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ABSTRACT

This is the first volume in a continuing series of working papers on English as a second language. The selections in this volume are divided into two groups. The first is a series of three papers given at the annual meeting of the National Association of Foreign Student Affairs held in Chicago in April 1966. These papers, by P. Schnachter, R. Wilson, and L. McIntosh illustrate how to move from the theories of transformational grammar and contrastive analysis to practical application when teaching English to Tagalog speakers. The first paper in part 2 is by C. H. Prator and develops guidelines for planning lessons so that students progress steadily toward more natural uses of language. In the second paper, J. Donald Bowen makes observations about the National Defense Education Act summer TESL institutes and suggestions for their improvement. In his paper, R. N. Campbell favors the inclusion of a "taped achievement test" as the culminating activity in a language laboratory pronunciation exercise. E. Rand describes a sequence of exercises to increase writing fluency in the final paper. For the remaining three papers in the volume, by McIntosh, Povey and Briere et al., see ED 012 438, ED 012 439, and ED 091 776, respectively. (PMP)

WORKPAPERS

in

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# WORKPAPERS IN ENGLISH AS A SECOND LANGUAGE

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## INTRODUCTION

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## INTRODUCTION

No attempt will be made here to claim for this set of workpapers a unity that they do not possess. The reason for gathering them into a book is simply that it makes them more accessible and more permanent. The best case that can be made for the unity of any such collection is an informal one, and perhaps for that reason is rarely resorted to: it is that the several parts, as the product of a single department, have a certain stamp on them. They all attempt to broaden and, above all, introduce more flexibility, into the basic audio-lingual approach.

The selections in this collection were written, with the exception of one, during the last year. They fall into two groups. The first is a series of three papers, forming a trilogy, given at the annual meeting of the National Association of Foreign Student Affairs held in Chicago in April 1966. These papers, by Paul Schachter, Robert D. Wilson, and Lois McIntosh, illustrate in three steps, moving from theory to practical application, the value of a rigorous contrastive analysis in the preparation of pedagogical materials, in this case for the teaching of English relative clauses to speakers of Tagalog.

The second group of papers shows, we think, the breadth of interest of our ESL section. The first paper, by Clifford H. Prator, develops guidelines for planning the activities which make up a class hour in such a way that the students progress steadily toward more natural uses of language. The author examines several different concepts of moving from manipulation to communication by gradually shifting responsibility for correctness from the teacher to the student. The second paper, by J. Donald Bowen, is actually excerpts from a letter which he wrote to Dr. Eugene E. Slaughter, Director of the Modern Language Institutes Branch of the U.S. Office of Education, and which he sent to persons involved in the National Defense Education Act summer TESL institutes, such as William Slager, Archibald A. Hill, and Albert Marckwardt. He makes observations on the current success of these institutes, especially the ones held at UCLA, and suggestions for their improvement.

The third paper is by Lois McIntosh. Though she wrote it some years ago, we still find it useful reading for our students in the basic methods course. In this paper, she reiterates many of the basic tenets of our English as a second language program here at UCLA. The next paper is one in which John D. Povey argues that although 'language' is always of prime importance in ESL studies, it cannot be the only concern. The program must also teach 'culture', and literature is not only "an essential aspect of language learning" but that it is also the key to teaching culture.

Russell N. Campbell, in the fifth paper, puts forward a strong case for the inclusion of a "taped achievement test" as the culminating activity in a language laboratory pronunciation exercise. The results will not only provide the teacher with feed-back on the effectiveness of his presentation but more importantly will also gain the student's "aggressive participation in the exercise." Eugène J. Brière, Russell N. Campbell, and Soemarmo report in the sixth paper that phonological contrastive analysis requires the use of the syllable as well as the phoneme and word as a prime. Otherwise, important generalizations would be impossible to make. For example, though neither /ʒ/ nor /ŋ/ occur initially in English, English speakers only have difficulty learning /ŋ/ in a foreign language. In the final paper, by Earl Rand, a relatively simple sequence of exercise is described which will promote writing fluency.

We would like to acknowledge the assistance of Earl Rand of our ESL group in seeing these papers through publication in this current format. Joanne March typed the final copy from which this is photo offset. The cover was designed by Seija Anttila.

The Staff

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# TRANSFORMATIONAL GRAMMAR AND CONTRASTIVE ANALYSIS

Paul Schachter

## Introduction

The purpose of this paper is to examine briefly the implications of some recent developments in the theory of transformational generative grammar for the contrastive analysis of languages. By contrastive analysis is meant the analysis of the similarities and differences between two or more languages. The value of such analysis to the foreign-language teacher, including the teacher of English as a second language, has long been recognized. This value stems from the fact that students tend to transfer the features of their native language to the language they are learning. From this it follows that features of the foreign language that are similar to features of the native language will present little difficulty, while features of the foreign language that are different from those of the native language will require some amount of attention on the teacher's part. A contrastive analysis, by specifying just which features the two languages have in common and which they do not, can thus alert the teacher to what in the foreign language really needs to be taught.

Until fairly recently, structural linguists have tended to emphasize the respects in which languages differ from one another. This emphasis upon the idiosyncratic characteristics of languages originated in an essentially healthy rejection of an earlier grammatical tradition in which it had been assumed that all languages were more or less reasonable facsimiles of Latin, and could be analyzed in terms of Latin-like case systems, Latin-like verbal conjugations, etc. Reacting to this obviously incorrect assumption, twentieth-century linguists proposed--to quote one of them--"that languages could differ from each other without limit and in unpredictable ways." (Martin Joos, Readings in Linguistics, p. 96)

But it has recently been suggested that this reaction was something of an over-reaction, in which one incorrect assumption was replaced by another. And the experience of those who have successfully taught English to students with a wide variety of language backgrounds would seem to confirm that this is the case. For if it were true that the native languages of some of these students were limitlessly different from English, how could we explain the fact that the students do after all learn English when they have really been taught rather little? That is, when we consider the enormous complexity of English, and, indeed, of languages in general, and the relatively short time that it takes to learn such a complex system, mustn't we conclude that much of what the student knows when he has learned a new language he has not been taught at all? Must it not, rather, be the case that, for example, the Japanese student of

English already knows, in a sense, a good deal of the structure of English before he has heard or uttered his first English word, that the mastery one has of the structure of one's native language automatically involves mastery of a substantial part of the structure of any other language?

Now I have perhaps been a little unfair to those linguists who have claimed that languages could differ from one another without limit; for these linguists would probably not claim that there are any two languages whose grammatical systems have absolutely nothing in common. They would, however, certainly claim that there is no reason to expect that two unrelated languages should share any particular set of grammatical or other features, so that they would not, for example, expect to find any substantial overlap between the grammatical features shared by Japanese and English, on the one hand, and those shared by, say, Chinese and English on the other. And it is just this claim that has lately been challenged by Noam Chomsky and others concerned with developing the theory of transformational generative grammar.

### "Deep" and "Surface" Structure

In his Aspects of the Theory of Syntax, Chomsky proposes certain major revisions in the theory of transformational grammar. Of particular interest here is the distinction Chomsky now makes between "deep structure" and "surface structure." According to Chomsky, all sentences have both a deep structure and a surface structure. The deep structure is specified by a set of "base rules." It includes all of the syntactic features --constituency relations and so forth--that are relevant to the meaning of sentences. The surface structure of sentences results from the operation of another set of rules, the "transformational rules," upon deep structures, and includes all of the syntactic features--order relations, and so forth--that are relevant to the way sentences are pronounced.

Now Chomsky has suggested that a substantial part of the base rules of the grammar of any language may not be specific to that language, but may, instead, be rules of human language in general. This is not at all to deny the obviously considerable differences between languages that may be found in even the simplest types of sentences, but it is, rather, to account for these differences on the basis of the effect of diverse sets of transformational rules operating upon essentially similar deep structures. To quote Chomsky on this subject:

It is commonly held that modern linguistic and anthropological investigations have conclusively refuted the doctrines of classical universal grammar, but this claim seems to me very much exaggerated. Modern work has, indeed, shown a great diversity in the surface structures of languages. However, since the study of deep structures has not been its concern, it has not attempted to show a corresponding diversity of underlying structures, and, in fact, the evidence that has been accumulated in modern study of language does not appear to suggest anything of this sort. (Aspects, p. 118)

Obviously the claim that languages are highly similar in their deep structures, if true, has important implications for the contrastive analysis of grammatical systems. For it means, in effect, that the contrastive analyst can concentrate most of his attention upon the transformational rules of the languages he is comparing, investigating the ways in which these rules operate to change similar deep structures into possibly very different surface structures.

But Chomsky's current model of transformational grammar goes beyond this in its potential for simplifying the task of the contrastive analyst. For not only does the model direct the analyst's attention primarily to the comparison of transformational rules. It even tells him, in many cases, just what transformational rules to compare. In this connection, it is important to note that, in the new model of transformational grammar (as opposed to earlier models), transformational rules are, in general, obligatory. That is, the deep structures specified by the base rules, in general, must undergo transformation. Now from the hypothesis of the non-language-specificity or universality of base rules it follows that if, in any one language, there is a certain deep structure that must undergo transformation, there will be corresponding deep structures in other languages that must also undergo transformation. In such cases, then, the contrastive analyst knows precisely which transformational rules to compare: namely, those rules that apply to the corresponding deep structures in the several languages.

#### Relative Clauses

I would like to turn now to a case in point: a programatic contrastive analysis of relative clauses in English and some languages unrelated to it and to one another. In the sketch of the grammar of English that he provides in Aspects, Chomsky proposes that all English relative clauses represent transformations of deep-structure sentences that are embedded in noun phrases. That is, the base rules of English include a rule to the effect that a noun phrase may consist (among other things) of a noun plus a sentence, and the transformational rules of English include rules that, under specified circumstances, transform a sentence that is part of a noun phrase into a relative clause. Thus the base rules might specify a noun phrase that includes the noun people and the sentence I saw people, and the transformational rules might operate to transform this into the noun-plus-relative-clause structure, people whom I saw.

Let us assume--as, I think, we have some reason to--that relative clauses in all languages represent transformations of deep structure sentences that are embedded in noun phrases. Let us assume, in other words, that the English base rule that specifies that a noun phrase may include a noun plus a sentence is, in fact, not a rule specific to English, but, instead, a rule of human language in general. Our task as contrastive analysts then becomes that of comparing the transformational rules that operate, in the languages in which we are

interested, to convert deep structures that include a noun plus a sentence (as parts of a noun phrase) into surface structures that include a noun plus a relative clause.

Transformational rules have two parts: a structural description and a structural change. The structural description specifies the domain or scope of the transformation: that is, the structures to which it applies. The structural change specifies the form of the transformation: that is, the ways in which the transformed structures differ from the structures specified in the structural description. In comparing the relative-clause transformations of two or more languages, then, differences in the structural descriptions will correspond to differences in the scope of relativization in the languages--that is, differences in the types of deep structures that can be relativized. Differences in the structural changes, on the other hand, will correspond to differences in the surface structures of the relative-clause constructions themselves.

