

CONTRASTIVE ANALYSIS IN A NEW DIMENSION

TOMASZ P. KRZESZOWSKI

University of Łódź

Traditional CA's are all conducted along the *horizontal* dimensions necessarily involved in comparing an element or a class of elements in L_1 with an equivalent element or a class of elements in L_2 and/or vice versa. The traditional luggage of CA must, therefore, contain a set of statements motivating the movement from a specific element in L_1 to a specific element in L_2 . These statements must be based on semantic considerations associated with the notion of *equivalence* (Halliday et al. 1964; Catford 1965; Krzeszowski 1967) and also on structural (syntactic and morphological) considerations associated with the notion of *congruence* (Krzeszowski 1967; Marton 1968). The linguistic nature of elements selected for comparison is strictly dependent upon a particular linguistic theory employed in the description of the compared languages. These elements can be systems (phonological, morphological, syntactic, etc.) or subsystems (plosives, personal pronouns, non-finite clauses, etc.) in L_1 and L_2 . A comparison of systems and subsystems is usually associated with the adoption of structural theories as foundations for CA. It is also possible to contrast various types of *constructions* in the compared languages, e.g. passive constructions, relative constructions, nominal constructions, etc. Such comparisons can be conducted within nearly all types of theoretical frameworks, including traditional approaches to grammar. Finally, it is also possible to conduct research into a comparison of specific *grammatical rules* in L_1 and L_2 . Within the theoretical framework of transformational generative grammar it is thus possible to compare such rules as subject raising, adjective placement, interrogative inversion and many others. A contrastive analysis, in this case, results in statements about the obligatory or optional status of the compared rules, their ordering and their presence or absence in the compared languages.

In all three types of comparison the notion of equivalence is the crucial

one. It provides the necessary criterion of comparability: only equivalent systems, constructions and rules are comparable. Since the notion of equivalence has received a thorough treatment in the literature, especially with respect to the equivalence of constructions (Krzeszowski 1967, 1971, 1974; Marton 1968) we need not concern ourselves with this problem here.

As was remarked at the outset of the present paper, all contrastive analyses based on the notion of equivalence are conducted along what may be called a horizontal dimension involving movement from L_1 to L_2 and vice versa. The comparative technique requires isolating a system or a construction or a rule in L_1 and matching it for comparative purposes with an equivalent system, construction or rule in L_2 . One can also start with L_2 and look for equivalent systems, constructions and rules in L_1 .¹

The horizontally organized contrastive analyses of systems and constructions across languages originated with Lado (1957) and continued to flourish in various theoretical frameworks. They resulted in inventories of differences and similarities between the compared items. Some attempts were also made to quantify these differences and similarities according to what was believed to reflect the amount of difficulty involved in learning these items in the process of second language acquisition. What resulted from such attempts were *hierarchies of difficulties* correlated in an intricate, though apparently motivated way with degrees of similarity (or difference) between the compared items. This correlation was based on the assumption that "differences are the chief source of difficulty in learning a second language." (Lado 1964:21). The phenomenon involved in these difficulties was called *interference*, i.e. "difficulty in learning a sound, word or construction in a second language as a result of differences with the habits of the native language" (Lado 1964: 217). Interference was thus believed to be in inverse proportion to the degree of similarity between the compared items. Consequently, attempts were made to relate "hierarchies of difficulties" to contrastive statements concerning degrees of difference across languages (Stockwell, Bowen and Martin 1965; Stockwell and Bowen 1965). Experiments soon invalidated a large portion of such predictions (Brière 1968; Politzer 1968) and called in question the relevance of CA in designing materials for foreign language instruction. The scepticism was reinforced by the realization that interference (or negative transfer) is not exclusively related to differences across languages and that the results of CA can be used only to a fairly limited extent in the prediction

¹ It must be noted that the notion of equivalence is not the same for each type of comparison. Equivalence of systems expresses a different relation than equivalence of constructions and sentences and equivalence of rules. In horizontally organized contrastive analyses each type of equivalence requires its own independent motivation and explanation. See, for example, an attempt to establish equivalence of phonemes in Milewski (1962) and some amendments suggested by Krzeszowski (1970: 52ff).

of errors. This situation led some investigators to the belief that error analysis was a more accurate source of information about difficulties in foreign language learning. Eventually, what was originally intended as "a method to test the contrastive prediction and extend its power of pedagogical applications" (Banathy and Madarasz 1969) became an autonomous field of study, more useful in syllabus planning and in designing materials for foreign language instruction than CA.

