



## An Overview of Contrastive Analysis Hypothesis

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**Abstract.** Contrastive analysis of hypothesis also called CA is the comparison of the linguistic system of two or more languages and it is based on the main difficulties in learning a new language that caused by interference from the first language. Teaching materials can make use of contrastive analysis and the difficulties between the two languages can predict by CA. This study is investigated that Theoretical foundations of CA. Contrastive analysis hypothesis is distinguished between two types: theoretical and applied CA and is investigated traditional versus Modern CA. CA offered some strong claims in the area of language teaching which are characterized as the contrastive analysis hypothesis that is discussed by this article, and strong versus weak and moderate are investigated too. CA cannot be overlooked in syllabus design and it is a valuable source of information for the purposes of translation and interpretation.

**Keywords:** contrastive analysis hypothesis; applied Contrastive analysis; modern CA; Strong version; weak version.

### 1. INTRODUCTION AND REVIEW OF THE LITERATURE

Contrastive analysis hypothesis is an area of comparative linguistics which is concerned with the comparison of two or more languages to determine the differences or similarities between them, either for theoretical purposes or purposes external to the analysis itself. It implies a belief in language universals, if there were no features in common, there would be no basis for comparison. Broadly defined, CA has been used as a tool in comparative historical linguistics to establish language genealogy, in typological linguistics to create language taxonomies, in translation theory to investigate problems of equivalence to create bilingual dictionaries.

After some pioneering studies with a primarily theoretical focus at the turn of the 20<sup>th</sup> century, mother contrastive linguistics got its impetus from attempts, in the 1940s and 1950s in the United States, at working out effective and economical foreign language teaching materials. The early proponents of contrastive analysis started from the general assumption that efficient language teaching materials could be produced by obtaining a scientific description of the language to be taught by means of its careful comparison with a similar description of the learner's first language.

Contrastive analysis underwent a period of rapid development and expansion in the 1960s, particularly in the United States where the first systematic and extensive formulation of the CAH was proposed by Lado (1957) in linguistics across cultures. This article is regarded as having launched the CA movement in language teaching. Lado (1957) believes that the degree of difference between the two languages also correlated with the degree of difficulty. Later on, however, the analysis attention was drawn to similarities between languages, because language teaching was extended to benefit from such information. Using structuralist linguistic methods, Lado set out procedures for the comparison of phonology, grammar and vocabulary, and discussed ways in which such analyses might be relevant to syllabus and materials design, methodology and testing. He also embarked upon a simplistic contrastive analysis of cultures. His methods were most successful in the area of pronunciation, rather less successful in the

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description of grammar and lexis, and least successful of all in analysis of culture and the same period saw parallel work using CA in lexicology and in translation. Another active area in 1960s was the empirical study of language universals using CA to categorize languages by structural similarities and differences.

In American contrastive analysis in the 1960s, a series of extensive contrastive linguistics analyses were undertaken between English and a number of other languages, and in Europe several contrastive projects were launched somewhat later. In many cases the interest faded away quite soon, because the applied objectives were never properly reached. In the United States the result of some analysis were never published, and what was left behind was a skepticism among a large body of linguists toward CA that has lasted up to the present day. The skepticism concerning the usefulness of contrastive studies derives mainly from the failure of the structurally oriented contrastive studies to cope with problems encountered in foreign language teaching, but it was else so partly due to the fact that contrastive orientation had been linked with behaviorism, mainly as regards the rule of transfer in language learning and language use. When the idea of transfer was given up, the idea of the influence of the mother tongue on second languages could not be accepted either. In the US, one more reason for the downfall of CA in the 1960s was the rapid growth of generative linguistics each made linguists more interested in universals than in linguistics differences.

Throughout the 1970s and 1980s, however, contrastive analysis was extensively practiced in various European countries, particularly in Eastern European countries, and in the early 1990s, there were clear signs of a renewed interest. Since then, the rapid development of automatic data processing and information technology as opened up new prospects for contrastive approaches through the potential of large corpora.

