The potential value and limitations of contrastive linguistic analysis (CLA) in pedagogical application are examined in this article. Attempts to quantify learning tasks in the modes of difference and difficulty are illustrated by the use of four diagrams: (1) a method of computing actual learning tasks, (2) two contrastive continua, (3) a scheme of "similar-different" linguistic feature analysis, and (4) a comparison matrix. Concluding remarks bear on the necessity for both CLA and error analysis (EA) in the construction of foreign language instructional materials. (RI)
THE POTENTIALS AND LIMITATIONS OF CONTRASTIVE LINGUISTIC ANALYSIS

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Introduction

Currently much has been said about Contrastive Linguistic Analysis (CLA) and its pedagogical applications. This was the main topic of our Applied Linguistic Conference at the last two MLA meetings, we had a session on it at the first ACTFL meeting, and the entire Georgetown Roundtable was devoted to it last year.

It appears that a debate is shaping up and sides are being taken as to the usefulness of CLA. My feeling is that taking an either-or position is unproductive and that we should instead examine and understand both the potentials and the limitations of the pedagogical use of CLA from the point of view of our own profession, rather than that of the linguist or psychologist.

It is high time that we do our own thing.

In considering contrastive linguistic analysis as a topic for discussion, several questions can be raised.

First, of course, we can ask: What is CLA?
Then the next logical question is: How can we develop it?
Thirdly: What can we do with it?

My objective today is to answer the first two questions briefly and then focus on the last inquiry by asking more specifically: WHY is CLA useful in Foreign Language Teaching? and WHERE and HOW can it be applied?

Contrastive Linguistic Analysis is a process by which two languages are compared in order to identify differences between their linguistic systems.

In developing a contrastive analysis, at least six major points need to be considered:

The rationale or purpose for which CLA is undertaken;
The scope and depth of coverage;
The language theory upon which the comparison is based;
The framework within which the comparison is made;
The procedures used in making the comparison; and
The format and style of the formulation of the contrastive statement.

The development of contrastive linguistic analysis, of course, falls within the domain of responsibility of the linguist. But the information implied by the six points above is still of much interest to the foreign language teaching profession, as we are the primary users of this information. If there is no mutual understanding of the needs of the language teaching profession on the one hand -- and the rationale and methodology by which the analysis was developed by the linguist on the other -- the analysis cannot be put to optimum use. For this reason I believe that parameters of a contrastive linguistic analysis -- prepared for pedagogical purposes -- should be jointly formulated by the language teaching professional and the linguist.

In order to move into our main topic, let us assume that a contrastive analysis was developed for pedagogical use which effectively communicates the requested information to the language teaching professional. The questions to be answered are: Why is it needed? and Where and how can it be made best use of?

Learning a foreign language means the acquisition of a communication behavior different from one's native language and cultural behavior. What has to be learned are those aspects in which the native and target systems differ. Different audition and decoding structures and processes have to be learned and have to come under the control of different referential and cultural systems. In addition, one has to learn to operate intensively in new referential and cultural systems and to encode and phonate differently. Finally, the learner has to acquire a different set of reading and writing skills.

The learner of a foreign language, of course, already has at his command his native language. It is thus the native language to which the foreign language is compared and contrasted in order to establish similarities and differences. The identification of common elements, or linguistically and culturally functional similarities, between the native and the target systems produces data which the curriculum worker can use as potential points of departure toward conquering the differences. Differences can be described and inventoried as a result of contrastive analyses of the linguistic, cultural, semantic, referential, situational, writing, etc. systems. This description of differences, or inventory of differences, best demonstrates the pedagogical use of contrastive analyses, as it identifies the actual set of learning tasks for the learner of a specific language. The notion of actual learning tasks is quite important, and it needs to be explored more.

Having stated a set of instructional objectives, the designer of a learning program will ask: What does a student have to learn in order to
be able to perform in the way described in the objectives? In foreign language instruction, this examination will lead to a specification of a large number of language and cultural features which can be listed in an inventory. It is at this point where findings of CIA come into play. Based on the contrastive data, we can identify those items in the inventory which are identical with or similar to the native language and cultural features of the learner. These items do not have to be learned by the student, and the sum of these comprises the (relevant) input competence of the learner. Thus, the learning tasks originally inventoried minus relevant input competence (tasks already mastered) provide us with sets of actual learning tasks.

Diagram No. 1

**COMPUTING ACTUAL LEARNING TASKS**

<table>
<thead>
<tr>
<th>Inventory of Tasks</th>
<th>Input Competence</th>
<th>Actual Learning Tasks</th>
</tr>
</thead>
</table>

Contrastive linguistic analysis will reveal to us conflicting points between the two languages as it predicts learning hurdles, and tells us about potential problems. It communicates to us that attention has to be paid to points identified. It also tells us something about the nature of the conflict; for example, the contrastive analysis of Spanish and English plural will reveal that (1) the plural, as a referential meaning, exists in both languages; (2) the medium used to express this grammatical meaning is similar: a suffix in both languages; (3) even the item is similar to some extent, but (4) its variants, and (5) its distribution are different. This information identifies the task of learning.