### Scope of Relativization

If we compare the structural descriptions of the transformational rules of relativization in English and Tagalog (a Malayo-Polynesian language of the Philippines), we find that they have both striking similarities and striking differences. In both languages, of course, we find that the structural description specifies certain noun-phrase structures that include a noun (which we shall hereafter call the head noun) and a sentence (which we shall hereafter call the embedded sentence). In both, furthermore, we find that the structural description specifies that the embedded sentence must include a noun that is identical with the head noun (we shall call this noun the identical noun). To take an English example, a deep-structure noun phrase with the head noun people and the embedded sentence I saw people is relativizable. But if the base rules should produce a deep-structure noun phrase with the head noun people and the embedded sentence I saw animals or John loves Mary, relativization transformations fail to operate, and no surface structure, and hence no pronounceable utterance, results. Tagalog relativization transformations--and, presumably, those of all other languages--include a similar restriction. There are, in addition, certain other shared restrictions on the structure of the embedded sentence. For example, it may not be a question; nor may it be an imperative.

The most important difference between the structural descriptions of English and Tagalog relativization rules has to do with restrictions upon the syntactic role of the identical noun within the embedded sentence. English, in general, does not impose restrictions. The identical noun may be the object, as in the deep structure underlying people whom I saw, the subject, as in the flowers which are on the table, a prepositional object, as in the table which the flowers are on, etc. In Tagalog, on the other hand, the identical noun--with a few minor exceptions--always has the same syntactic role within the embedded sentence, that of topic. The Tagalog topic

has no precise counterpart in English. It will be sufficient for present purposes to say that in simple sentences of Tagalog there is in general only one topic, that this topic has certain distinguishing formal characteristics in the surface structure (e.g., if it is a common noun, it is preceded by the function word ang), and that in some cases (but by no means always, or even generally) it corresponds to the subject in English.

The most important point to be noted, with respect to relativization transformations, is that Tagalog simple sentences generally include only one noun functioning as topic and that only this noun may serve as the identical noun specified in the structural description of the relativization transformation. Thus in the Tagalog equivalent of the embedded sentence The flowers are on the table (Nasa mesa ang bulaklak), the noun bulaklak 'flowers' is the topic and so may serve as the identical noun for purposes of relativization, but the noun mesa 'table' is not the topic, and may not serve as the identical noun. That is, if there is a deep-structure noun phrase consisting of the noun bulaklak 'flowers' and the embedded sentence Nasa mesa ang bulaklak 'The flowers are on the table,' the relativization transformation operates to produce the noun-plus-relative-clause construction bulaklak na nasa mesa '(the) flowers which are on the table.' But if there is a deep-structure noun phrase consisting of the noun mesa 'table' and this same embedded sentence, the conditions imposed in the structural description of the relative-clause transformation are not met, and no noun-plus-relative-clause transformation can result. This is to say that Tagalog has no structure precisely paralleling the structure of English the table which the flowers are on or the table on which the flowers are. Tagalog can, of course, express the approximate semantic equivalent of these English structures. This it does with the structure mesang may bulaklak, literally, 'table having flowers.' This structure results from the application of the relativization transformation to a deep-structure noun phrase consisting of the noun mesa and the embedded sentence May bulaklak any mesa 'The table has flowers.' Note that in this embedded sentence mesa is the topic, so that both the universal conditions and the specific Tagalog conditions for relativization are met. This, then, is one example of differences in the scope of relativization in different languages that would, in a transformational generative grammar of these languages, be expressed by differences in the structural descriptions of transformational rules.

#### Form of Relativization

Let us turn now to differences in the form of relativization in different languages. In generative grammars such differences would be expressed by differences in the structural-change portion of those transformational rules that convert deep structures in which there is a noun phrase that includes a head noun and an embedded sentence into surface structures that include a head noun and a relative clause.

Since relativization transformations serve in all cases to transform sentences into relative clauses, there are certain types of structural changes that one can reasonably expect to find present in the relativization transformations of all languages. In the first place one can expect some kind of linking, that is, some kind of explicit marking of the fact that the clause is syntactically connected to the head noun. Secondly, one can expect some kind of alteration of the identical noun, that is, alteration of the noun within the embedded sentence that is identical with the head noun. This alteration is to be expected because languages tend to be economical, and it would be obviously uneconomical simply to repeat the head noun within the relative clause. Finally, one may encounter various other changes that can be grouped together under the rubric: other subordinating devices.

Comparing the structural changes involved in the relative clause transformations of English, Tagalog, and two African languages unrelated to one another, Twi (a Niger-Congo language of Ghana) and Hausa (an Afro-Asiatic language of Nigeria), we find that all do, in fact, involve linking and alteration of the identical noun. In the case of all four languages, linking is accomplished by the insertion of a linking element at or near the beginning of the relative clause. In English this element is the wh- of who, whom, or which; in Tagalog it has the form -ng or na; in Twi it is a and in Hausa da. Except for the fact that the linking element is in some cases just part of a word (English wh- or Tagalog -ng) while in others it is a more-or-less independent word (as in Twi and Hausa), all four languages are substantially similar with respect to the way in which they achieve linking.

Alteration of the identical noun shows more diversity. In Twi the identical noun is replaced by its personal-pronoun counterpart. Thus the Twi equivalent of people whom I saw may be literally glossed 'people-linker-I saw them.' In Tagalog, on the other hand, the identical noun is deleted, so that the equivalent of people whom I saw may be glossed 'people-linker-I saw.' Hausa shows pronominalization of the identical noun in most cases, but in some cases allows either deletion or pronominalization. Thus Hausa has two freely alternating equivalents of people whom I saw, which may be glossed, respectively, as 'people-linker-I saw them' and 'people-linker-I saw.' English is like Twi in using pronominalization consistently, but whereas Twi replaces the identical noun with an appropriate personal pronoun, English uses a special set of forms, the relative pronouns, in which the pronominal replacement of the identical noun is combined with the linking element wh-.

It is with respect to the use of other subordinating devices that the four languages being examined show the most idiosyncratic characteristics. In English we have the front-shifting of the pronominal replacement of the identical noun: i.e., the occurrence of the relative pronoun at or near the beginning of the relative clause, regardless of its syntactic role within this clause. There is nothing at all like this in any of the other languages. Twi and Hausa also

have subordinating devices without counterparts in the other languages: in Twi, the use of a special set of tone patterns that occur only in subordinate structures; in Hausa, the use of a special set of verb tense markers that occur only in subordinate structures. Tagalog differs from all of the others in that, apart from linking and deletion of the identical noun, no other subordinating devices are used at all.

The above, then, are some examples of similarities and differences involved in the forms of relative-clause structures in different languages, similarities and differences of the kind that, in generative grammars of these languages, would be reflected in the structural-change portion of pertinent transformational rules.

### Conclusions

I believe that, were the structural-change portion of the relativization transformations of English, Twi, Hausa and Tagalog compared in a more systematic way than I have attempted to do, the comparison would provide a very clear statement of the major formal differences among the relative-clause structures of these languages. Similarly, I think that a very clear statement of differences in the scope of relativization would emerge from a systematic comparison of the structural-description portion of the pertinent transformations. I hope, at any rate, that I have demonstrated that such statements may be of considerable interest and value to language teachers.

A CONTRASTIVE ANALYSIS OF SEGMENTS OF TRANSFORMATIONAL GRAMMARS  
OF ENGLISH AND TAGALOG

Robert D. Wilson

The particular area of syntax which I shall cover is that of relative clauses.

Traditional grammars of English name two types of relative clauses, the restrictive and the non-restrictive. Two examples are:

1. My wife who works in Los Angeles is arriving tomorrow.  
(restrictive)
2. My wife, who works in Los Angeles, is arriving tomorrow.  
(non-restrictive)

The surface structure of a sentence with a restrictive relative clause places the relative clause and its head under the roof of a single intonation phrase. On the other hand, the surface structure of a sentence with a non-restrictive relative clause places the relative clause under the roof of an intonation phrase separate from that of its head, the separation being effected by a pause between the head and the clause.

The deep structure of a sentence with a restrictive relative clause includes in its representation an embedded #S# which is part of a noun phrase. Thus, in example 1, My wife who works in Los Angeles is a segment classified as a noun phrase and, in this example, a noun phrase which is the subject of the sentence. On the other hand, the deep structure of a sentence with a non-restrictive relative clause includes in its representation a coordinate #S# generated by the first rule of the phrase-structure subcomponent. Thus, example 2 is derived from the following:

3. My wife works in Los Angeles and my wife is arriving tomorrow.

Tagalog, on the other hand, does not formally distinguish between restrictive and non-restrictive relative clauses in the surface structure in any general way. Both examples 1 and 2 may be translated into the following:

4. Ang asawa kong nagtratabaho sa Los Angeles...  
Ang asawa/ko/-ng/nagtratabaho/sa Los Angeles...  
wife/my/who/works/in Los Angeles

The first and immediate interpretation of some of my Tagalog informants was to interpret the relative clause of example 4 as restrictive. Then it would quickly occur to them that the intention of the speaker of example 4 was not to convey that he had more than one wife, but rather

that he had only one wife and that he was saying something about her parenthetically--which, of course, makes the interpretation non-restrictive. Some of my informants also explained that if they knew that the speaker had only one wife, their first interpretation would be non-restrictive. Other informants claimed complete ambivalence about the ambiguity.

The ambiguity, however, is not there when the head noun is a proper name. In Tagalog, proper names are introduced by si when they occur as subjects of the sentence. Other nouns are introduced by ang. For example, si Oscar for 'Oscar,' but ang bata for 'the child.' Compare examples 4 and 5:

5. Si Oscar na nagtratabaho sa Los Angeles...  
 Si Oscar/na/nagtratabaho/sa Los Angeles...  
 Oscar/who/works/in Los Angeles

This is interpreted only as non-restrictive. English, too, requires that the relative clause following a proper noun be non-restrictive as in 6:

6. Oscar, who works in Los Angeles...

However, if the English proper noun is converted into a common noun by introducing it with the determiner the, its relative clause must be restrictive as in 7:

7. The Oscar who works in Los Angeles...

Similarly, in Tagalog, if the proper name is converted into a common noun by marking it with ang instead of with si, its relative clause is interpreted as restrictive as in 8:

8. Ang Oscar na nagtratabaho sa Los Angeles...  
 Ang Oscar/na/nagtratabaho/sa Los Angeles...  
 the Oscar/who/works/in Los Angeles...

Compare example 8 with example 4. In example 4 the relative clause was interpreted as non-restrictive when it was assumed that the speaker had only one wife. Observe that such an assumption of one wife makes the common noun wife semantically parallel to a proper name. It is not surprising then that the relative clause following a common noun considered like a proper name be a non-restrictive relative clause--that is, just as a proper name followed by a relative clause is interpreted as non-restrictive.