A thorough study of errors led to the formulation of the theory of so-called 'approximative systems', i.e. deviant linguistic systems "employed by foreign learners in an attempt to utilize the target language" (Nemser 1969).² According to Nemser, the process of foreign language acquisition can be seen as a succession of stages of proficiency, ultimately approaching native-like competence in the target language. In principle, each stage can be described independently, without reference to either the source or the target language.

Without going into details concerning the linguistic status of approximative systems, it is possible to say that each such system can be seen as an intermediate stage on the *horizontal* axis, delimited on one extreme by the source language and on the other extreme by the target language. Whether or not it is possible to claim that a synchronic description of such a system is at all possible is a question that need not be discussed here. All the same it is impossible to refrain from observing that an adequate theory of approximative systems would have to account for their fundamentally dynamic nature, manifested in the perpetual motion (very much resembling linguistic change in general) in the direction of the target language. The theory would have to explain the mechanism and the power underlying this motion.

In an influential paper of 1972 Selinker made an attempt to uncover and describe the nature of this mechanism by isolating a number of *processes* vital in accounting for the form of interlanguage (the term with which Selinker replaces Nemser's 'approximative system'). Thus Selinker distinguished 'language transfer', 'transfer of training', 'strategies of second language learning', 'strategies of second language communication' and 'overgeneralization of TL linguistic material' as factors shaping interlanguage.

Using Selinker's ideas as a starting point for his own interesting speculations, Widdowson (forthcoming) claimed that "all of the processes which Selinker refers to are tactical variations of the same underlying simplification strategy and [...] in general error analysis is a partial account of basic simplifying procedures which lie at the heart of communicative competence".

It appears that the notion of simplification is a crucial one. To that notion, therefore, I now propose to turn attention. According to Widdowson, simpli-

² The notion but not the term was first introduced by Corder (1967), who referred to it as 'transitional competence'.

fication is a result of an attempt to adjust the language behaviour to the interests of communicative effectiveness. Simplification may, therefore, affect any stage of interlanguage and it may involve "a movement away from the reference norm of the standard language (or even a particular interlanguage) so as to arrive at forms of speaking judged to be dialectally appropriate in certain contexts of use."

Simplification presupposes the existence of a non-simplified or more complex form of the language. 'Simplified' is a property of language which is by no means restricted to the foreign learner's interlanguages. It also characterizes such types as pidgins and creoles (Valdman 1975; de Camp 1968), 'baby-talk', 'lover's talk', and 'foreigner-talk' (Ferguson 1964) and various types of 'reduced registers' such as 'telegraphese', technical descriptions and the language of instructions (Corder: forthcoming). It is interesting to acknowledge some results of research into the structure of all these 'simplified' codes. It appears that all of them share some obvious structural similarities such as an extremely simple, if any, morphological system, a comparatively rigid word order, a reduced system of pronouns, a small number of grammatical function words, a reduced use of the copula, and the absence of articles (and to a smaller extent of deictic words). According to Valdman (forthcoming) pidgins "are derivationally shallower than other natural languages and reflect more closely cognitively-based deep structure". In view of the overt similarities between all types of 'simplified' codes, Valdman's contention can be extended to cover them all.

