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## **SOME METHODOLOGICAL GUIDELINES FOR CONTRASTIVE ANALYSIS AND ERROR ANALYSIS**

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It is not the purpose of this article to raise the controversies that surround contrastive studies nor to discuss the error/mistake dichotomy in Error Analysis. My main aim in this article is to offer the research student some useful guidelines in the methods used and the steps to follow in conducting research in CA and EA.

### **HISTORICAL PERSPECTIVE**

The comparison of languages is not a new field. Prior to the birth of CA, it was confined to theoretical studies. The original theoretical aim of the comparison of grammar was "the construction of a universal grammar" as stated by C.W Leibniz in his *Dissertation on the Origin of Nations* (Perrot, 1963:102). In the 19th century, comparative studies were undertaken by European, especially German philologists and grammarians like Franz Bopp (*Conjugationssystem*), August von Schlegel (early typological studies), August Schleicher (Stammbaum Theory or Family Tree Theory) and Jan Baudouin de Courtenay (Theory of the "humanization" of phonology). Later, linguists of the Prague School

declared that the comparison of languages should not have as its only objective genealogical considerations but should allow for the possibility of establishing typologies of linguistic systems that are not genetically related.

The comparison of languages in the form of synchronic and applied studies became popular only around 1945 with the publication of C.C. Fries on the relationship between the comparison of languages and language teaching. Fries' *Teaching and Learning of English as a Foreign Language* (1945) and Robert Lado's *Linguistics Across Cultures* (1957) paved the way for the evolution of CA.

The modification of the objective of the comparison of languages from a theoretical to an applied one created a discipline which the linguistic community named Contrastive Analysis.

### Types of CA

There are basically three types of CA (Pietri, 1984:9):

- (i) those that are intended especially for teaching;
- (ii) those that use teaching as a pretext for their theoretical work;
- (iii) those that make use of pedagogical data to arrive at a theory

CA can be conducted at different levels of linguistic analysis. The levels that are of major importance for language teachers are "contrastive lexicon, contrastive syntax, contrastive semantics and contrastive pragmatics, the latter including text studies and some aspects of sociolinguistic and psycholinguistic perspective" (Jaszczolt, 1995:1).

CA is situated at the theoretical level when it is devoted solely to the comparison of the linguistic systems of two or more languages. It is situated at the applied level when it provides linguistic data for the preparation of instructional materials in second/foreign language teaching.

In fact, whether theoretical or applied, all types of contrastive studies (CS) are useful in the explanation of errors in an L2. According to Krzeszowski, the distinction between pedagogically oriented and pure CS is irrelevant: whether directional or adirectional, CS may yield results relevant to teaching or other fields of application (1989:69-70).

Pietri (1984:579) sees CA as a "carrefour" or crossroads of disciplines. Sometimes it supplies descriptive data and sometimes it incorporates other sciences in its approach. It is generally agreed that in applied CA, three main disciplines converge: linguistics, psychology and pedagogy. In linguistics, we compare languages in order to ascertain their similarities and their differences; in psychology, we compare

the monolinguals and the bilinguals in order to discover the conflicts inherent in first and second language acquisition and in pedagogy, we compare the elements acquired and the elements to be acquired in order to determine the problems of foreign language teaching (Pietri, 1984:379).

Although criticisms from linguists, psycholinguists and teachers on the role of linguistic influence on language learning almost relegated CA to a thing of the past in the 1970s, a marked revival of interest came about in the 1980s, not only in the applications of CA but also in its heuristic role in general linguistics. According to Katarzyna Jaszczolt (1995:1) CA "came back to the fore of methodological studies ... thanks to Chomsky's (1981) theory of Universal Grammar".

The evolution of CA has always followed the evolution of research in general linguistics. Theoretical CA is a useful tool in linguistics because it can be used to validate new theories.

In applied CA, one should also include the study of the psychological hypotheses on the learning of languages as well as the principles and methods of language teaching in order to make sure they are compatible with the aims of CA. Some contrastive analysts are of the opinion that CA is necessary for all types of language teaching methods. There are numerous language manuals in the market that are written for a particular target group. The adherence to the principle that a language manual should be prepared based on a CA of the Source Language (SL) and the Target Language (TL) was so strong at one time that some language specialists refused to write so-called "universal" manuals, that is, courses meant for students from different countries and communities, irrespective of their mother-tongue.