The surface structure of a Tagalog sentence with a relative clause does not formally distinguish between the two types of clauses when the head noun is a common noun. But it does make a distinction when the head noun is a proper noun. It does this with si or any of its alternants for non-restrictive, with ang or any of its alternants for restrictive.

The deep structure, if current requirements of transformational theory are met, must provide unambiguous representations in both cases:

(1) where the heads are common nouns, two different deep representations must account for the resulting ambiguity, and, (2) where the heads are proper nouns, two different surface representations must account for the resulting lack of ambiguity. Such an accounting might take the following forms. In (1), the restrictive relative clause has as its source an embedded #S# which is part of the common noun phrase, and the non-restrictive relative clause has as its source a coordinate #S#. Thus, the sources of the restrictive and non-restrictive relative clauses for Tagalog parallel those of English. In (2), the resulting unambiguous interpretations depend on noun markers: the head noun is introduced either by ang (whether it is a subject or not) or by si. A noun in the environment between ang and #S# may pick up either a common noun or a proper name from the lexicon. A noun in the environment between si and #S# may pick up either a proper name or a human common noun. Sentence 5 is an example of a proper noun between si and #S#. Sentence 8 is an example of a proper noun between ang and #S#. Sentence 5 contains a non-restrictive relative clause, and sentence 8 a restrictive one. But what about a human common noun as head? Such a noun, when introduced by si, is a metaphor where a characteristic stands for a particular person. For example:

9. Dadating bukas si abogado.  
Dadating/bukas/si abogado.  
will arrive/tomorrow/lawyer(='Oscar')  
(i.e., 'Mr. lawyer will arrive tomorrow.')
10. Dadating bukas si abogadong mataba.  
Dadating/bukas/si abogado/-ng/mataba.  
will arrive/tomorrow/lawyer(='Oscar')/who/is fat  
(i.e., 'Mr. fat lawyer will arrive tomorrow.')
11. Dadating bukas si (ma)taba.  
Dadating/bukas/si (ma)taba.  
will arrive/tomorrow/the fat one(='Oscar')  
(i.e., 'Mr. fat will arrive tomorrow.')

Unlike English, however, Tagalog requires that the embedded #S# have a structure which is more restricted than that of English. In English, a noun of the embedded #S# must be identical to the head noun in the matrix #S#. For example:

12. The child who ate the meat is drinking the milk.
13. The child is drinking the milk.
14. The child ate the meat.

Example 14 is the embedded #S# of example 12. Example 13 is the matrix #S# of example 12. The noun child of example 14 is identical to the head noun child of example 13. There is no requirement that the noun child of example 14 (the embedded #S#) have any particular function. For example, an equally possible embedded #S# would be the following:

15. I gave the meat to the child.

And this would generate the following:

16. The child who I gave the meat to is drinking the milk.

On the other hand, Tagalog requires more than that a noun of the embedded #S# be identical to the head noun in the matrix #S#. It also requires that the identical noun in the embedded #S# have the grammatical function of subject. A better known and more descriptive term for subject in Tagalog is "focus." I shall use this term. Focus is marked by si or ang (above and in the following examples).

17. Umiinom nang gatas ang bata.  
Umiinom/nang gatas/ang bata.  
drinking/the milk/the child  
'The child is drinking the milk.'
18. Binigyan ko nang karne ang bata.  
Binigyan/ko/nang karne/ang bata.  
was given/by me/the meat/the child  
'The child was given the meat by me.'
19. Umiinom nang gatas ang batang binigyan ko nang karne.  
Umiinom/nang gatas/ang bata/-ng/binigyan/ko/nang karne.  
is drinking/the milk/the child/who/was given/by me/the meat  
'The child who was given the meat by me is drinking the milk.'

Example 18 is the embedded #S# of example 19. Example 17 is the matrix #S# of example 19. The noun bata 'child' of example 18 is identical to the noun bata of example 17. Also, the identical noun bata of example 18 (the embedded #S#) is marked by ang. It marks the noun bata as the focus of the sentence. This is necessary if example 19 is to be generated.

If, instead of example 18, the embedded #S# were one in which bata is not the focus of the sentence as in the following example

20. Binigay ko sa bata ang karne.  
Binigay/ko/sa bata/ang karne.  
was given/by me/to the child/the meat  
'The meat was given to the child by me.'

then the resulting sentence of example 19 could not be generated; indeed, no sentence with a relativization of bata would be possible.

The consequences of relativization are different in the two languages. English relative clauses, whether restrictive or non-restrictive, follow the head of the noun phrase. They are not allowed to precede it. The following, example 21, is ungrammatical:

21. The who I gave the meat to the child is drinking the milk.

Tagalog restrictive relative clauses, on the other hand, may precede the head of the noun phrase. The following, example 22, is grammatical:

22. Umiinom nang gatas ang binigyan ko nang karneng bata.  
Umiinom/nang gatas/ang/binigyan/ko/nang karne/-gn/bata.  
is drinking/the milk/the/was given/by me/the meat/who/child  
'The child who was given the meat by me is drinking the milk.'

Whether all restrictive relative clauses or just some, and if some, which ones, may precede the head of the noun phrase is not clear at present.

Another consequence is that English relative clauses are introduced by relative pronouns, for example, who, which, and that. Their grammatical function is that of the noun they have replaced. To illustrate, the grammatical function of who in the sentence of example 16 is that of indirect object since it replaces child of the embedded #S# (example 15), where child is an indirect object. But the grammatical function of who in the sentence of example 1 is that of subject since it replaces wife, which is the subject of the embedded #S#.

On the other hand, the bound morph -ng (translated as who in the Tagalog example 19) does not have the same grammatical function as the noun bata which has been deleted from the embedded #S# (example 18). The function of the bound morph -ng is merely to connect the relative clause to its head. Observe that in example 19 -ng is bound to bata 'child,' while in example 22 it is bound to karne 'meat.' An alternate of -ng is an unbound na, which you will find in examples 5 and 8. These allomorphs occur according to certain restrictions dictated by phonologically conditioned morphophonemic rules.

The foregoing discussion is the sort of contrastive analysis which is possible with transformational theory as a frame of reference. I hope it proves useful.

## LANGUAGE LESSONS BASED ON TRANSFORMATIONAL ANALYSIS

Lois McIntosh

The teacher of English as a second language who has kept up with all the developments in language analysis and comparison in recent years finds his work both complicated and simplified. It is complicated because we are learning more and more about the English language not only its surface structure but its deep grammar. Empirically derived insights, so long the resource of the language teacher lacking training in linguistics, have yielded to increasingly exact formulations of the generation of sentences in English itself and also in English as contrasted with other languages.

On the other hand our task is simplified because we can derive from phrase markers, phrase structure rules, and transformational rules information that can be adapted, though not completely, to classroom procedures.

The language teacher must be able to understand and draw on the analytic descriptions and contrastive studies of English and the language of the learners of English. But he must also be a teacher of language and where there is a conflict between strict following of a linguistic formulation and the language needs of the learner, the latter must take preference with us.

In arranging a series of lessons in the English language, the demands of English structure will undoubtedly dominate the sequence. For example, we would not introduce restrictive relative clauses before we had taught the basic or kernel sentences from which such clauses derive. But within a given structure--such as relative clauses--we will organize and emphasize our details according to the information we have from the first language of the learner. We will proceed differently in presenting the teaching problems of relative clauses to a speaker of French or Spanish than we will to a speaker of Tagalog. When relative clauses are taught against the background of a similar structure in Tagalog, at least six and probably eight different problems arise and must be sequenced with attention to the structural contrasts of Tagalog.

Robert D. Wilson pointed out in the preceding paper that the modification by relative clause in Tagalog is limited to the ang marked feature of the constituent sentence. The topic, marked by ang, permits a construction that can be somewhat equated with relative clause modification in English. The device for embedding is not the same. Where English retains in the relative pronouns who/which the function of the nouns they replace, Tagalog does not. The relative pronouns will be new. The retained function will be new. The forms for human versus non-human will also be new.



is established by positioning the matrix on the left. Manipulation of the material yields to communication by degrees.

In lesson One, we begin with a structure similar to one in Tagalog, but as we go deeper into the problems of the English relative clause construction we go farther away from their first language. The lesson spells out only two teaching problems: who/which clauses as modifiers of the noun subject of intransitive verb statements; who/which clauses as modifiers of any noun phrases in the sentence. The possibility of that as a substitute for who or which is not brought in at this time. The particle -ng in Tagalog is frequently translated as that and we wish to prevent any association that will tend to equate the Tagalog construction with the very different one in English.

Lesson Two involves the relative clause derived from the object of the constituent sentence which presents several problems:

$$\text{NP} \left\{ \begin{array}{l} \text{whom} \\ \text{which} \\ \text{that} \\ \emptyset \end{array} \right\} \text{NP} + \text{VP}$$

(The man to whom I spoke; the man that I spoke to; the man I spoke to)  
(The book which I read; the book that I read; the book I read)

All these result from this construction and need step by step presentation. Into Lesson Two must go considerations of style level too. It is not productive to have the student produce sentences without some sense of how and where they are to be used: the contrast of the man to whom I spoke and the man I spoke to needs some comment and practice.

A third lesson for the relative clause introduced by whose is needed. Here the problem is compounded by both languages. Tagalog can't do it. It can have The man has a book on the table, but not the man whose book is on the table. When it comes to constructing oral drills in English, we may get some very peculiar ones:

This is the man. You know his wife.

This is the man whose wife you know.

However, if we take examples such as these from a light-hearted essay in The New Yorker (April 16, 1966), and if we center the lesson around a style of writing, we may be nearer its productive use:

....whole types and classes of humanity whose existence might otherwise be unsuspected

....That there are people...whose great need in life is....

....The class of gentry for whose benefit....

Related to whose are the of which constructions. Clauses of the place WHERE and time WHEN variety should follow those of the

which/whom/that/∅. Relative clauses with be as the verb will yield --by deletion--appositives, locative post modifiers (the man outside) and adjective modifiers.

At the very end of the list, I would place non-restrictive clauses. The native speaker has trouble with this structure--struggling to put in commas or leave them out. Guided by pauses and intonation and general meaning, he manages to make sense of this. To the foreign student, the clauses look and sound alike. The non-restrictive clause, probably derived from a co-ordinate rather than a dependent sentence, has not yet been fully described. The restrictive relative clause as modifier of the noun is productive and valuable, and of itself offers many problems to be worked out in lessons.

The terminology in the lessons is for the student. There is no attempt to involve him in the vocabulary of generative-transformational procedures, even though he is going through the processes described by that analysis.

To sum up: The language teacher looks to language analysis and contrastive studies for reliable information to replace guess work. He finds much to shape the procedures of his lessons by turning to these sources. He also continues to teach language to the learner, in terms by which the learner may profit.