In the paper already referred to, Widdowson states that the learner's linguistic behaviour is controlled by a set of rules which need not correspond to the set of rules which he recognizes as constituting the correct norm and to which he can make reference when required. Widdowson calls these rules *expression rules* and *reference rules*, respectively. It is clear that in the former literature both the notion of error and the notion of interlanguage were connected with the concept of competence alone and were thus static in nature. There is no doubt, however, that interlanguage, in contrast with language, is a very unstable and constantly evolving system. The problems that must be stated and accounted for are the following why do interlanguages vary when they do? Under what conditions do they vary? Why is there a discrepancy between what the learner knows and what he does? Answers to these questions may be sought in Widdowson's distinction between expression rules and reference rules. Expression rules are the rules *in presentio* and are actually used to generate a certain linguistic behaviour meeting the communicational needs of the learner. Reference rules are the rules *in absentio*. They constitute the learner's knowledge of the foreign language, i.e. his linguistic competence. In the classroom there is always a correcting teacher, who in all manner of ways, implicitly or explicitly, directly or indirectly imposes ref-

erences rules upon his learners. But when the learner is left alone to face his communicative needs, he usually finds that his communicative needs exceed his linguistic potential. In economic terms his demands are much higher than the supply placed at his disposal. All the same he is usually able to communicate even if his linguistic competence does not seem to be up to the occasion. Therefore, in the majority of cases communication is achieved at the expense of linguistic orthodoxy.

Widdowson (forthcoming) says that communication in a foreign language involves an adjustment of the learner's language behaviour in the interests of communicative effectiveness. He calls this adjustment 'simplification of use', which "may involve a decrease or increase in complexity of usage."³ Errors result from the learner's attempts to use reference rules as expression rules. Since, as was said earlier, there is always a deficit of reference rules, learners have to simplify their expression rules in one of many possible ways in their efforts to communicate effectively. Simplification conceived in this way lies at the heart of Selinker's five processes establishing the learner's knowledge (interlanguage) as well as his language behaviour. Therefore, Widdowson is able to conclude optimistically that "a learner's errors are evidence of success not of failure" because "the failure to conform to given reference rules is the consequence of success in developing expression rules."

Corder (forthcoming) expresses an unorthodox view on the role of simplification in language learning. He suggests that it might be possible to regard 'standard' codes as 'elaborated' forms of 'basic' simple codes such as pidgins, creoles, interlanguages and all types of 'reduced' registers. This proposal assumes the existence of some universal process of elaboration or *complication* involved in all types of language learning. Though universal, the process would of course involve language specific 'complication rules'. The development of a pidgin into a creole would be a case of progressive complication. Another case would be the development of an interlanguage through increasingly complex 'approximative systems' into the target language. All types of 'reduced' registers used in appropriate situations would be viewed as instances of fossilized intermediate approximative systems or institutionalized, stereotyped stages in the process of complication toward the standard version of the language.

Selinker's interlanguage or Nemser's approximative systems, whether

³ Widdowson thus explains the apparent contradiction contained in this statement: "How can one talk of simplification which involves linguistic complexity? One can do so, I suggest, because effectiveness of use in a particular communicative situation might well require explicitness or a conformity to accepted convention which calls for linguistic elaboration" (Widdowson forthcoming). In other words one often uses linguistically more complicated forms in ignorance of the existing less complicated forms, as in using a definition of a word instead of the word itself, if the word is unknown.

'fossilized' or in the state of flux have been demonstrated to be relatively independent of 'transfer' from the mother tongue (Burt and Dulay 1974b). Moreover, recent studies in error analysis reveal that there exists a common body of errors pointing to some universal learning strategies (Richards 1974). Transfer phenomena seem to be relatively less numerous and significant than was believed before.