### CA/EA Analysis

As a result of the failure of CA to explain all the errors committed by learners, Error Analysis (EA) was proposed as an alternative or as a supplement to CA. The attacks on CA were in reality, a defence of EA (Pietri, 1984). With the publication of Pit Corder's article, "The Significance of Learners' Errors" in 1967, EA emerged as a theory as well as a method of language teaching and learning. Some contrastivists see the two procedures as complementary and according to them, the ideal approach is to combine the two possibilities. CA *a priori*, that is, the strong version (Wardhaugh, 1972) enables us to foresee the difficulties the students may encounter. It is a "preventive" measure. CA *a posteriori*, that is, the weak version, is none other than EA (Gaston Canu (1984), Etienne Pietri (1984), Schumann and Stenson (1975)). EA ena-

bles us to classify and explain errors and to take steps to correct them. It is a "curative" measure. "Prevention is better than cure" as the saying goes. Therefore, once an error has been understood, it is easier to prevent a recurrence of the error. Once the teacher is aware of the problem and knows the cause of the problem, he/she must learn to deal with it, to "cure" it and better still, to "prevent" it from happening, if possible, with appropriate classroom techniques.

### Steps in CA

In the classic or Friesian approach, two main steps are taken. The first step involves the description of the two languages, that is, the SL and the TL. In doing this, the researcher has to find out whether the languages have already been described. If descriptions of the languages exist, and are found to be adequate and useful for his purpose, the researcher can make use of them in his study. If the descriptions are unsatisfactory or incomplete, he must conduct further research in the area and improve upon the existing descriptions. If descriptions do not exist (as in the case of newly discovered or lesser known languages), the researcher has no choice but to describe the languages himself. In this case, a good background in descriptive linguistics will come in handy.

At the descriptive stage, the problem is in deciding which variety of the language to use, the dialectal or the standard variety? Although most CS are based on the standard language (and the TL is usually the standard variety), one must bear in mind that the learners themselves may not be using the standard form but one of the many dialects that may exist in the country.

Another important thing to remember is that the same descriptive model must be used for both languages. The choice of a model of analysis is generally left to the analyst as he/she may have his/her own theoretical and methodological preferences.

The second step is comparison or juxtaposition of the two systems or subsystems. The problem with juxtaposition is that what is discovered at a certain level in L1 may not exist in L2. This is the reason why M.A.K. Halliday (1965) proposed an extra step to the procedure, that of the establishment of comparability. It is recommended that before a comparison can be made, the analyst must make sure that the structures and elements of the two systems are comparable.

After the comparison, we come to the final stage which is prediction. From the results of the analysis, we will be able to construct a

hierarchy of difficulties, starting from the most difficult problem to the least problematic. These are features of the foreign language that are the most likely

tion of this hierarchy is based on the practical assumption that there are problems that are harder to overcome and there are problems that are relatively easier to tackle. From the predictions, the teacher as well as the manual writer would be able to describe the TL in a way that would anticipate and forestall at least some of the errors, if not all. This is the preventive use of CA.

### Methods in CA

Etienne Pietri mentioned three main types of analysis in an article on methodological problems of CA (1986). These are:

- (i) the classic analysis;
- (ii) the generativist analysis and
- (iii) the pragmatic analysis.

The classic method is the approach set forth by C.C. Fries which consists of three stages: description, comparison and pedagogical predictions. The second method owes its existence to Chomsky's Theory of Universal Grammar. Linguistic differences found at the level of surface structures correspond to similar deep structures. Although generative grammar provided linguists with a powerful technique of analysis, it was accused of imposing the rules of English grammar on other languages. The third method is based on the need to find equivalences between the two languages, by having recourse to translation. CA's contribution to language learning is that it is able to provide the learner the means of speaking another language besides his mother-tongue, that is, by supplying a situational equivalence in communication.