### Lesson One

#### Aims:

1. To introduce restrictive relative clauses as modifiers of nouns in English to adult speakers of Tagalog, who have had several years of English.
2. To sequence the presentation on the basis of a contrastive study of the form and scope of this structure in English and Tagalog.
3. To present the material of this lesson in spoken and written American English that will be suitable to the age and interests of adult college students and useful for their further control of the language.

#### Step 1:

A brief conversational exchange serves to introduce examples of a sentence in which the noun phrase is subject of an intransitive verb, and the relative clause is modifier of the subject.

One: Listen to this conversation:

- A. What kind of girls go to this university?
- B. What a question! All kinds of girls: Girls who study hard, girls who never study, girls who dance well, girls who dress well, girls who speak to you, girls who don't speak to you--they all go to this university.
- A. That's enough. I'd like to meet just one of those girls.

Step 2:

After hearing the conversation, the class will repeat it after the teacher, once or twice. This is not material to be dwelt on and internalized. It serves merely to introduce the subject under discussion and set the context for the drills that follow.

Two: Repeat the conversation after me.

Step 3:

Questions will elicit the structure to be introduced and lead into a comment or generalization that will focus attention on the structure and prepare the class for the practice that follows. (When the subjects in two basic sentences are the same, the second sentence can be added to the first by changing the noun subject to who and adding this relative clause immediately after the subject.)

Three: Answer these questions:

- |  |   |
|--|---|
|  | (Expected Response)   |
| a. Do girls go to this university?           | (Yes, they do.)   |
| b. Do girls who study go to this university? | (Yes, they do.)   |
| c. What other girls go?                      | (class lists the others until all sentences with <u>who</u> clauses have been produced) |

Look at these sentences:

Girls	go to the university.	Are the subjects the same?	(Yes.)
Girls	study.		

Substitute who for girls in the second sentence: who study  
Add it to the first sentence immediately after the subject:

Girls who study go to the university.

Step 4:

The drills include (a) embedding the second or constituent sentence of a pair with identical subjects into the first or matrix sentence and (b) completion of sentences by embedding clauses from furnished clues.

**Four:** (a) Combine the following sets in the same way. Add each clause to sentence one:

Girls go to the university.

1. Girls never study
2. Girls dance
3. Girls dress well
4. Girls speak to you
5. Girls don't speak to you

(b) Make single sentences of the information in these two columns, by making who clauses of the sentences in the second column. Be sure that you add the who clause to a sentence where it will make sense:

(1)

- a. Girls make poor grades
- b. Girls make the dean's list
- c. Girls have many friends
- d. Girls spend lots of money
- e. Girls don't make friends

(2)

- Girls dance well  
 Girls dress well  
 Girls study hard  
 Girls don't study  
 Girls speak to you  
 Girls don't speak to you

(c) What about the boys at this university? Can you fit them into six sentences like those above? Change all the subjects from girls to boys and try to combine the sentences.

Example: Boys who dance well have many friends.

### Step 5:

Clauses introduced by which are introduced next. Notice that even in the first set of drills the intransitive verb sentence was not the only kind used in the drill. The next examples include other sentence types. The clause structure is still limited to who/which in subject position, and the modification is still limited to the noun phrase subject of the matrix sentence. (When the subject of a sentence refers to anything except people, the relative pronoun replacing the subject is which instead of who.)

**Five:** Notice these sentences:

There are classes which meet three times a week.

The classes which meet every day carry more credit.

(a) Combine these pairs of sentences into a single sentence containing a which clause.

Example: Classes carry more credit. Classes meet every day.  
 Classes which meet every day carry more credit.

A library can serve the entire university.

1. A library has several branches
2. A library has thousands of books
3. A library has a large staff
4. A library has comfortable reading rooms
5. A library has a good reference department

(b) Combine the information in columns one and two, by making which clauses of the sentences in the second column. Be sure that the resulting sentences make sense.

(1)	(2)
Classes are well attended	Classes meet every day
Classes are not popular	Classes have good lecturers
Classes annoy some students	Classes require student discussion
Classes attract some students	Classes are limited to fifteen students
	Classes have several hundred students
	Classes have daily quizzes
	Classes start on time
	Classes don't start on time

(c) Combine these sentences in the same way, using who or which to introduce the relative clause, as required:

Boys and girls attend the university	They only want to make friends
The classes interest them	The classes don't require much work
The professors do not admire these students	The professors respect hard work
Hard work appeals to some students	Hard work results in good grades

Step 6:

We move on to introduce relative clauses as modifiers of noun phrases functioning as objects--direct, indirect, and as heads of prepositional phrases. (These examples show that English permits a relative clause as modifier of any noun phrase in the sentence. The clauses are not limited to modifying the subject.)

Six: Listen to this conversation:

- A. What happened to that girl who took chemistry with us last semester?
- B. She flunked the two courses which were required for graduation. Now she's at a school which has easier requirements.

(a) Find the clauses introduced by who and which.

Is girl the subject of the first sentence?

Is it object of the verb? of a preposition?

Is two courses subject or object of the verb?

What is the function of school in at a school?

(b) Combine these sentences by adding a who or which clause to the first sentence of each pair.

- |                              |   |
|------------------------------|---|
| 1. I spoke to the man.       | The man was waiting for class to begin.                     |
| I noticed the student.       | The student was taking notes.                               |
| I watched the girl.          | The girl was copying the student's notes.                   |
| I saw the notes.             | The notes were not accurate.                                |
| 2. Boys admire girls.        | Add five clauses describing the kinds of girls boys admire. |
| 3. Students prefer classes.  | Make clauses describing your preference in classes.         |
| 4. Students like professors. | Make clauses of your own preferences.                       |

Assignment for Lesson One:

Describe the following subjects and people using clauses introduced by who or which.

Example: Linguists are men who describe languages.

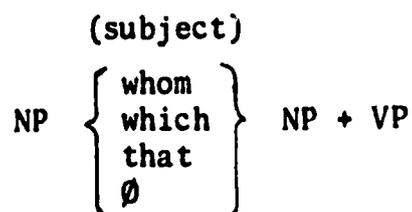
Chemistry is the science which treats substances and their transformations.

A	B
Mathematics	Musicians
Physics	Artists
Botany	Writers
Biology	Statesmen
Geology	Politicians

Add five more subjects to Part A and five more people to Part B and describe them in similar sentences.

Lesson Two

This lesson deals with relative clauses of the pattern:



It will involve the following steps, bearing in mind that we are moving farther and farther from any resemblance to Tagalog structure:

- 1a. which replacing the noun object of the constituent sentence.
- 1b. that replacing which in the same sentences.

- 2a. who(m) and to whom as the formal personal replacement of the object.  
 2b. that as the informal, personal replacement of the noun object.  
 3. Deletion of that when it replaces the noun in object position.

Step 1:

One a: Compare these sentences:

- (a) I read a book. The book interested me.  
 I read a book which interested me.  
 (b) I read a book. I enjoyed the book.  
 I read a book which I enjoyed.

In sentence (a) which replaces the subject of the second sentence: book.  
 In sentence (b) which replaces the object of the verb enjoyed: book.  
 Having replaced the object, which moves to the head of the sentence and joins it to the first sentence.

Exercise: Change each of the underlined objects to which. Then join the sentences as in the example:

These are books. I use them for reference.  
which

These are books which I use for reference.

Now let me take you on a tour of the campus:

- a. This is a classroom. I designed it.  
 b. This is a laboratory. We're modernizing it.  
 c. This is my office. I furnished it myself.  
 d. This is an electric typewriter. I just bought it.  
 e. Here are some pictures. I took them on my last trip.  
 f. Here are some articles. You'll find them interesting.

One b: Notice these sentences:

This is the classroom which I designed.

This is the classroom that I designed.

In spoken English that frequently replaces which in clauses like these.

Exercise: Combine the sentences in the exercise (above) again, this time using that to replace the underlined objects.

Step 2:

The lesson began with which rather than with whom because the form which is the same in all functions, and because whom presents a problem in usage which will be taken up next.

**Two:** Compare these sentences:

I saw a friend. The friend spoke to me.

I saw a friend who spoke to me.

I saw a friend. I spoke to the friend.

I saw a friend to whom I spoke.

I saw a friend whom I spoke to.

I saw a friend that I spoke to.

When who replaces a noun in object position, the form is whom. In spoken English whom sometimes loses the m, unless it is preceded by a preposition: to whom I spoke. With or without a preposition whom is considered formal in speech.

That, which replaced which, can also replace whom in a clause of this construction.

Exercise: Join the following sentences first using that to replace the underlined personal objects:

Example: There's the football coach. You've heard about him.

There's the football coach that you've heard about.

Here are some campus celebrities:

a. There's the tennis champion. Everybody admires him.

b. There's the scientist. The world honors him.

c. There's the football coach. You must have read about him.

d. There's the dean. Everybody knows him.

e. There's our secretary. We rely on her.

Exercise: Produce more formal sentences by using whom to replace the underlined personal objects.

Example: There's the football coach about whom you have heard.

### Step 3:

We move now to the replacement of the object. This has been postponed until now because Tagalog speakers may be reminded that this is roughly what happens when T-#S# is added to an ang marked topic. It ceases to be a sentence. (This is not what happens in English. In English speech, when the clause to be added to the first sentence is quite short, the relative pronoun replacing the object can be omitted. The symbol  $\emptyset$  simply stands for the deleted relative pronoun.)

Compare these sentences:

This is the classroom. I designed it. (which, that,  $\emptyset$ )

This is the classroom which I designed  
                                   that I designed  
                                    $\emptyset$  I designed

There's the football coach. You have heard about him.

There's the football coach about whom you have heard  
whom you have heard about  
that you have heard about  
 $\emptyset$  you have heard about

Exercise: Read the sentences in Step 1 again. This time connect them and omit the relative pronoun. Notice that you will not have an object in the clause--nor a relative pronoun replacing it.

This is the classroom I designed  
 That's the friend I told you about

Exercise: Join these questions in the same way:

Do you know the student? You sat next to the student.  
 Who is that girl? You smiled at her.  
 Did you enjoy the movie? You saw the movie last night.  
 Did you enjoy the hours? We spent them in the laboratory.

Assignment: What does education consist of? Is it the books you read, the classes you go to, the people you meet?

Develop this idea from the sentences listed here and from sentences that you add to the list.

Begin: Education consists of .....  
 we attend lectures; we spend hours in the library; we do research; we complete projects; we take classes; we drop classes; we take examinations; we pass examinations; we fail examinations; we win honors; we pay fees; we experience disappointment; we face trouble; we accept success.