Does it all suggest a further regress of relevance of CA conducted for pedagogical purposes? If the prediction of negative transfer (interference) and other horizontal phenomena across languages is to be considered as the main object of CA, then in view of the recent revelations described above the answer is perhaps "yes". Horizontally organized CA's are certainly limited to predicting and explaining phenomena which seem to occupy but a small area in the linguistic behaviour of foreign language learners.⁴ Some very crucial and significant processes such as simplification (complication) and fossilization connected with errors escape systematic treatment in terms of horizontally organized CA's. It is likewise obvious that a large number of errors cannot be explained by the interlanguage theory any more than they can be explained by the transfer theory. Of Selinker's five types of processes responsible for the formation of interlanguage, only three are connected with transfer either from the target language (overgeneralization, analogy) or from the source language (interlinguistic interference). It is worth noting that 'transfer of training', if it results in errors, may be looked at as a special case of wrong generalizations from the target language, since drills and exercises providing the basis for 'transfer of training' are nothing else than didactic texts written in the target language. Ideally, therefore, through careful preparation and manipulation of didactic texts, overgeneralizations of this sort can be eliminated and this type of transfer disregarded since, unlike other types of transfer, it is relatively easy to control.

The remaining two types of processes responsible for the formation of interlanguage, i.e. 'strategy of second language learning' and 'strategies of communication' cannot be related to transfer phenomena.⁵ Of the five

⁴ See, for example, a study of Spanish-English bilingualism by Lance (1969:124), who arrives at the following conclusion: "One of the most important conclusions this writer draws from the research in this project is that interference from Spanish is not a major factor in the way bilinguals construct sentences and use the language".

⁵ It remains to be investigated to what extent the particular factors distinguished by Selinker influence each other. For example, it could be so that 'strategies of TL learning' are somehow determined or modified by 'strategies of communication' or by 'transfer from SL'. These mutual relations may depend on a specific situation in which interlanguage is used. In the classroom 'transfer of training from TL' and 'strategies of TL learning' may override other factors. In a live communicative situation, however, 'strategies of communication' probably dominate other factors. It would seem that the five

types of processes the last two are directly responsible for the phenomenon of simplification (complication) in the sense discussed above. The mutual relations between the source language, the target language, the interlanguage, and the processes which are involved in the formation of interlanguage can now be visualized in the form of the following diagram:

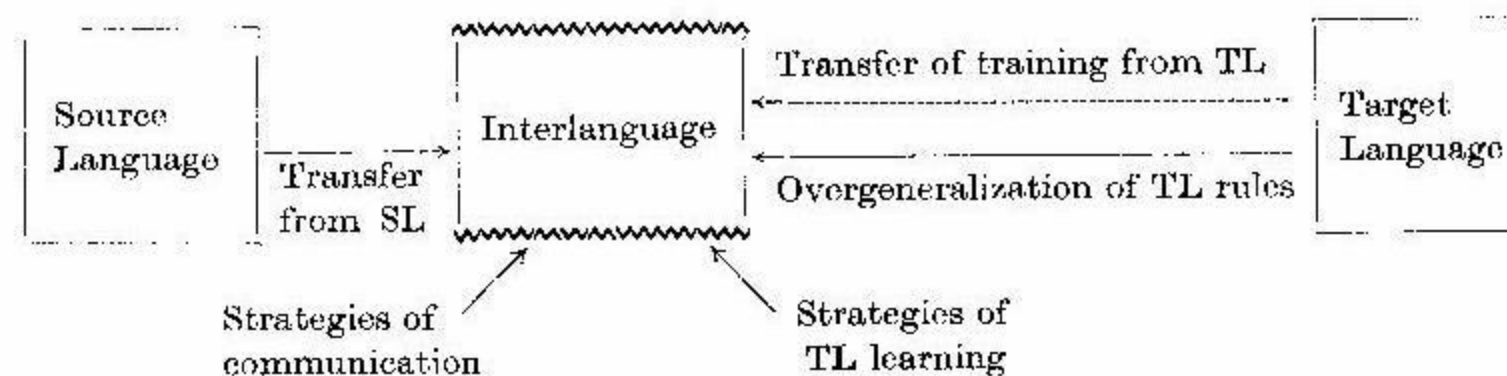


Fig. 1

The diagram shows that transfer from the source language, transfer of training from the target language and overgeneralization from the target language are horizontal processes which influence the form of interlanguage. The other two processes cannot be handled in terms of any horizontal description since they do not involve any transfer either from the source or from the target language. In the remainder of this paper I am going to suggest a way of describing the phenomenon of complication which is inseparably connected with strategies of second language learning and with strategies of communication within the framework of contrastive generative grammar (CGG) (Krzeszowski 1974).