Below is a list of contrastive methods used in CA. The technique of comparability is applied in the works of L. Spalatin, V. Ivir, Z. Bujas, J.C. Catford and M.A.K. Halliday

#### 1. Juxtaposition

In this method, we juxtapose the different hierarchical levels of the language systems. This is the classic approach undertaken by contrastivists since C.C. Fries and later Robert Lado who recommended a systematic comparison of the language and culture to be learned with the native language and culture of the student (Lado, 1957:vii).

However, the impossibility of comparing entire systems was brought to light by Halliday who pointed out that since "languages are systems of systems" according to the Saussurean formula, there is logically a restriction in the possibility of comparing systems that are structurally different. Thus the analyst should select only those structures or features that are comparable (Halliday, 1965).

It should be noted, however, that the Friesian approach is still widely practised but the scope of research is generally limited. One must remember that the initial aim of contrasting languages is to look for differences, and generally, the features of the TL that do not exist in the SL pose the most problems, be they phonological, grammatical or semantic. For example, speakers of an L1 in which time is indicated by aspectual verbs and adverbs of time will find difficulty learning an L2 in which tense is indicated by inflection in the verbs. The verbal systems of the two languages are obviously not "comparable" in the sense that they are not similar, but that does not mean that the two systems cannot be "compared" or rather "contrasted" by choosing an appropriate method. My advice to students is that they should not be put off by the notion of comparability (cf. C.C. Fries (1945); Robert Lado (1957); Ferguson (1992)).

## **2. Transfer Comparison ("Superposition" in French)**

This method is used to compare the grammars of the two languages. One starts from the description of one language and then describes the second language in terms of the categories set up for the first. One can thus see L2 in terms of the grammatical rules of L1. (cf. M.A.K. Halliday 1965:120).

## **3. Systematic Translation**

The principle behind systematic translation is that all that can be said in one language can be said in another language. It is the way the facts are presented, not the facts themselves. (cf. H.W. Kirwood (1966); J.C. Catford (1965)).

## **4. Double Translation ("Contre traduction" in French)**

In double translation, we start from the objective, that is, the L2 and return to the objective. An L2 text is translated into the L1 which is then translated back into the L2. In the process we make interesting

discoveries especially on the problems of translation. (cf. V. Ivir (1976); L. Spalatin (1967)).

### 5. *Concordancing*

In this method, the computer is used to systematize double translation. Lists of "concordances" of the two languages are juxtaposed. The advantages of this method is that one can first determine the frequent constructions or units in a language and then examine their correspondences in the other language. Results can be quantified, that is, validated by the frequency of the units unlike earlier techniques which relied mostly on the intuition and knowledge of the analyst and/or his informant. This method enables one to see how close the languages are and discover the interferences. (cf. Z. Bujas (1967); P.L. Garvin (1972)).

### 6. *Language Contact and Foreign Language Learning*

Language contact can be studied in psycholinguistics, for example, in first and second language acquisition.

have to go to the individual to know what is happening. In this method, theories on language learning can be examined, for example, whether the learning of L1 = learning of L2. The supporters of this hypothesis are Corder, Sampson and Richards, and their opponents are Rivers, Politzer, Mackey and Lec, to name a few (cf. Rivers (1964); Dulay and Burt (1972); Ravem (1968, 1970); Dato (1970); Newmark and Reibel (1968)).

### 7. *The Study of Performance or "Parole" (Error Analysis)*

This method involves the classification and the interpretation of errors. It also enables us to predict errors in language learning. An Error Analysis presupposes a Contrastive Analysis. In EA, errors are due to a lack of linguistic competence and carelessness. What we are studying is a mixture of the performance and pedagogical problems that arise. We are in fact testing the individual as well as the teacher himself. The situation (context) will enable us to understand the source of the error. (cf. J.C. Richards (ed.) (1974); P. Corder, (1967, 1973, 1981); G. Nickel (1988); J. Norrish, (1983); L. Selinker (1974)).

### Steps in EA

Stevens (1969) describes two objectives of EA.

- (i) as a technique of applied linguistics meant for research and the improvement of materials, and
- (ii) as a tool of theoretical linguistics to be considered as an important source of information concerning the learning of languages.