The detailed lessons end here. To continue with relative clause constructions I would work out lessons in this order:

1. whose, of which with examples and procedures based on written language where this structure fits best.
2. where, when: the place where, the time when
3. Clauses with BE + NP resulting in appositives
4. Clauses with BE + Loc resulting in post-modifiers
5. Clauses with BE + Adj resulting in adjective modifiers before the noun
6. Non-restrictive elements derived from co-ordinate constructions

## GUIDELINES FOR PLANNING CLASSES AND TEACHING MATERIALS

Clifford H. Prator

In a paper delivered in Minneapolis, which has since been printed in NAFSA Studies and Papers, English Language Series, No. 10 (pp. 57-62), under the title "Development of a Manipulation-Communication Scale," I tried to point out that, under the influence of the linguists, we language teachers had come to attach an almost obsessive importance to the systematic nature of language and seemed to be overlooking the significance of its communicative function. In practice this has led in many recent textbooks to serious overuse of imitative, repetitive drills of a rigidly structured type, and to almost complete neglect of exercises of a communicative sort, in which the student is encouraged to express his own thoughts and allowed to choose from his already internalized inventory the necessary words and grammatical structures. I called the imitative activities "manipulation" and the other kind "communication." My contention was that these texts that contained only manipulative exercises made it very difficult for a teacher to bring his students to the point of communicating in the classroom and thus to give his classes a sense of direction. The distrust of communication and the resulting failure to study the ways in which it could be approached gradually also deprived the teacher of guidelines for organizing his work at advanced levels of instruction, where students simply must be given their head. The paper represented an attempt to indicate how such a sense of direction could be achieved and how such guidelines could be found.

It urged that a class hour should normally begin with manipulation and end with communication, moving by gradual stages from the one to the other. It argued further that the same progression should characterize the movement from elementary to advanced instruction, with manipulation predominating in the former and communication in the latter. It expressed the opinion that existing courses of study too often passed from a year or two of almost pure manipulation to years of unbridled communication, without going through the necessary long and slow transition during which the two elements were blended in carefully measured proportions. In other words, it advocated allowing some communication earlier and requiring some manipulation later than is the usual current practice.

The paper maintained that, for our purposes, the simplest and the most serviceable definition of manipulative activities is those in which the student is required to imitate immediately a model supplied by teacher, tape, or textbook. Communicative activities would then be those in which no direct model is supplied but the student himself finds the sounds, vocabulary, and patterns needed to express

what he wishes to communicate. Thus defined, manipulation minimizes the possibility of error on the part of the student, whereas communication allows him full freedom to make mistakes. Naturally, this free rein is given him only when the teacher is reasonably certain that he can perform almost without error what he is asked to do. This consideration becomes the guideline for determining the speed with which the whole transition from manipulation to communication can take place. The progression from the one to the other is basically a matter of gradual decontrol.

When the various types of classroom activities are examined from this point of view, some are found to be entirely manipulative, such as the imitative repetition of a dialogue when the model for each sentence is provided by a tape. Others, such as original unrehearsed composition, are seen to be purely communicative. But most activities turn out to involve both manipulation and communication in varying proportions. Thus a dialogue memorized several days previously and then recited in class without a model to copy, while still predominantly manipulative, clearly contains some element of communication, since the student bears a greater responsibility for the choice of words and sounds and since the possibility of his making an error is greater than it was when he was first learning the dialogue.

It should then be possible to classify specific activities somewhere along a scale running from manipulation to communication. We could probably achieve a fairly high level of agreement in assigning activities to one of four categories: manipulative, predominantly manipulative, predominantly communicative, and communicative. Our guideline would lead us then to organize our classes so that exercises of the first type were followed by those of the second type, and so on through the series. It would give us a means of determining, for example, that double-repetition drills should follow rather than precede single-repetition drills.

Donald Bowen subscribed to this basic theory in the appendix entitled "Pedagogy" that he contributed to the Stockwell-Bowen-Martin contrastive analysis of The Grammatical Structures of English and Spanish (Contrastive Structure Series, University of Chicago Press, 1965, pp. 292-309). The appendix includes the most complete inventory I have yet seen of recommended language-teaching activities classified according to the kind of manipulation-communication scale described above. The drill types are listed under the following general headings, from most manipulative to most communicative: substitution, transformation, response, translation, indirect discourse, and free communication. Unfortunately, time will not allow me to give you a detailed summary of the contents of the appendix; I can only recommend it to those of you who may not already be familiar with it as a very helpful spelling out of the way the guidelines we have been discussing here can be used.

In a few respects, my own experience and convictions lead me to differ with the author of the appendix. Thus, the kinds of activities he groups under translation--which, incidentally, bear little resemblance to the type of translation that characterized some older methods of instruction--seem to me to be distinctly more communicative than the activities classified under indirect discourse. In a typical directed-discourse drill the teacher, after giving a sentence in the target language himself, asks a student to relay what he has heard to the rest of the class, beginning the new sentence with "He says that...." To be sure, in this situation the student has to change the person of the pronouns and sometimes the form of the verbs, but for the rest of the sentence he has only to imitate the model supplied by the teacher. It would appear that the student bears considerably more responsibility of choice and is more apt to fall into error when the cue is given to him in his mother tongue and he is asked to respond in the target language, supplying all the correct words and sounds himself and guided only by the correspondence in meaning between the two languages.

I also fail to understand how the author can condemn blank-filling and multiple-choice exercises on the grounds that they "do not supply adequate context or do not allow responses that are typical of normal linguistic participation." He feels that these types are useful in testing but do not perform the essential function of drills, which is "to provide sufficient repetition in meaningful context to establish correct habitual responses" (p. 295). Both blank-filling and multiple-choice exercises may be administered either as tests or drills. When they are used as tests, each item is presented only once, and the student is expected to respond by supplying or choosing a single word or a short phrase. But they can equally well be used as drills, fulfilling all the criteria that the author sets up: the teacher can give the stimulus in the form of a complete sentence, indicating the blank by a slight pause and a gesture, and asking that the response be a complete sentence containing the missing word; each individual sentence or the exercise as a whole can be repeated any desired number of times. The context is certainly as adequate, the response as "typical of normal linguistic participation" as is the case with substitution drills. In fact, what could be a more normal linguistic situation than to come to a point in a sentence where one has to seek or choose the proper word to add next? The guideline we have been discussing would suggest the need, especially at advanced levels of instruction, of more exercises of the blank-filling and multiple-choice type, which permit students to take a short step from manipulation toward communication. Of particular value is the skeleton composition where most of the text is given but in which certain key words must be supplied by the student or chosen from a short list of alternatives. Such compositions are, of course, merely an elaborate form of blank-filling or multiple-choice drill.

Earl Stevick treated the matter of guidelines for planning classes and teaching materials in a paper delivered at the Indiana-Purdue Foreign Language Conference in March, 1965, and published

along with the other conference papers as a special number of IJAL last January (Vol. 32, No. 1, pp. 84-93). The Stevick contribution bears the cryptic title, "UHF and Microwaves in Transmitting Language Skills."

For me, the most fascinating aspect of the paper is the way the author demonstrates once more his faculty for developing apt and striking terminology. He examines the transitions from exercise to exercise that can give a sense of direction to the class hour in terms of not two, but three dimensions: "muscular habituation," "responsibility," and "vividness." Muscular habituation is defined as referring to "drills and exercises of a highly systematic and repetitive kind aimed at development of muscular habits in sound production or in the use of grammatical patterns" (p. 85). Though Stevick's emphasis is slightly different, habituation seems to equate with what we have been calling manipulation. It should dominate the early stages of the lesson, the M-phase or manipulative phase, and is the necessary preparation for the more communicative activities that follow, the C-phase. Stevick's term, "habituation" may well be preferable to "manipulation." "Habituation" suggests a type of activity that is desirable, even indispensable--the proper connotation. On the other hand, "manipulation" has pejorative overtones and suggests something that one would like to avoid altogether.

The author's word for characterizing communicative activities is "responsibility," defined as including "the range of demands that may be made on a student: simple substitution, substitution with a correlated change elsewhere in the sentence, generation of a whole sentence in response to a visual stimulus, and so on" (p. 85). It is assumed that responsibility should gradually be transferred from the teacher to the students as the cycle of M-phase plus C-phase moves on toward its conclusion. The successive cycles are called "microwaves," hence the use of that term in the paper's title. Stevick adds to our theory of guidelines the suggestion that each microwave should be from 20 to 30 minutes long, so that the class would "receive the reward of communication in a new bit of the language at least once or twice an hour" (p. 88). This, presumably, would be the wave length in beginning courses; it appears obvious that at more advanced levels, where the bits of the language dealt with would have to be much larger, the wave length would be longer, possibly often extending beyond the limits of a single class period.

It is with regard to his third dimension, that of vividness, that I feel obliged to take issue with Stevick's guidelines. He states that "'vividness'" has to do with the degree of reality which meanings have in the mind of the student as he practices, and/or with his degree of interest in the content of what he is saying" (p. 85). Vividness is thus a sort of combination of comprehension and interest, and both of these get very short shrift indeed during the M-phase of the author's model microwave.

Stevick affirms the necessity for the "blind mimicry of meaningless sound" and the "brute manipulation of grammatical structures

in the absence of meaning" at the beginning of the cycle, though he admits that "very few [students] can thrive on large doses of it" (pp. 86-87). In other words, he proposes that a teacher should plan deliberately to allow vividness to sink in a graceful curve to zero during the M-phase, in the expectation of being able to raise it again to a high level during the C-phase by the introduction of meaningful and interesting communication (pp. 89-90).

My objections to this part of the theory are threefold. In the first place, I have yet to be convinced that any real language learning takes place in a classroom while the students are pronouncing sounds or manipulating grammatical structures which for them are completely devoid of meaning. I still believe that the essence of language learning is the association of forms with meanings, achieved by practicing the former in the presence of the latter. I am aware that there has been a certain amount of experimentation lately, seeking to determine the effect of divorcing form from meaning in the early stages of instruction, but I have seen no evidence that any advantages that might thus be gained are sufficient to compensate for the loss of student motivation that is inevitably entailed.

In the second place, I cannot accept the idea that vividness, which Stevick sees as resulting from comprehension and interest, is a quality that can be turned off and on at will every 20 or 30 minutes. A student's interest in his class is a cumulative thing that grows or dwindles over relatively long periods of time; to lose it too often is to diminish it permanently. I would urge that the highest level of vividness that can be achieved be maintained at all times, that interest is too important for learning ever to be sacrificed deliberately and that by careful planning a teacher can make it possible for students to perform even the most manipulative activity with full comprehension of meaning.

In the third place and by way of conclusion, I do not think that comprehension--or vividness--is a helpful guideline for planning classes and teaching materials. Communication, thought of in the very restricted sense in which we have defined it in this paper, is helpful because it can be easily measured and provided in systematically varying doses. So can manipulation or, if you prefer, habituation. But the presence or absence of comprehension is often difficult to prove objectively. It is a universal desideratum that should always accompany both manipulation and communication rather than a yardstick that may be of use in sequencing classroom activities or a compass that can point the way from one level of instruction to the next higher level.

