THE MONITOR MODEL AND CONTRASTIVE ANALYSIS

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Introduction

After three decades of contrastive linguistics we must admit that traditional contrastive analysis has failed to meet the objectives which were initially set to it. The bulk of books and papers on language contrasts is quite impressive but the number of applications remains insignificant. It is no wonder that there are more and more people who accept the criticism directed against the applicability of contrastive analysis. Such a viewpoint has moreover been strengthened under the influence of recent, particularly American, research on second language acquisition.

The reasons for the apparent failure of traditional contrastive linguistics to serve the needs of language teaching are many. Most of the reasons can be grouped under the following categories:

(1) Theoretical linguistic analysis cannot solve problems which are not linguistic alone but require multidisciplinary approaches. Several writers, e.g. Fisiak in several papers (eg., 1973) in making the distinction between theoretical and applied contrastive studies, have pointed out that theoretical contrastive linguistics is a branch of theoretical linguistics. The theoretical starting-point has resulted in what has been termed 'parasitic' contrastive studies by Sharwood Smith (1974). This state of affairs is partly connected with the rather obscure state of applied linguistics in general: applied linguistics is seen as a field which is subservient to the development of theory, and very little attention is paid to the problems that applied linguistics is expected to solve. The 'best' linguistic model, which cannot be ignored for purposes of theoretical analysis, need not necessarily be the most appropriate basis for the purposes of applied linguistics.

(2) Theoretical linguistics has undergone a hectic period of upheaval

during the past twenty years. Traditional and early structuralist views gave way to various generative approaches but today, instead of having a fairly universal frame of reference, we are in a situation in which it is impossible to tell what the next stage will be and, what is more problematic, in which it is difficult to find a common ground for decsriptions. What is beneficial in recent developments from the viewpoint of CA is the fact that, in many theories and models, what is labelled as linguistics has widened beyond the traditional code-centred dichotomy. In many cases, the previous narrow emphasis on grammatical competence has been given up, and it is now widely seen that man's communicative and social competence requires research far beyond the mere code (see Sajavaara 1977). Recent approaches are also more open to seeing language and the use of language as a dynamic process in which everything is present all the time and in which the sum total of the parts is not exactly the result of putting the parts together. Shuy (1977) has fittingly likened the grammatical elements to the visible top of an iceberg, which has been the focus of everybody's attention despite the fact that it is the mass under the sea level that sinks the ship.

(3) The theory and methodology of CA have remained undeveloped. In most cases CA has had a purely linguistic starting-point, and the interrelationship between CA and the theories of language acquisition and language learning has been rather vague. Only occasionally has a serious attempt been made to connect the two (the work by the Kiel project (see Wode 1978) and the Copenhagen PIF project, to mention a couple of outstanding exceptions). Initially. CA was generally associated with behaviourist learning theories, mainly through its closeness to early structuralism but, beyond that, the link has been negligible. If CA is to serve the needs of foreign language teaching, greater attention should be paid to research on second language acquisition/learning.

In this paper, an attempt will be made to discuss the link between the theory of second language acquisition and contrastive analysis from a rather narrow viewpoint, that of Stephen Krashen's Monitor Model (see, eg., Krashen 1978).

The Monitor Model

In collaboration with several other researchers, Stephen D. Krashen of the University of Southern California has synthetized his work on how children and adults come to control languages. He has labelled his synthesis the Monitor Model. It is a theoretical framework to describe the 'internalization' of target-language rules by the adult second-language learner. According to Krashen, this is possible in two ways, which are distinct from one another, acquisition and learning: language acquisition, which involves 'creative construction',

refers to an unconscious process, unaffected by overt teaching, which is also the way in which children acquire their L1 or L2, whereas language learning results from explicit presentation and memorization of rules (whether it is deductive or inductive makes no difference). Krashen emphasizes the independent nature of the two processes: acquisition is possible without learning, and learning does not necessary lead to acquisition.[1]

The Monitor Model derives its name from the role of the learned language system in the processing of language data: according to Krashen, speech performance is always initiated by means of the acquired system, and what has been learned is available as a monitor only which is used to alter, to 'edit', the output of the acquired system. Krashen seems to imply that self-correction by native speakers — after slips of tongue — is due to another 'mechanism', because native speakers need not have any meta-awareness of rules.