As was observed earlier, following Corder's argumentation, the development of the learner's language into the target language involves some universal process of complication according to language specific complication rules. The process of complication does not take place along the horizontal dimension but rather along the 'vertical' dimension as the learner moves from some basic language through successive stages of complication toward the target language. This is certainly true of a baby acquiring his native tongue. I wish to hypothesize that the same 'vertical' dimension of movement is involved in the process of second language learning, even if this process is distorted by other processes including those that can be described horizontally.

The model of second language learning must include the two types of rules described by Widdowson, i.e. reference rules and expression rules. It must also account for the mutual traffic between these two types of rules.

factors distinguished by Selinker arrange themselves in a hierarchical order depending on a specific extra-linguistic situation in which interlanguage is used.

The model must also account for formal similarities between learners' interlanguages regardless of their native language as well as for the fact that this resemblance tends to be stronger in the case of the most 'basic' forms of interlanguage (cf. Dulay and Burt 1974a).

All these phenomena can be treated only in terms of a theory in which a common conceptual base underlies all forms of more elaborated realizations of the language, with an increasing amount of interlinguistic differences at less 'basic' levels of realizations in various languages. A foreign language learner, in his attempt to compensate for the deficit in reference rules available to him in the target language, can always resort to the process of *lexicalization* of forms which are less elaborate by being closer to the 'basic' forms. The resulting sentences are deviant. They do not, however, necessarily show symptoms of transfer from the source language, but rather they reflect certain universal properties of underlying representations, simpler in form than the fully elaborated constructions of the target language.

The organization of contrastive grammar suggested by the present author in a number of papers seems to be well fitted for providing a fairly explicit account of the process of complication associated with second language learning. The 'vertically' organized contrastive grammar is founded upon a universal semantic or conceptual input consisting of configurations of elementary, primitive notions such as Agent, Patient and all sorts of specifications of location in time and space. Such universally structured configurations are assumed to underlie equivalent constructions and sentences across languages. Language specific categorial rules assign major grammatical categories such as 'sentence', noun', 'verb', 'adjective' to particular portions of input configurations. The resulting categorized structures are mapped by syntactic transformations onto subsurface representations into which lexical items are inserted by means of rules called lexicalizations. The resulting structures serve as inputs to rules called 'cosmetic' transformations. Syntactic transformations account for surface structures of sentence, i.e. for hierarchical arrangements of morphemes, constituents of phrases and of phrases, constituents of sentences and of sentences, constituents of sequences.⁶ Briefly speaking, syntactic transformations determine the syntactical structure of sentences and their sequences. In addition, they also effect minor lexicalizations by inserting function words into derived constructions. 'Cosmetic' or post-lexical transformations account for linear arrangements of morphemes and word boundaries as well as such phenomena as agreement, concord and government expressed through morphological signals. Cosmetic transformations determine the morphological structure of words.

⁶ For the notion of sequence as a linguistic unit consisting of sentences see Krzeszowski (1974 : 71ff).

A grammar organized in this manner involves two kinds of lexicalizations: minor and major. Minor lexicalizations insert function words and belong to syntactic transformations. Major lexicalizations insert content words. In fully elaborated codes all major lexicalizations take place after all syntactic transformations but before cosmetic transformations. In various types of 'simplified' codes, notably also in learners' interlanguages, major lexicalizations may occur at earlier stages of derivation. In extreme cases lexicalizations occur at the level of semantic representations. In such cases cosmetic transformations are either completely ignored or apply only to a limited extent according to poorly investigated rules of complication.⁷

Since major lexicalizations as it were 'fossilize' the syntactic structure of constructions, the degree of syntactic complication of a construction actually uttered by the learner is directly dependent upon the stage of derivation at which the learner lexicalizes his construction. Early lexicalizations result in the syntactically simplest constructions characterized by the absence of function words (inserted by syntactic transformations which in such cases have no chance to apply). Within this framework, complication can be defined as the gradual shift of the place at which major lexicalizations occur from the deepest level of representation, i.e. the semantic level, to the level of shallow structure, i.e. the level which constitutes input to cosmetic transformations and where major lexicalizations occur in fully elaborated codes.