## CONCERNING SUMMER INSTITUTES IN TESL

J. Donald Bowen

Since 1964, the U.S. Office of Education has supported summer institutes for training teachers of English as a second language under the National Defense Education Act, as amended. So far eleven of these have been held, one each at the University of Arizona, New York University, the University of Texas at El Paso, and two each at the University of Puerto Rico, Teachers College, Brooklyn College, and at UCLA. I have seen three of these in operation, teaching and administering in two and visiting another. From this and from other training experience I offer a few observations and suggestions and the reasons behind the suggestions in the hope of stimulating ideas and discussion that will lead to a more effective program of teacher training in ESL.

These notes were originally written in the form of a letter (19 August 1966) to Dr. Eugene E. Slaughter, Director of the Modern Language Institutes Branch, Division of Educational Personnel Training, of the United States Office of Education in response to his invitation to contribute to a general discussion on the problems of planning future institute training at a guidelines conference held in October 1966.

### Observations

1. To a large extent the pattern of training in NDEA TESL Institutes represents an evolution from the previously worked-out pattern of foreign-language Institutes. The FL experience was certainly valid and has been most helpful. Differences in the situations of FL and ESL should perhaps be analyzed to see how the differences might lead to recommendations for other kinds of approaches.
2. The Institutes, in particular the FL Institutes, have not had the influence some have hoped for on regular university programs. It is a common complaint that universities continue to turn out graduates that are in immediate need of Institute retraining.
3. NDEA Institutes have tended to insulate participants from regular university life. One reason for this is that most of the training is given during the summer, a time when the universities do "special" kinds of programs. Another perhaps more important reason is the exclusive curriculum normally included in Institute designs. Only sponsored participants are permitted to enroll in Institute classes, and usually participants are permitted only in special courses established for the Institute.
4. Institutes have been of uneven quality. Some have been very good, some less effective.

5. Institutes are frequently overintensive, demanding more of the participants than they are capable of giving, offering more than they are capable of absorbing. Former participants have told me that they seriously contemplated suicide at times during what was for them an unhappy ordeal.
6. Institutes are very demanding of the director and staff. I say this not by way of complaint, but just as an observation to inquire if there is any way to get better results from the same amount of energy. One thing I have noticed from my own experience is that an Institute requires (or perhaps only encourages) the Director to offer services which are provided by other administrative channels in the university, such as admission, housing, orientation. In many cases the Director must "tool up," learn administrative procedures for use during a short period of time that represent information he will later have little or no use for. I discovered that even in a second Institute the experience of the first one is not too helpful. Procedures change very fast. The Director has a secretary, but since she is a short-term employee the chances are she will not be experienced in the complexities of running a large university. The Director and the Secretary learn together, not always efficiently. The Director is a member of the regular university staff, who will not be able to avoid the normal responsibilities of his appointment. The extra duties imposed by the Institute may cause him to get behind in professional reading, research, course planning, and other activities that will affect his career.
7. Many universities have sponsored Institutes, but not many, especially the large ones most capable of offering special training, have accepted the summer Institute idea as a regular feature of their annual academic program.
8. Attendance and successful completion of a first level Institute is not necessarily adequate preparation for a second level. Partly this could be a result of poor planning and faulty articulation, but another possible conclusion is that attendance at one summer's worth of training brings a limited result.

The implications of all these observations is that there may be room for improvement in the kind of training we offer the profession. I should like to list a few ideas that might be the basis for a discussion of ways to improve training.

### Suggestions

1. Encourage more participation in academic-year programs. During the last year we have had four California teachers on our campus enrolled in the regular UCLA TESL program. I perceive a vast difference in their accomplishments and those of the summer Institute participants. New ideas need time to marinate; a summer program may allow neither the time nor the unhurried atmosphere to really permit an idea to take root.

2. Offer fewer but larger Institutes. This may not be a suggestion that would have merit in all fields where NDEA has provided support, but I believe it is a good suggestion for TESOL. Maybe one good Institute, moved from one university to another each year, would be better than the cumulative effect of the four or five that are currently sponsored. The model for this suggestion comes from the Linguistic Institute, which has a long and successful history working in this pattern.
3. Do not insist on exclusive registration. It has excluded some groups of people (foreign teachers, for instance) that could have made important contributions to a summer program. This should reduce the insulation that has weakened the potential effect the Institute might have on The University, and vice versa.
4. Do not restrict registration to sponsored students who are required to study full time. It is practically impossible to design a single curriculum that will please or serve the needs of a group of students such as those who apply for Institute training. A larger Institute would make it possible to offer more classes and allow the students to select those in which they have most interest. Also this pattern would attract more students who are truly interested in the field. This of course doesn't mean there shouldn't also be sponsored students, only that others need not be excluded.
5. Encourage international participation. Many good ideas could come from more contact with professionals from other countries who are working in TESOL. Students from abroad, even those who came to study in other fields, might welcome an opportunity to study TESOL for a summer since, having studied in the United States, they might well be asked to share the linguistic skills and know-how they acquired as students here.
6. Invite the cooperation of other government agencies. It would seem that the Peace Corps, the Information Agency, and perhaps the Agency for International Development would have interests that coincide closely with basic Institute aims. Perhaps they could supply lecturers or staff members for some faculty positions to help all of us take advantage of their extensive specialized experience.
7. Increase course offerings to include truly advanced courses. The fields of psycholinguistics and sociolinguistics, for example, are very relevant to language teaching, yet they are for the most part given quite superficial recognition in Institute curricula.
8. Consider the possibility of professional along with government sponsorship. I'd be happy to see TESOL or maybe TESOL and ATESL together sponsor a really good Institute. The model again is, of course, the Linguistic Institute sponsored by the Linguistic Society, which does a superior job. I can envision a really solid

series of lectures on the pattern of the Forum Lecture Series, where advanced research could be presented for a sophisticated audience. This particular series might not meet the specific needs of first-level-Institute-type students for basic professional orientation, but that would not necessarily be excluded. The important thing is that research lectures would set the tone of the Institute on a high professional level and would give it the strong prestige that would attract attention and reach the profession. Another possibility would be a summer meeting of TESOL, which might be desirable as the organization grows.

9. Find additional means of supporting students. I am particularly impressed by the ACLS method of financing summer study, where the applicant submits a budget of his estimated needs and is given a grant, if selected, to cover these needs--never less. One of the evaluation questions asked this year of Institute Directors was: "Would increasing the NDEA stipend help in attracting the kind of people who ought to attend summer Institutes?" My answer is an emphatic No. I do not think we should attempt to attract people to an Institute for the possible financial advantages--that could only lower the academic quality. As it is now the NDEA stipend system, even though it is designed to be as fair as possible, doesn't really succeed. The single participant who has to travel a considerable distance (we had one from Puerto Rico and two from the Pacific Trust Territories) doesn't benefit to the extent a nearby participant who has a numerous family does. I don't mean to suggest not using the NDEA formula for supporting students, only seeking other support (for the larger Institute I'm suggesting) to offer other students. One area of obvious need is for the Junior College Instructors who are trying to cope with foreign students; Instructors at this level are not now entitled to NDEA support.

I'd now like to list some of the justifications for the suggestions listed above, to add to those included in discussions of those suggestions.

#### Reasons

1. A larger Institute would make it easier to assemble a competent teaching staff. The Institute would become the most interesting place to spend a summer, and participation would enhance the status and prestige of both teachers and students.
2. A vastly enriched curriculum could be offered which could include instruction in exotic as well as in the bread-and-butter languages an ambitious ESL teacher might want to study.
3. Such an Institute would fill a need that is felt today, but will probably become more serious in the future. The Linguistic Institute has in the past offered courses in applied linguistics and has attracted students interested in TESOL. This past summer the

Linguistic Institute had rich offerings in such subjects as bilingualism, psycholinguistics, sociolinguistics, methodology of second-language teaching, contrastive analysis, teaching advanced students, teaching the native language, programmed instruction, the language laboratory, etc. Our NDEA Institute benefitted immeasurably from the presence of this rich curriculum, and I am personally very grateful for it. But this was an exceptional year; these courses were offered partly because of the UCLA interest in applied linguistics. The Linguistic Society may not wish to continue devoting its energies and resources to applied linguistics. At least one committee study on the direction which the development of the Linguistic Institute should take, urges more emphasis on theoretical linguistics and advanced study, less on introductory linguistics, language study, and (specifically) teaching English as a second language. I understand that this report has found substantial support in the Society. It is not unlikely, then, that in the future there will be relatively less emphasis on the applied areas, and the majority of foreign students who have attended past Institutes attracted by the language-teaching emphasis will have nowhere to turn, unless their need is provided otherwise. I suggest a TESOL Institute with primary emphasis on applied linguistics, particularly for language teaching and especially teaching English.

4. A very strong argument for an expanded TESOL Institute is the probability that we could get much more training for the money invested. The Linguistic Institute during the past summer at UCLA operated on a budget of about \$100,000 and trained 500 students. The present NDEA Institutes must have budgets of \$60,000 to \$90,000 (including stipend support) and train 30 to 60 students each. If we could pool the money spent on the five smaller efforts we could provide a fabulous Institute.

I am certainly aware that many problems are left unsolved, even unmentioned, by the remarks above. I propose them only as a basis for discussion in hopes better ideas might be developed. One obvious problem would be the source of financial support. Could a pattern of joint professional and NDEA support be worked out for sponsorship? Perhaps under existing legislation the answer would be no, but legislation can be changed especially by the summer of 1968, which is the earliest such an Institute could be organized. Personnel in the Office of Education who are responsible for carrying out the NDEA programs have always been receptive to any new ideas; indeed they have regularly invited them in reports, proposals and guidelines conferences such as the one scheduled for October 1966.

## THE LANGUAGE LABORATORY AND TEACHING PRONUNCIATION

Russell N. Campbell

The use of language laboratories (LL) to accelerate and complement the teaching of modern languages is becoming commonplace.\* One function of the LL is to review and reinforce what has been previously taught in the classroom. The intended reinforcement comes as a result of multiple mechanically produced opportunities to practice a given segment of the target language, e.g., repetitions of dialogs, sentence patterns or particular pronunciation problems.

There is a minimum of empirical evidence that current LL practices are making their maximum contribution to the teaching and learning of modern foreign languages. However, the consensus is that the additional exposure to the language made possible by the LL does indeed enhance the student's chances of learning the new language in a substantially shorter period of time.<sup>1</sup> Agreeing that this is so, I find it all the more remarkable in view of the apparent apathetic behavior of a high percentage of students during the LL sessions. Hocking quotes the following from a now rather widely disseminated confidential letter:

We are overlooking one serious need: materials which are not dead-end or damaging to student morale. For example, there is no first-year course available today which presents language learning as being fun or interesting. We have made great advances, to be sure, but we have not worked out a way to achieve these objectives except through types of exercises which are almost hypnotically repetitious and boring....