Krashen's Monitor has two major constraints: availability of time and focussing on form. One more powerful restriction is the insufficiency of certain rules for native-like performance; the rules are either too complex or defective to make it possible for a second-language speaker to 'monitor' correctly. Krashen also points to individual differences in the use of the Monitor (Krashen 1978), i.e. there are overusers or underusers. Foreign language teaching has traditionally produced overusers through its emphasis on error-correction as feedback. In the light of Krashen's acquisition/learning dichotomy, there are phenomena in L2 that can only be acquired—they are not available through explicit presentation of 'rules', ie. teaching in the traditional sense.

The main point in Krashen's model is the statement that also adults can acquire languages. This means that, instead of only acquisition, which is available for children, adults can rely on two processes, one conscious and the other unconscious. What was assumed until quite recently was that language acquisition is no longer possible after the 'critical age'. Adults develop, however, native-like intuitions about the second language and a feel for correctness, a 'Sprachgefühl', becomes apparent in their speech performance.

For acquisition, 'intake' based on the right kind of input is the most essential thing. Language acquirers should be exposed to input which is more complex than the stage which they have reached, and it should consist of communication which is meaningful to them and understood by them. Another requirement for ideal intake conditions is the 'lowering' of the socio-affective filter (see Dulay and Burt 1977). Caretaker speech, such as motherese (Snow and Ferguson (eds.) 1977) or foreigner talk (Hatch et al. 1978), mostly meets these criteria even without any conscious effort from the part of the caretakers.

The 'critical age' (late childhood/puberty) was earlier considered the boun-

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[1] Krashen's view of the word 'learning' differs from the meaning that is generally given to this word. It implies that teaching is for him a target-bound process whose objectives are known both to the teacher and the learner.

dary between 'natural' processes of acquisition and a period when the child becomes capable of analyzing experiences and conceptualizing the world around him, when he develops a competence to 'learn' in Krashen's sense, ie. he has a conscious knowledge of the abstractions he is dealing with and is able to memorize them for future use. People without any formal language training have no meta-awareness of the rules which make up the basis of their linguistic competence.

Expansion of the Monitor Model

The fundamental ideas in Krashen's Monitor Model are easily acceptable on the basis of the intuitive knowledge that every foreign-language learner has in his possession. The basic dichotomy, the distinction between the two systems of 'rules' (reflecting the double meaning of 'grammar' as the native speaker's competence and linguists' attempts to describe that competence), is not new; it is found well before Krashen (see, eg., Corder 1967, Lawler and Selinker 1971). Similar ideas have also been put forth simultaneously by Widdowson (1977). Leontev (1973) has developed a system which comprises four levels along similar lines. Krashen, however, makes the first consistent effort to explain a variety of well-known phenomena around post-critical-period second-language performance, including the conflicting findings about language aptitude and attitude.

Krashen seems to have received his original idea from Labov, who writes that "the most consistent and regular linguistic system of a speech community is that of the basic vernacular learned before puberty" (Labov 1970:35). Labov's arguments are based on material which he worked upon in connection with delayed-feedback and white-noise experiments carried out by Mahl (1972). Labov points out that when native speakers stop monitoring their speech, the pattern superimposed on the vernacular begins to disintegrate, and he concludes that the "overt social correction supplied in the schoolroom can never be as regular and far-reaching as the unconscious effects of 'change from below' within the system".