In CA, we can only foresee a range of possible errors and we can expect the students to commit some of them but not all of them. With the use of EA, we have evidence of the students' production (performance). The errors observed can be classified and explained after which remedial exercises and drills can be prepared to eliminate these errors. This is the curative stage.

### Classification of Errors

EA can be conducted with the help of an error classification grid. The errors have to be classified before they can be analysed. In the error grid, we can include classifiable errors and unclassifiable errors. There are two sub-categories of errors that defy classification. These are:

- (i) utterances that are grammatically correct but wrong from the semantic point of view, and
- (ii) utterances that are grammatically incorrect as well as wrong from the semantic point of view

In EA, we are concerned only with errors that can be classified. Many of the errors committed can be classified based on a CA between the L1 and the L2, with the exception of those caused by non-linguistic factors like psychological conditions, socio-cultural problems, etc. The grid should be as complete as possible and easy to use. This is important because the teachers and examiners who use it might not all be linguists.

The theoretical problem with EA is that in most cases, we are examining the production of students who are not present and we might not understand what some of them wish to say. A solution to this problem would be to interview the students but this is not always possible. Another problem is that a particular form is said to be "wrong" when compared with what is considered the "norm". The "norm" is



what is usually given in a particular context. Therefore, in the classification of errors, we should bear in mind the linguistic context in which the "error" is committed.

Generally, we classify errors that are not ambiguous. If we do not know what is meant by the learner, we can set the answer aside as unclassifiable. The principles to be followed in the evaluation are:

- (i) only unambiguous utterances need to be studied,
- (ii) classifiable errors can be divided into two sub-categories:
  - (a) absolute errors and
  - (b) relative errors.

Absolute errors are forms that do not exist in the language. This type of error is also known as barbarisms. Barbarisms are deviations in speech, grammar or vocabulary from the standard forms.

Relative errors are forms that exist in the language but not in the context in question. Errors can also be written or oral.

Below is an example of a general error classification grid that takes into account errors committed at different linguistic levels. A more complete grid with sub-categories can be drawn up by the analyst based on the elements that exist in the language he is studying and the sub-systems he has chosen to work on.

#### General Error Classification Grid

0.0	Unclassifiable error
1.1	Lexical error/absolute/written
1.2	Lexical error/absolute/oral
1.3	Lexical error/relative/form
1.4	Lexical error/relative/meaning
2.1	Grammatical error/morphology/absolute/written
2.2	Grammatical error/morphology/absolute/oral
2.3	Grammatical error/morphology/relative/written
2.4	Grammatical error/morphology/relative/oral
2.5	Grammatical error/structure/proposition/absolute
2.6	Grammatical error/structure/proposition/relative
2.7	Grammatical error/structure/agreement
2.8	Grammatical error/structure/coordination
2.9	Grammatical error/structure/subordination
3.0	Error in style/registers, anacoluthons, etc.

(The above grid is a modified version of the *Grille de classement typologique des fautes* published by the *Bureau pour l'enseignement de la Langue et de la Civilisation Françaises à l'étranger* (BELC) in Paris.

### The Subjects

The subjects of the EA are the learners of the TL. Besides observing their classroom performance (oral or written), the researcher can also administer tests specifically on the learners' interlanguage. Factors that have to be taken into consideration when choosing subjects are:

- (i) age
- (ii) linguistic homogeneity and
- (iii) a level of proficiency that is more or less equivalent.

The age difference should not be too great as age plays an important role in language learning. The subjects should have the same mother-tongue and a similar level of competence in the TL.

### Interpretation of Errors

After the errors have been classified, they have to be analysed. In the analysis, the different sources of errors must be taken into account. Many analysts have given lists of categories of errors in their works and the research student can refer to them although he must remember that not all the categories mentioned can be applied in his analysis. Selinker (1972), for example, gives prominence to five categories of errors:

- (i) negative transfer of the mother-tongue
- (ii) influence of teaching procedures
- (iii) learning strategies of the learners
- (iv) the need of the learner to communicate in the second language at a degree that is beyond his competence, and
- (v) generalization

The second category, that is, "influence of teaching procedures" may be difficult to verify. Other works include, Dušková (1969); Richards (1970, 1972); Richards and Sampson (1974); Dulay and Burt (1974); George (1972); Jain (1974), etc.

