

17. But see particularly 'The Plateau; or the case for comprehension: the "concept" approach': MLJ, LI, 2 (Feb., 1967), pp. 82-88.
18. I include under the generic term "generative grammar" such recent developments as case theory and generative semantics, for although they reject Chomsky's model, they take as axiomatic his fundamental principles on the bases of linguistic theory.

It seems to me that case grammar, in particular, might be exploited in interesting ways, but it would require another paper to explore its implications at all adequately.

19. Cf. "The Plateau...", op. cit., p.87.
20. W.M. Rivers, "Linguistic and psychological factors in speech perception and their implications for teaching materials": Paper submitted for publication in Proceedings of the 2nd Congress of the Association Internationale de Linguistique Appliquée (Cambridge: Eng., Sept., 1969).
21. Cf. Lamendella, op. cit.