The true nature of monitoring in speech performance remains to be studied. Restricting it to the functioning of the 'learned' system in second-language speech performance — the way in which Krashen does it — may have been necessary as a working hypothesis and as an initial model, but there are a multitude of factors that seem to imply that a speaker's second-language performance should not be considered as something distinct from his overall capacity for speech perception and production and from processes that transform communicative intentions into utterances. Labov's audiomonitoring can be defined as 'attention paid to speech", and this is roughly what is meant by Krashen's Monitor. This kind of monitoring is not restricted to second langua-

ges; people monitor, consciously and unconsciously, their own and other people's speech whatever language, L1 or L2, it is in (see Laver 1973, Cazden 1972, Levelt 1977). Cazden (1972) seems to be willing to equate monitoring with metalinguistic awareness, which implies that the nature of monitoring is dependent on the existence or non-existence of superimposed systems. It may be difficult to restrict the monitor to the last stage of the output system in the speech production programme, and the data speak for several levels which are closely interrelated and linked with the discourse history and the speaker's state of mind (Yngve 1970) and whose scope depends on the nature and presence of various internal and external constraints. Figure 1 is a highly tentative attempt to synthetize the information about the speech production processing (for a more detailed account, see Sajavaara 1978). It is important to remember that the mechanism there is for editing the output is not concerned with grammatical processing alone but various features of the semantic and pragmatic information may even be a more important object. In this context it is not possible to elaborate the problem of the constraints on monitoring. Figure 1 includes a few references to constraints which may be present. The idea of performance capacity is extremely important, because the total capacity that a person has at his disposal cannot be easily increased under normal circumstances.
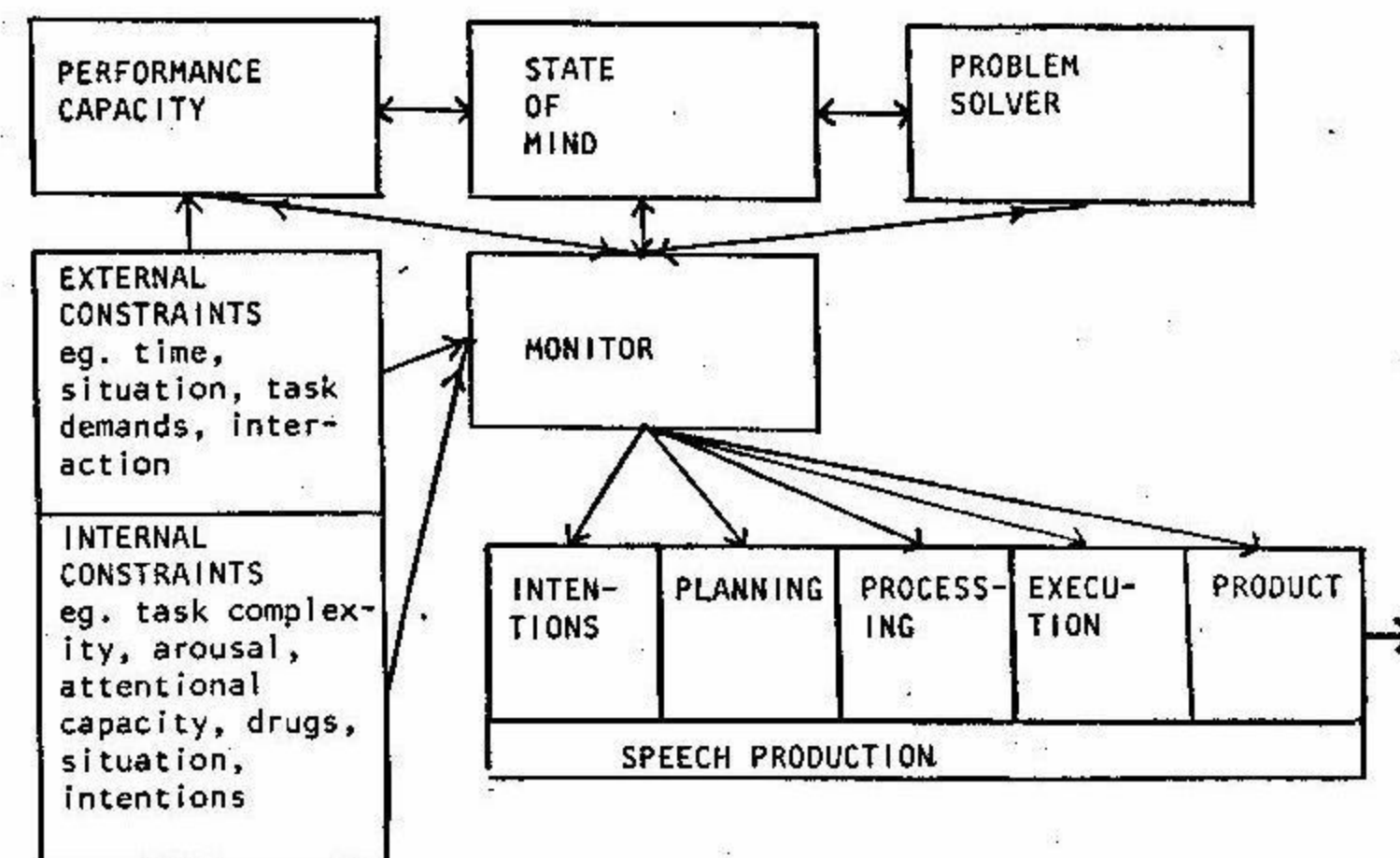