### Hierarchy of Difficulties

Having completed the analysis, the researcher can then evaluate the results which will enable him to construct a hierarchy of difficulties based on the frequency of errors committed. The more frequent the error, the more difficult it will be for the student to overcome. Having done this, he can finally compare the two sets of hierarchies, one from the CA and the other from the EA. If the results tally, that is, if the same typologies of errors appear in the two lists, it can be said that the CA hypothesis has been proven to be correct. Unfortunately, the results of the EA are often different in some ways from those of the CA. Nevertheless, all findings of the CA/EA analysis, whether similar or dissimilar, should be explained.

### Pedagogical Implications

The findings of the CA/EA analysis can be used in the preparation of teaching materials, which brings us to the aim of CA, which is the teaching of the TL. In the preparation of instructional materials, however, some exterior parameters should be respected. These are:

- (i) the syllabus
- (ii) the time-table
- (iii) the materials (that is, the most essential to be introduced first)
- (iv) the examinations (which should be based on the syllabus) and
- (v) the manuals to be used. (Ideally, the content of the manuals should be based on a CA between the SL and the TL).

### Success Analysis

Since 1986, there has been a new development in CA, in Europe, particularly in Paris. A new theory and method of analysis called Success Analysis (Analyse de Succès) has been forwarded by contrastive theoretician Etienne Pietri from the University of Paris III. Success Analysis (SA) is a reaction to EA and a champion of universal grammar. It sees CA as a fundamental instrument of research in universal grammar and should, therefore, focus more on the similarities between languages rather than on their differences. In other words, future SA would be closer to research in universals, sticking close to language realities and not falling into the trap of transposing the principles of a language onto another

SA can also satisfy the applied aims of CA by providing universals (in Pietri's words "positive materials") which facilitate learning. The principle of research behind SA is called commutation which is aimed at discovering universal procedures by contrasting formal items like words, morphological markers and syntactic structures in L1 with situationally equivalent items in L2, to discover the formal correspondences between the two paradigms as well as the multiple communicative effects of these variations.

### Steps in SA

The first step in SA is to determine the subject of research, which can be chosen from any level of analysis. The subject will in turn determine the type of analysis to be carried out, which is the next step. Existing linguistic methods can be made use of although it entails a problem of metalanguage. It is therefore preferable to delimit the scope of research. The techniques of analysis are applied conjointly to the two languages in order to establish equivalences.

In SA, the initial objective seems to be purely linguistic. Finally, the results are validated to see whether they can be applied to pedagogy (cf. E. Pietri (1986, 1991)).

### Conclusion

CA has always followed the development of linguistic theory. In spite of the shift in the last two decades from the description of grammatical structures to the study of language as a means of communication, there is still a lot of area to cover in microlinguistics, particularly in multilingual countries like Malaysia where the citizens are also keen on learning foreign languages. The frequent changes and increasing sophistication of models of analysis pose a great problem to research students and most of them find difficulty in understanding them let alone apply them in their dissertations. However, although it is important to employ a descriptive model, the research student must not lose sight of the pedagogical aim of CA, that is, foreign language teaching. He must remember that there is a difference between a linguistic description and a pedagogical one. A linguistic analysis has to be "scientific" and as exhaustive as possible. In the manuals, it is not possible to present all the details of the grammar of a language. He must also find out whether the theory is relevant in teaching. A Generative Model, for example, may not be appropriate in the practical realities of an FL classroom.

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## CONSIDERATIONS

### NEEDS WORDS

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## INTRODUCTION

Methodology is a term that is used to refer generally to methods employed in doing a particular kind of study, or to a discipline that has been developed to describe and analyze the research and the kind of research activity. The methods that can be applied in a particular discipline are determined by the nature of the discipline. In the case of language learning, the kind of research to be undertaken is an exploratory, preliminary, descriptive or explanatory. There is no one method that can be used to do all the work in this area. It is important to understand the nature of the research and the kind of research to be undertaken. In this area, I will discuss the nature of research and the research methodology. I will also discuss the nature of research and the research methodology. I will also discuss the nature of research and the research methodology.