## 2. THEORETICAL FOUNDATIONS OF CA

As a key theoretical foundation of CA, behaviorism dominated the linguistic field until the end of the 1960s. As a school physiology, behaviorism emerged from empiricism, the philosophical doctrine that all knowledge comes from experience. Behaviorism contributes to the notion that human behavior is the sum of its smallest parts and components, and therefore that language learning could be described as the acquisition of all of these discrete units. In other words, language learning process is the formation of thesis of language habits. Habit formation is an important concept in accounting for errors in the behaviorism view. A habit is formed when a particular stimulus becomes regularly linked with a particular response. The association of stimulus and response, negative or positive, will determine the occurrence of errors to a great extent. Structuralism shares the ground with the behaviorist by maintaining that, to learn is to change old habits and build new habits. If old habits get in the way of learning new habits, then errors occur. This process is referred to as interference. Therefore according to the behaviorist learning theory, errors occur as a result of interference of the mother tongue.

Interference is the subcategory of a more general process called transfer. Transfer is a general term describing the carryover of previous performance or knowledge to subsequent learning positive transfer occurs when the prior knowledge benefits the learning task, when a previous item is correctly applied to present subject matter. Negative transfer occurs when previous performance disrupts the performance of a second task. The latter can be referred to as interference, in that previously learned material interferes with subsequent material.

It has been common in second language teaching to stress the role of interference that is, the interfering effects of the native language on the target language. It is of course not surprising that this process has been singled out, for native language interference is surely the most immediately noticeable source of error among second language learners. The saliency of

interference has been so strong that CA has viewed second language learning as exclusively involving the overcoming of the effect of the native language. It is clear from learning theory that a person will use whatever previous experience he or she has had with language to facilitate the second language learning process. The native language is an obvious set of prior experiences. Sometimes the native language is negatively transferred, and we say then that interference has occurred.

It is very important to remember, however, that the native language of a second language learner is often positively transferred, in which case the learner benefits from the facilitating effects of the first language. Sometimes, mistakenly overlook the facilitating effects of the native language in our desire for analyzing errors in the second language and for overstressing the interfering effects of the first language. Nowadays, the widely used term interference is being increasingly replaced by the label cross-linguistic influence (CLI) in order to avoid associations with behaviorism. CLI is a cover term used to refer to situations where one language shows the influence of another.

### **3. THEORETICAL VERSUS APPLIED CA**

It is necessary to distinguish between two types of CA: theoretical and applied. Confusion between the aims of these two types of CA has often resulted in the evaluation of the results of theoretical research against applied objectives, or theoretical analysis has been performed for the purposes of, for instance, language teaching. The obvious result has been increased uncertainty about the usefulness of CA.

Theoretical contrastive studies produce extensive accounts of the differences and similarities between the languages contrasted. Attempts are also made at providing adequate models for cross-language comparison and at determining which elements in languages are comparable and how it should be done. The alignment of languages also adds to the information about the characteristics of individual languages or about linguistic analysis in general. No claims should, however, be made for the applicability of the results for purposes other than linguistic analysis. System-oriented contrastive linguistics of this kind can take place on the basis of any type of data that is relevant. It can also make use of quantitative materials, which may be highly valuable for making probabilistic statements about items appearing in similar contexts in the two languages.

On the other hand, the target of applied contrastive studies is the establishment of information that can be used for purposes outside the language domain proper, such as language teaching, translation, interpreting and bilingual education. Traditionally, this kind of contrastive analysis has been mainly concerned with the identification of potential trouble in the use of the language learner's target language.

The main concern of early applied contrastive analysis was a reliable prediction of the learner's difficulties. Wardhaugh (1970) believes that is the strong hypothesis of contrastive analysis and it soon proved to be rather difficult to attest to the validity of such a hypothesis in terms of learning problems, mainly because similarities and differences between the languages were not the only, or even the most important, cause of problems for the learner. The alternative approach that came to be offered instead was error analysis. In error analysis, contrastive analysis was assigned an explanatory role, which was to be called the weak hypothesis of contrastive analysis.