I have hopes that we will be able to write materials which will produce highly motivated students whose quality of performance will equal or surpass any that we have at present. Until this can be done we will continue to experience vandalism by students and our labs will be regarded by a large number of them as<sup>2</sup> an uncomfortable experience or at best as a necessary evil.

It reasonably follows that if current LL practices are appreciably contributing to the learning of modern foreign languages, they could perform an ever greater service if certain of the problems suggested by this characteristic observer were resolved. In this paper I would like to share with the reader an experience in teaching the pronunciation of Thai sounds to a group of American English speakers

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\* This article will appear in English Language Teaching, 1967.

in which the classroom activities were closely coordinated with LL activities and, at the same time, describe a technique which was designed to serve the following ends: (1) stimulate the student to give his undivided attention to the content of the LL materials by providing him with an immediate objective for his LL endeavors; (2) provide the teacher with an instrument to appraise his students' progress toward fulfilling a given objective; and (3) provide a joining link between the classroom and the LL activities.

The classroom presentation. A pronunciation problem was selected on the basis of the predictable difficulty speakers of English have with Thai sounds because of differences that exist between the two phonological systems.<sup>5</sup> For demonstration purposes I shall use the teaching of the contrastive Thai sounds /kh/ and /k/ as found in /khǎi/ 'egg' and /kǎi/ 'chicken'.

Step one. The objective of the lesson was announced. The students were informed that Thai speakers use a pair of sounds, which we would symbolize as /kh/ and /k/, to separate meanings of words, e.g., /khǎi/ and /kǎi/, the first of which can be translated 'egg' and the second 'chicken'. To underscore the point, the teacher would make some such statement as "You will appreciate the importance of this contrast between /kh/ and /k/ when someone brings you two chickens for your breakfast when what you really ordered was two eggs."

Step two. Following a generally accepted pattern, the next step was designed to develop the students' ability to discriminate aurally between the two sounds, that is, to be able to respond to /kh/ and /k/ as separate phonological units (phonemes) rather than varieties (allophones) of a single unit as in English (cf. Engl. [k'in] and [skin]). It was felt that just as the differences between any two nearly identical items are most easily observable when they are considered side by side rather than in isolation, the student would most readily hear the difference between any two phonological entities if they were presented together in identical environments. The students' attention was directed to the audible differences between the initial sounds in the following minimal pairs of words which are differentiated only by the difference between /kh/ and /k/:

/khǎi/ 'chicken'	/kǎi/ 'egg'
/khaa/ 'stuck'	/kaa/ 'crow'
/khuu/ 'pair'	/kuu/ 'borrow'
/kham/ 'word'	/kam/ 'grasp'
/khaw/ 'knee'	/kaw/ 'old'

Step three. Following this, a series of what are frequently called 'recognition' drills were presented to further develop their discriminatory skill. Samples of three such drills, which range from the least to the most sophisticated in terms of their demands upon the students to hear the contrastive features of the two sounds, are given below in their briefest possible form.

Type 1. Given two words, are they the same or are they different?

Teacher: /khái - kái/ Same or different?  
 Student(s): different  
 T: /khaa - khaa/  
 S: same  
 T: /kuu - khuu/  
 S: different

This drill was continued until the students were in nearly maximum correct agreement. That is, they could consistently hear when pairs of words were identical and when one contained /kh/ and the other /k/.

Type 2. Given three words, which are the same?

T: /khái - khái - kái/ Which are the same?  
 S: one-two (The response could be given in the target language.)  
 T: /khaa - kaa - kaa/  
 S: two-three  
 T: /kan - khan - kan/  
 S: one-three

Finally, from two columns of words, one of which contained words beginning with /kh/ (column 1) and the other with /k/ (column 2), the teacher presented the third and most sophisticated of the recognition drills.

Type 3. Given a single word, is it a member of the words of column 1 (/kh/) or column 2 (/k/)?

T: /khaa/ Column one or column two?  
 S: 1  
 T: /kaa/  
 S: 2

Additional recognition exercises would include the problem sounds in larger contexts such as /phom sýy kái/ 'I sell eggs.'  
 /phom sýy khái/ 'I sell chickens.'

Up to this point all activity has been directed toward training the student to discriminate aurally between the two sounds.

Step four. Having satisfied himself that the maximum benefit had been gotten from the recognition drills the teacher proceeded to the teaching of the production of the problem sound, in this case, /k/ (since the native speaker of English already has an aspirated variety of the voiceless aspirated velar stop [k'] in word initial position, e.g., in kill, can, come).

First the student was asked to mimic the instructor's pronunciation of the /k/ sound in words that he had already encountered

(e.g., in previously taught dialogs):

T: /kaa/ Repeat.  
 S: /kaa/  
 T: /kan/  
 S: /kan/  
 T: /kaw/  
 S: /kaw/

If the students could not readily imitate the instructor's production of the /k/, it was described to them in terms of its articulation. This was done with a rather technical description of the sound as the students had been taught the basic elements of articulatory phonetics at the beginning of the course. However, the descriptions of the sound could be couched in everyday terminology. For example: "This sound is very similar to the first sound in the English word 'kill'; however, whereas the English sound is followed by a puff of air, the Thai sound /k/ is not. Try to imitate my pronunciation of 'kill' without the following explosion of air." Or it might be possible to demonstrate the unaspirated variety of English /k/ as in 'skill' or 'skin' as a satisfactory rendition of Thai /k/. Whatever device the teacher uses to instruct the student in the articulation of the sound is, of course, acceptable.

Once the students had either the ability to mimic the new sound automatically, or at least to consciously articulate the sound in accordance with the teacher's instructions, the teacher provided the students with as much opportunity as possible to practice the production of the new sound. Words, phrases, sentences and dialogs were presented in that order for repetition by the students. As a final step the students were instructed to read words, phrases, etc., which contained the contrastive sounds without benefit of a model.

It was considered of utmost importance that the sound not be taught only in single words. Simple, but meaningful dialogs such as the following were an important part of each pronunciation lesson:

/khun jǎak cá sýy ǎrai khráp/	'What would you like to buy?'
/kǎi khráp/ or	'A chicken.'
/khǎi khráp/	'Eggs.'

The student would know immediately whether or not he was successfully communicating by the response he received, i.e., he was given either a chicken or eggs (not real, of course, just pictures or the teacher pointing to one of the words on the blackboard), depending on his response.

What has been briefly described constituted the usual format and content of a pronunciation class, that is, recognition drills, explanation and description of the articulation of the problem sound and maximum practice in the production of the sound. At the conclusion of

the pronunciation class, the teacher provided each student with a mimeographed LL assignment sheet which will be described below.

The Language Laboratory session. The LL session corresponding to the lesson outlined above was typical of all sessions which formed a part of the pronunciation course. Each student was issued a two part taped assignment. The first part was a programmed review of the material taught in the classroom, and the second part a taped achievement test. After a brief account of the first part of the LL assignment, it will be the description of the achievement test and its uses that are offered as a useful modification of LL techniques.

The review material had essentially the same format as the classroom presentation except: (1) it gave no suggestions or reminders as to the articulation of the problem sounds (that it could have done so seems quite reasonable in retrospect), and (2) after each pause for a student's response the tape gave the correct response. This provided the students with an immediate confirmation or correction of their responses. The drills were of both the recognition and production types. The typical answers provided by the tape for the recognition drills were simply 'same' or 'one-two' or 'column two'. For the students to check their responses against these, of course, offered no difficulty; however, for a student to check his production (imitation) against that of a taped model continues to offer certain problems which were not anticipated in the course which is being described:

The language laboratory tape as it is usually constructed provides for the reinforcement of the student response by allowing him to hear the correct version immediately after he has pronounced his own. This is theoretically sound, but it can result in reinforcement of incorrect pronunciation and intonation if certain aspects of the learning situation are not kept in mind. Without careful training, many students are unable to recognize the fine distinction between the correct sound of the voice on the tape and the sound they themselves have produced, or, if they do recognize the distinction, are uncertain what they should do to bring their faulty pronunciation closer to that of a native speaker.

The total elapsed time for the review part of the tape was usually between eight and ten minutes. The students were instructed to rerun the tape as many times as they wished, i.e., until they were satisfied that they could consistently give the correct responses to the recognition drills and could faithfully imitate the model in the production drills.

When the students concluded that they had reached that point (or simply had no additional time to give to the lesson), they were ready for the final phase of the pronunciation lesson, i.e., the

achievement test. Figure 1 shows a facsimile of the answer sheet given to the students at the end of the classroom presentation.) As can be seen, the various sections of the test call for precisely the same skills as did the recognition drills previously presented in the classroom and on the first part of the taped assignment. Part one of the test asks the student to demonstrate his ability to recognize words as being the 'same' or 'different'; part two, to specify which two of three words are the same; and, part three, to identify the initial sound of a single word as either /kh/ or /k/. The final part of the test covers material taught in this particular lesson and, in addition, asked the student to identify sounds taught in previous lessons, namely, /p ph b t th d/. The total test consumed only four to five minutes. The students could listen to the test items as many times as they wished since each repetition was offering exactly the type of practice that the tape was designed for. The word that comes to mind to describe the students' behavior during this part of the taped assignment is aggressive. Rather than the usual casual participation in the taped exercises, the students, almost without exception, gave the taped assignment their complete and undivided attention. As a final step, the students wrote in their responses on the answer sheet and left them with the LL assistant who in turn delivered them to the teacher.

Conclusion. For a number of students of modern languages, the long range goal of eventually learning the language and the anticipated satisfaction of being able to communicate in it is sufficient motivation for their sustained interest and study. For yet a larger number there is an apparent need for a more immediate objective if they are to apply themselves to the classroom and LL assignments. Skinner has implied that the stimulation that a student receives from being given an immediate confirmation of a correct response is a strong motivating factor. In essence the types of drill found in the classroom and LL review material described above are examples of this kind of motivation. But these are the same types of drills that have been found inadequate in their power to hold the students' attention during the LL session. This paper has described an additional dimension to LL techniques, the inclusion of a taped achievement test. This apparently simple addition proved to be the necessary ingredient that resulted in a difference between passive and aggressive participation in the exercises. With the knowledge that at the end of a given LL assignment he would be tested on the material presented and that that test would be judged by the teacher, the student made maximum use of the time and materials available to him to learn that particular feature of the language. Whether the teacher's reaction to the test results is reflected in grades or simply in praise for a job well done does not seem to alter the students' desire to perform well on the test. The fact that the test served as a powerful stimulus is sufficient reason to consider similar devices for other aspects of the language learning process.

The teacher's use of the test results is apparent. Certainly he will have a better understanding of how successfully he has taught

## ANSWER SHEET TO TAPED TEST

PART ONE:

Indicate whether the following pairs of words are the same or different. All words begin with either aspirated /kh/ or unaspirated /k/.

- |          |           |
|----------|-----------|
| 1. _____ | 6. _____  |
| 2. _____ | 7. _____  |
| 3. _____ | 8. _____  |
| 4. _____ | 9. _____  |
| 5. _____ | 10. _____ |

PART TWO:

Indicate which of the words are the same in the following sets of three. Your answer will be either 1 - 2, 1 - 3, or 2 - 3.