But the designer of a language course needs more information than the identification of the task. He needs to have some basis to predict the size of the task, the degree of the learning problem, so that he can provide adequate attention to it and make available sufficient amount of materials by which the learner can overcome the problem.

The designer, thus, has to find a way to quantify the learning task. Quantification can be conceived as having such properties as quantification of difference and quantification of difficulty. Differential quantification indicates sameness, similarity or difference of the target item in its relationship to the native language item. This kind of quantification, thus, projects a learning task anywhere on a continuum of same → similar → different. Difficulty quantification refers to the continuum of no problem → easy → difficult. The information in Diagram No. 2 depicts these two continuums.
The nature of sameness and difference has been assessed by Lado as a function of differences or similarities in such aspects as meaning, form, medium, item, and distribution. For example, the grammatical meaning of singular, dual, and plural exists in Arabic, but only singular and plural in English. Even when a grammatical meaning is the same in the two languages in question, the form that signals the meaning may be different. For example, in one language, the form may be expressed as a function word; in another, as an inflection. Thus, we say that the media used in these languages are different. And if the medium used is the same, as for example, both languages used the suffix to express plurality, the item used may be different. Then there may be differences in the variations of the item, and also in the way the variants are distributed. From this discussion a scheme may emerge, such as the one depicted in the diagram next.

Diagram No. 3

**THE SCHEME OF SIMILAR—DIFFERENT**

<table>
<thead>
<tr>
<th>Differential Scale</th>
<th>Grammatical Meaning</th>
<th>Grammatical Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most Different</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Least Different</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Medium              |                     |                  |
| Item                |                     |                  |
| Variant             |                     |                  |
| Distribution        |                     |                  |
The scheme above presents a gradation of difficulty of contrasted language features.

It has been often said that whatever is similar is easy, and whatever is different is difficult. We are tempted to make such predictions based solely on the comparison of the two languages concerned. Examining a point of comparison, such as point "X", it may appear to us that the difference between the two languages at that point is greater than at point "Y". Thus we infer that the learning of foreign item "X" will be more difficult than item "Y". Then, as we observe performance in the classroom, we discover that the prediction we have made based on comparison only does not hold. Thus, the degree of difference is not necessarily a measure of the degree of difficulty. We may find that it is often more difficult to learn finer differentiations than it is to cope with major ones. It has been found, for example, that for a speaker of English learning Hungarian, the allophonic variant of an unaspirated stop in initial position is more troublesome to attain than to learn to produce the mid-front-rounded vowel which does not exist in English.

Emerging from the discussion above is a suggestion that the continuum of same --> similar --> different is not parallel with the continuum of no problem --> easy --> difficult. They rather form a matrix. (See Diagram No. 4)

Diagram No. 4

COMPARISON MATRIX

Different

A

Task No. 1 (A-a)

B

Similar

No Problem

Task No. 2 (B-b)

Easy

Difficult

Same

a

b

No Problem

Easy

Difficult
At a point of conflict, Task No. 1 emerges. At this point the native and foreign items may be very different, but still the task may be easy to overcome. In the case of Task No. 2, the items may be quite similar, but the mastery of the task may prove to be a very difficult hurdle for the learner.

The predictions which are available to us in the form of contrastive information indicate the existence of a potential hurdle. They inform us about the nature of the hurdle and may also help us to make a rough estimate of ease and difficulty. But the contrastive data do not provide us with a measure of the intensity of the problem, or with a quantification of the difficulty of the task.

This is a main limitation on the value of the contrastive data. A limitation, which, however, is much compensated for by the information load which the data delivers to a designer of a foreign language program.

Even this limitation can be overcome by a testing of the contrastive information in the actual learning situation by means of an empirical investigation.

The purpose of this empirical examination may be twofold. First, it may be used to validate the contrastive prediction. Even more importantly, however, it may furnish data for the quantification of the learning task in question. The quantification of learning tasks can be achieved by computing the time needed for the hurdling of the task from the point of introduction of the task to the point of its successful mastery. Saying this in another way, the persistence of the error over time possibly will be the best indicator of the intensity of the attention which needs to be devoted to a particular task. An analysis and measurement of the degree of effort required to overcome an error will quantify the learning task. The technique of this analysis and measurement is called error analysis. According to this technique, utterances of students learning the target language are analyzed over a period of time in order to look for the presence and persistence of errors. The longer an error persists, the more of a problem it will appear to be. The time needed to overcome a learning problem may be a source for the quantification of difficulty.

In conclusion, let me address myself to a few questions. Is CLA thus outdated? Would not error analysis in itself suffice as a process by which to collect relevant data for a pedagogical grammar?

The answers to both of these questions is NO. First, CLA furnishes us with base line information for error analysis. It will tell us what not to test for, and it will direct our attention toward points of potential problems, the size of which should be measured by error analysis. Second, CLA gives us information which error analysis cannot furnish, in that it qualifies the learning task; it tells us about its specific nature which, of course, error analysis cannot reveal.

The solution, then, is not either - or; but both. Both CLA and EA are required for the construction of foreign language instructional materials.
NOTES