#### 4. TRADITIONAL VERSUS MODERN CA

Traditional contrastive analysis mainly focuses on code linguistics. Since it is virtually impossible to contrast every possible fact of two languages, CA proceeds from the descriptions of some selected features or phenomena in the two languages. These features can include a wide range of categories, rules or rule systems, realizations of semantic concepts, various language functions, or even pragmatic categories and rhetorical issues. However, traditional CA primarily tends to be confined within the boundaries of sentence. Next, those selected features are juxtaposed on the basis of translation equivalence as assessed by a bilingual informant. The following stage is to compare and contrast the two systems in order to discover the points of similarity and difference. After mapping of one system to the other, some statements can be made regarding possible occurrence of deviant structures in learners' interlanguage and a supposed hierarchy of difficulty is established. This is the prediction stage. Sometimes a verification stage can follow, where the contrastive test their prediction of errors on a number of learners.

The first objection to the traditional view of CA is directed at the concept of equivalence. It is possible to argue that there are no grounds for considering two texts in two languages as fully equivalent under any circumstances. All communication is culturally relative, and texts are the same because they are communicative events. This makes them relative also in another sense. It could, for instance, be hypothesized that two highly specialized technical or medical documents are closer to each other than, for instance, a fictional text and its translation in to another language. Even more problematic than this is the question of equivalence in spoken discourse.

Since many studies had resulted in the conclusion that the mapping of the language codes have proved to be insufficient for applied purposes, recent contrastive studies was adopted a dynamic approach where various psychological, sociological, and contextual factors alongside the purely linguistic ones are taken into account. So, in modern contrastive linguistics, the theory and methodology adopted from linguistics has been supplemented with those derived from sociology, psychology, social psychology, neurology, cultural studies, ethnography, anthropology and related disciplines for the analysis of pragmatic patterning, cognitive mechanisms and information processing systems involved.

The other differences between the traditional and modern CA is that in traditional contrastive studies the learner had been almost totally forgotten in much of what had been written about the success or mostly failure of contrastive analysis from an applied viewpoint. Today, it is quite evident that a straightforward setting alongside of two linguistic system-even irrespective of the level of analysis is too simplistic and cannot easily produce information relevant for language teaching purposes. There is simply too much variation in learner performance for it to be accounted for by reference to linguistic phenomena alone. So, modern approaches to CA are more participant-oriented where the intentions of the language users and the process of communication as a whole are taken into consideration. Language use is based on internalized categories of rules and structures and on various processes, and therefore speakers observe phenomena that they have learned, or choose, to observe. A student may hear, and thus also produce, a certain language feature differently from what is expected by the teacher because the student's perception is not governed by the patterning adopted for teaching from a theoretical or pedagogical perspective. It is impossible to understand learners' problems unless it is known how they feel, what they attempt to hear, what they actually hear, what the structures are that they perceive, and how these differ from the perceptions of native speakers in similar situations. This implies that true contrasts, at least from the learning point of view, lie inside each individual learner.

Another distinguishing feature of modern contrastive linguistics is that, it is no longer necessary for the contrastive linguist to invent the examples in the way it used to be done. It is now possible to resort to corpora, where the relevant instances can be found by means of automatic searches. The development of powerful computer tools makes it possible to carry out contrastive studies of language features in context through the use of large computerized corpora. In this way, new insights can be expected into contrastive discourse analysis, contrastive rhetoric and contrastive pragmatics. Many areas of syntax, semantics and lexis may also benefit from the availability of large parallel corpora. At the same time it may be possible to develop new theoretical approaches to contrastive analysis.