- |          |           |
|----------|-----------|
| 1. _____ | 6. _____  |
| 2. _____ | 7. _____  |
| 3. _____ | 8. _____  |
| 4. _____ | 9. _____  |
| 5. _____ | 10. _____ |

PART THREE:

Write the symbol for the initial sound of the following words. Either /kh/ or /k/.

- |          |           |           |
|----------|-----------|-----------|
| 1. _____ | 6. _____  | 11. _____ |
| 2. _____ | 7. _____  | 12. _____ |
| 3. _____ | 8. _____  | 13. _____ |
| 4. _____ | 9. _____  | 14. _____ |
| 5. _____ | 10. _____ | 15. _____ |

PART FOUR:

Write the symbol for the initial sound in the following words. All the initial consonant stops are represented. /p ph b t th d k kh/

- |          |           |           |           |
|----------|-----------|-----------|-----------|
| 1. _____ | 6. _____  | 11. _____ | 16. _____ |
| 2. _____ | 7. _____  | 12. _____ | 17. _____ |
| 3. _____ | 8. _____  | 13. _____ | 18. _____ |
| 4. _____ | 9. _____  | 14. _____ | 19. _____ |
| 5. _____ | 10. _____ | 15. _____ | 20. _____ |

Figure 1

the given segment of the language and thus to what extent re-presentation and review would be necessary in subsequent lessons. Finally, since the taped test included items taught in previous lessons, the teacher was provided with an indication of the need for review of those items as well.

There are undoubtedly many ways in which the LL can be used to maximize its contribution to the teaching and learning of modern foreign languages. Whatever other positive attributes they may have, they must also be understood by most students to have relevance to some immediate objective. It is in this light that the taped homework assignment with its included test is recommended.

#### REFERENCES

- <sup>1</sup> A notable exception is found in: Raymond F. Keating, A Study of the Effectiveness of the Language Laboratory. New York: Institute of Administrative Research, Teachers College, Columbia University. 1963.
- <sup>2</sup> Elton Hocking, Language Laboratory and Language Learning. Washington: Department of Audiovisual Instruction of the NEA. 1964. pp. 33-34.
- <sup>3</sup> E. M. Anthony, "On the predictability of pronunciation problems," English Language Teaching. 11 (1957), 120-122. The format of this lesson is similar to those found in: R. Lado and C. C. Fries, English Pronunciation. Ann Arbor: The University of Michigan Press. 1954; and especially, R. N. Campbell, English for Thai Speakers: Pronunciation. Bangkok: The Ministry of Education. 1961.
- <sup>4</sup> Wilga Rivers, The Psychologist and the Foreign Language Teacher. Chicago: The University of Chicago Press. 1964. p. 155.
- <sup>5</sup> B. F. Skinner, Verbal Behavior. New York: Appleton-Century-Crofts. 1957.

## ANALYSIS AND SYNTHESIS

### TWO STEPS TOWARD PROFICIENCY IN COMPOSITION

Earl Rand

It is not uncommon to hear that the ESL student may know all the words of a sentence yet fail to understand the meaning of that sentence. Or that he may know all the details and generalizations yet still not be able to organize them into a coherent, acceptable essay. In this note, I want to report on a relatively simple sequence of exercises for developing reading skills and writing fluency.

#### Comprehension Format

The materials consist of a well-written passage of two or three hundred words or more, judged as difficult for the class. I have also tried to pick passages from articles considered to be basic in the field. The students are directed to paraphrase the passage

- (1) using only simple, active sentences,
- (2) omitting the transition words,
- (3) using antecedents (i.e., not pronominalizing), and
- (4) inserting empty forms or "dummy" elements (e.g., indefinite pronouns someone, somewhere and others wherever they have been deleted as in the change from active to passive mood. With extensive use of this technique, anaphoric definite articles might also be replaced by indefinite articles.

I have found it most convenient to present the passage on the left side of the paper, leaving the right side clean for the student to write his paraphrase. In the sample below, the paraphrase to be written by the student is included in script. The number of sentences in the paraphrase for each original sentence may be indicated in parentheses. Note the paraphrase is not made up of technically "kernel" sentences but of sentences which are considered ad hoc to be basic to the structure of the original sentences. The exercise is immediately corrected and discussed in class.

#### COMPREHENSION FORMAT

- |                              |   |
|------------------------------|---|
| 1.* The human body is about  | <i>The human body is about 65 percent</i> |
| 65 percent water, 15 percent | <i>water.</i>                             |
|                              | <i>The human body is about 15 percent</i> |
|                              | <i>protein.</i>                           |

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\* This is the first paragraph of L. Pauling, R. B. Corey, and R. Hayward, "The structure of protein molecules," Scientific American (July 1954).

proteins, 15 percent fatty materials, 5 percent inorganic materials and less than 1 percent carbohydrates.

2. A molecule of water consists of three atoms, two of hydrogen and one of oxygen.

3. The structure of this molecule has been determined in recent years: each of the two hydrogen atoms is 0.96 Angstrom unit from the oxygen atom (an Angstrom unit is one ten-millionth of a millimeter), and the angle formed by the lines from the oxygen atom to the hydrogen atoms is about 106 degrees.

4. Compared to this simple molecule, a protein molecule is gigantic.

5. It consists of thousands of atoms, mostly of hydrogen, oxygen, carbon, and nitrogen.

*The human body is about 15 percent fatty materials.*

*The human body is about 5 percent inorganic materials.*

*The human body is about 1 percent carbohydrates.*

*A molecule of water consists of three atoms.*

*Two atoms are of hydrogen.*

*One atom is of oxygen.*

*Someone has determined the structure of this molecule in recent years.*

*Each hydrogen atom is 0.96 Angstrom unit from the oxygen atom.*

*An Angstrom unit is one ten-millionth of a millimeter.*

*The lines are from the oxygen atom to the hydrogen atom.*

*The angle is about 106 degrees.*

*We (or someone) compare a protein molecule to this simple water molecule.*

*A protein molecule is complex and gigantic.*

*The protein molecule consists of thousands of atoms.*

*Most of these thousands of atoms are hydrogen, oxygen, carbon, and nitrogen.*

6. The problem of how these atoms are arranged in a protein molecule is one of the most interesting and challenging now being attacked by workers in the physical and biological sciences.

*The problem is one of the most interesting and challenging problems.*

*The problem is that these atoms are arranged somehow in a protein molecule.*

*Workers are now attacking the problem. The workers are in the physical and biological sciences.*

### Synthesis Format

A week or so later, the synthesis part of the sequence is presented (see "SYNTHESIS FORMAT" below). The student is directed to cover the answer (in script below the lines on which to write) and combine the paraphrase, basic sentences into one sentence. He then immediately compares his own with that of the author's. Class discussion follows the completion of the exercise. He is urged (1) to place the new or main information in the independent clause and the secondary, supporting material in the subordinate clauses or in phrases, (2) to pronominalize, (3) to make a sentence with an unimportant actor-subject into a passive and then delete the by-phrase, and (4) to use transition words.

### SYNTHESIS FORMAT

1. The human body is about 65 percent water.  
The human body is about 15 percent protein.  
The human body is about 15 percent fatty materials.  
The human body is about 5 percent inorganic materials.  
The human body is less than 1 percent carbohydrates.

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*The human body is about 65 percent water, 15 percent proteins, 15 percent fatty materials, 5 percent inorganic materials and less than 1 percent carbohydrates.*

2. A molecule of water consists of three atoms.  
Of the three atoms, two are hydrogen.  
Of the three atoms, one is oxygen.

*A molecule of water consists of three atoms, two of hydrogen and one of oxygen.*

3. Someone has determined the structure of this molecule in recent years. Each hydrogen atom is 0.96 Angstrom unit from the oxygen atom. An Angstrom unit is one ten-millionth of a millimeter. The lines are from the oxygen atom to the hydrogen atom. The lines form an angle of about 106 degrees.

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*The structure of this molecule has been determined in recent years: each of the two hydrogen atoms is 0.96 Angstrom unit from the oxygen atom (an Angstrom unit is one ten-millionth of a millimeter), and the angle formed by the lines from the oxygen atom to the hydrogen atoms is about 106 degrees.*

4. We can compare a protein molecule to this simple(,small water)molecule. A protein molecule is (complex and) gigantic.

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*Compared to this simple molecule, a protein molecule is gigantic.*

5. The protein molecule consists of thousands of atoms. Most of these thousands of atoms are hydrogen, oxygen, carbon and nitrogen.

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*It consists of thousands of atoms, mostly of hydrogen, oxygen, carbon, and nitrogen.*

6. The problem is one of the most interesting and challenging problems. The problem is that these atoms are arranged somehow in a protein molecule. Workers are now attacking the problem. The workers are in the physical and biological sciences.

*The problem of how these atoms are arranged in a protein molecule is one of the most interesting and challenging now being attacked by workers in the physical and biological sciences.*

### Discussion

The comprehension (or analysis) format in which the student breaks down the original sentence gives him practice in discovering the basic information and relationships much as the author himself did in originally composing the sentence and passage. The student must clearly see how the author bridges from old or given information to new information, and how he deletes material to avoid redundancy. As a bonus, this exercise gives the student practice in deciding what part of the sentence he fails to understand; thus instead of asking the general question "What does this sentence mean?", he learns to focus on the unknown and may ask, for example, about sentence 6 in the sample passage, "What is most interesting?"

The synthesis format allows the student to wear the author's shoes. He has the facts as the author did, and now he must weigh them to decide which to focus on (make independent) and which to place in the background (subordinate). He must decide what is old or already given and what is new information, what and how to pronominalize or delete, and how to move smoothly from one clump of information to another.

I have used this type of exercise in our 106J Advanced Composition for Foreign Students and in our 33B Intermediate English courses. Those 106J students who have attained almost native English fluency can profit from doing only the synthesis format after having practiced on a few passages in the comprehension format. However, the intermediate students seemed to work better (faster, with fewer errors) if they always received the exercises in the sequence analysis before synthesis.

### Conclusions

This is only one of many types of exercises one can devise and place on a scale ranging from highly structured manipulatory exercises to free communication in reading and writing. Others were reported by William R. Slager at the NAFSA conference in Houston in November 1966.\* The exercises I am reporting on here are obviously easy to construct and can almost be tailored to subgroups in the class, e.g., students of engineering, chemistry, or sociology. The student is led to understand what a good writer unconsciously does in writing a passage, and the student gets a chance to recreate the passage himself and immediately check his work. The teacher is not burdened with another set of papers written with too much freedom and, consequently, demoralizingly full of all sorts of errors.

\*William R. Slager, "Controlling composition: some practical classroom techniques," NAFSA Studies and Papers, English Language Series, No. 12. Edited by Robert B. Kaplan. (December 1966).

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