One of the observations which can be made on the basis of the theory of contrastive generative grammar is that each language has its specific *pattern of complication* which consists of all possible derivations of all types of constructions derived from semantic representations through syntactic transformations. Since the initial postulate of CGG states that equivalent sentences across languages have identical semantic inputs, equivalent sentences across languages have language specific *complication routes* according for the fact that such sentences exhibit structural and lexical differences (Krzeszowski 1974:12). A foreign learner may either lexicalize prematurely, thus producing 'simplified' or 'reduced' constructions which in our terms would merely be constructions that have not been elaborated (complicated) enough, or he may pursue a complication route characteristic of his native language or of some other language which is not L₂. In all these case he will be producing deviant utterances. In the case of premature lexicalizations the re-

⁷ Imitation seems to be an underestimated though very important factor determining the acquisition of 'cosmetic' rules. 'Cosmetic' transformations account for the overt grammatical phenomena such as agreement, concord, government and word boundaries. This area of grammar is probably acquired through the poorly investigated and underestimated process of imitation and analogy, which in spite of Chomsky's claim to the contrary necessarily do play their part in any language acquisition process (Cf. Chomsky 1966 : 12ff).

sulting 'errors' may be universal in nature. If, however, the learner chooses a complication route of L_1 or of some other language different from the target language, the resulting errors may be characteristic of a restricted group of languages or in certain extreme cases (if the complication route is pursued down to its very end) of one particular language. Properly constructed CGG for L_1 , L_2 and other relevant languages should in principle provide explanation for both kinds of errors. If one considers the growing body of knowledge concerning all types of 'reduced' codes, one cannot fail to notice that universal errors can be predicted by CGG with a fair degree of accuracy. Among them are: omission of articles, copulas, tense and aspect markers and of inflectional suffixes as well as a reduction in the vocabulary of function words such as conjunctions and prepositions. These features were originally found to characterize the so-called foreigner-talk as described by Ferguson (1975). The same, however, is also found to be true of pidgins (Valdman 1975) and other 'reduced' codes such as baby-talk, 'telegraphese', 'instructions' (Corder forthcoming) and the language of Kehaar, a character in 'Watership Down', a story for children (Corder 1975).

Errors resulting from substituting complication routes of L_1 for complication routes of L_2 are language specific and can be predicted by CGG on the basis of comparisons of particular languages enumerated by CGG. Such errors may involve word order and faulty uses of various grammatical systems and rules.

Other deviations from L_2 , those that cannot be recognized either as universal errors or as errors resulting from substituting a complication route of L_1 for a complication route of L_2 , can be viewed as errors of the second order. If one agrees to interpret the foreign learner's 'fossilized' competence as a realization of his learning strategy involving a combination of premature lexicalizations and of complication routes characteristic of some language(s) other than L_2 , all the remaining errors can be recognized not so much as deviations from L_2 but as deviations from the 'fossilized' competence. As such, these errors are no different in nature from the native speaker's deviations from the norms of his own language. Errors of this type are likely to turn out to be mere slips, caused by an assortment of factors of extralinguistic character. They may require no special therapeutic measures, at least no measures which can be derived from a strictly linguistic theory.

Summing up, let us state again that 'vertically' organized contrastive grammar, deriving equivalent sentences across languages from common semantic representations provides a linguistic framework to deal with the phenomena of simplification and complication. The traditional concepts of negative and positive transfer can be augmented by the more refined concepts of premature lexicalizations and the substitution of complication routes of L_1 for complication routes of L_2 . The two types of processes can be demonstra-

ted to be responsible for a larger body of errors, both universal and language specific than it has ever been possible to demonstrate by horizontally organized contrastive analyses.

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