## 5. STRONG CLAIMS OF CAH

CA offered some strong claims in the area of language teaching which are characterized as the contrastive analysis hypothesis. Deeply rooted in the behavioristic and structuralist approaches of the day, the CAH claimed that the principle barrier to second language acquisition is the interference of the first language system with the second language system, and that a scientific, structural analysis of the two languages in question would yield a taxonomy of linguistic contrasts between them which in turn would enable linguists and language teachers to predict the difficulties a learner would encounter. This can be summarized like this:

Difference b/w L1 & L2 item → interference of L1 into L2 → difficulty in learning L2

It was at that time considered feasible that the tools of structural linguistics, such as Frie's slot-filler grammar, would enable a linguist to accurately describe the two languages in question, and to match those two languages in question, and to match those two descriptions against each other to determine valid contrasts, or differences, between them. As mentioned above, behaviorism contributed to the notion that human behavior is the sum of its smallest parts and components, and therefore that language learning could be described as the acquisition of all of those discrete units. Moreover, human learning theories highlighted interfering elements of learning, concluding that where no interference could be predicted, no difficulty would be experienced since one could transfer positivity all other items in a language. The logical conclusion from these various psychological and linguistic assumptions was that second language learning basically involved the overcoming of the differences between the two linguistic systems, the native and the target languages.

According to Lado (1995), one of the strongest claims of CAH is that a systematic comparison of the language and the culture to be learned with the native language and culture of the student it was possible to predict and describe the patterns that would cause difficulty in learning, and those that would not, and also claimed that the key to ease or difficulty in foreign language learning lie in the comparison between native and foreign language. So, those elements that were similar to the learner's native language would be simple for him and those elements that were different would be difficult.

Such strong claims of CAH resulted in what some researchers claimed to be an empirical method of prediction. A well-known model was offered by Stockwell, Bowen, and martin (1965), who posited what they called a hierarchy of difficulty by which a teacher or linguist called make a prediction of the relative difficulty of a given aspect of the target language. For phonological systems in contrast, Stockwell and his associates suggested eight possible degrees of difficulty. These degrees were based upon the notions of transfer (positive, negative, and zero) and of optional and obligatory choices of certain phonemes in the two language in contrast. Through a very careful, systematic analysis of the properties of the two languages in reference to the hierarchy of difficulty, it was claimed that applied linguists were able to drive a

reasonably accurate inventory of phonological difficulties that a second language learner would encounter.

## 6. STRONG VERSUS WEAK AND MODERATE

According to Wardhaugh (1970), the difficulty by means of contrastive analysis was the strong version. A version was quite unrealistic and impracticable. Wardhaugh (1970) believes that “at the very least, this version demands of linguists that they have available a set of linguistic universals formulated within a comprehensive linguistic theory which deals adequately with syntax, semantics, and phonology.” He went on to point out the difficulty of an adequate procedure, built on second theory, for actually contrasting the forms of languages: “Do linguists have available to them an overall contrastive system within which they can relate the two languages in terms of mergers, splits, zeroes, over-differentiations, under-differentiations, reinterpretations?” Therefore, while many linguists claimed to be using a scientific, empirical, and theoretically justified tool in contrastive analysis, in actually they were operating more out of mentalistic subjectivity.

Wardhaugh (1970) believes that contrastive analysis had intuitive appeal, and that teachers and linguists had successfully used “the best linguistic knowledge available in order to account for observed difficulties in second language learning”. The weak version does not imply the a priori prediction of certain degrees of difficulty; on the contrary, it adopts an a posteriori after the fact approach. The weak version of CAH contains that in the learning of L2, the native language of the learner does not really ‘interfere’ with his learning so much as it provides an ‘escape hatch’ when the learner gets into a tight spot. In other words, it holds that when the learner doesn’t know how to say something in the target language, he ‘pads’ from his native language. This viewpoint suggests that what will be most difficult for the learner is what he does not already know. As learners are learning the language and errors appear, teachers can utilize their knowledge of the target and native languages to understand sources of error. The weak version of CA can be summarized like this:

Limited knowledge of L2→Recourse to L1→difficulty in learning L2

The weak version of CAH is what remains today under the label cross-linguistic influence (CLI), suggesting to recognize the significant role that prior experience plays in any learning act, and that the influence of the native language as prior experience must not be overlooked. The difference between today’s emphasis on influence, rather than prediction, is an important one. Aside from phonology, which remains the most reliable linguistic category for predicting learner performance, other aspects of language present more of a gamble. Syntactic, lexical, and semantic interference show far more variation among learners than psychomotor based pronunciation interference.

According to Ziahosseini (2006), there is a model of moderate version or subtle differences version of the CAH. According to this model, L2 items which are different from L1, rather than causing difficulty, are more likely to be noticed and categorized. From this perspective, it is the similar items which can pose a problem. This notion was based on the principle of stimulus generalization which states that the more similar two stimuli are, the more likely a person is to respond to them as if they were the same stimulus. Therefore, when the learner is faced with such a condition, he may generalize a response learned to one stimulus. This, was claimed, would create confusion on the side of the learner.

The moderate version of CA was proposed on the basis of the study of spelling errors. Ziahosseini (2006) believes that for learners of English as a second language, English spelling proved to be more difficult for people whose native language used a Roman script (for example.

French, Spanish) than for those whose native language used a non-Roman script (Arabic, Japanese). The strong form of the CAH would have predicted that the learning of an entirely new writing system.

The strong form of CAH was too strong, but the weak form was also perhaps too weak. CLI research a caution middle ground. Specialized research on CLI in the form of contrastive lexicology, syntax, semantics, and pragmatics continues to provide insights into second language acquisition (SLA). CLI implies much more than simply the effect of one's first language on second; the second language also influences the first. The implications of research on CLI suggest that teachers must certainly be careful not to prejudge learners errors based on their L1. At the same time, they must also understand that CLI is an important linguistic factor at play in the acquisition of a second language.

## 7. CONCLUSION

The contrastive analysis hypothesis (CAH) was widely influential in the 1950s and 1960s, but from the 1970s its influence dramatically declined. This was due to both theoretical and practical flaws in the CAH as well as new realities on the ground. Some of the reasons for the downfall of the CAH are mentioned below:

- While the association of CAH with behaviorism and structuralism gave it academic legitimacy, it ultimately led to its downfall. From the late 1950s Chomsky mounted a serious challenge against the behaviorist view of language acquisition and structuralist linguistics which contributed to the decline of the CA. There was also disenchantment with the over-confidence of the structuralists that insights from linguistics would lead automatically to improvements in language learning and teaching.
- CAH was at odds with the views of later developments in applied linguistics including error analysis, interlanguage theory and second language acquisition. The theory of interlanguage listed a number of sources of error of which first language interference was only one. Therefore, error analysis, the examination of attested learner errors, began to replace the error prediction of CA.
- A major flaw of the CAH was the dubious assumption that one could depend solely upon an analysis of linguistic product to yield meaningful insight into a psycholinguistic process, i.e. second language learning.
- The widespread acceptance of the morpheme acquisition studies claiming that foreign language errors derived more from a natural order of acquisition than from first language interference dealt a fatal blow to the CAH.
- The empirical method of prediction based on the hierarchy of difficulty was shown to have many shortcomings. Firstly, the process was oversimplified; subtle phonetic, phonological, and grammatical distinctions were not carefully accounted for. Second, it was very difficult, even with six categories, to determine exactly which category a particular contrast fit into.
- The accumulation of empirical studies of SLA indicated that the CAH made the wrong predictions. Firstly, it did not anticipate all the errors, i.e. it under-predicted some of the actual errors. Second, some errors it did predict failed to materialize, i.e. it over predicted the presumed errors.

Despite continued criticism, contrastive analysis still remains a useful tool in the search for potential sources of trouble in foreign language learning. CA cannot be overlooked in syllabus design and it is a valuable source of information for the purposes of translation and interpretation. Today, the scope of contrastive analysis has gradually widened, along with the

expansion of researchers' interests beyond the confines of the sentence for instance, to interlanguage pragmatics or contrastive rhetoric.

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