Figure 1. A tentative representation of the various parameters present in the speech production programme. It is also to be assumed that there is a direct link between the stages of speech production, on the one hand, and performance capacity and state of mind, on the other.

cumstances and, if more capacity is needed, for instance, for problem-solving, the capacity available for monitoring is greatly reduced.

One of the major problems is one which is present in most studies dealing with human sciences: the external, observable, physical phenomena, in this case speech performance, may have no direct one-to-one relationship with mental phenomena; thinking and intentions may not be reflected in actual utterances, or are reflected only indirectly.

Krashen's Monitor provides a good starting-point for research on speech performance in which a more extensive model for communication and language acquisition/learning is developed. It does not seem necessary to make a distinction between first-language or second-language acquisition and foreign language learning and performance. Initially, a restriction to adult second-language performance may have been rewarding, but an extension of the model seems necessary. Questions to be answered for it include the following:

(1) What is the interrelationship between Krashen's model and the overall theory of language behaviour?

(2) What is actually monitored and at what stage of speech production?

(3) Is monitoring different for L1, L2, or foreign languages and, if there is a distinction, what is its nature?

(4) Can learning and acquisition be kept as distinct and independent systems and is such a distinction necessary? When does learning become acquisition, ie. how much input/intake is needed through learning before acquisition is possible? To what extent is the difference between what is acquired and what is learned due to the deficiencies in linguistic theory and the theory of language behaviour (the 'rules' do not describe a native speaker's competence)?

(5) What is the relationship between the skills involved and the automation processes, on the one hand, and the acquisition/learning dichotomy, on the other? Are there language phenomena that can only be acquired?

(6) What is the nature of the constraints on the potential uses of the monitoring system from the viewpoint of the entire communition process?

L1 influence on L2

Labov (1970:36) takes interaction between the rule systems of the variants of one and the same language for granted. "The knowledge of one system inevitably affects the other. The rules of standard English and its non-standard relatives are so similar that they are bound to interact." It may be easier for language learners or bilinguals to keep two different languages apart, particularly if the languages are genetically far removed from each other (which is actually a statement quite contradictory to the initial contrastive hypothesis) but, even if the codes, ie. the grammatical systems, can be kept distinct, there is a lot of overlap through various functions and communicative and other

intentions. The existence of a multitude of foreign accents in English and various types of pidginization and creolization processes implies cross-language influences. The picture is further complicated by the fact that these influences are not unidirectional: L2 may also affect L1, or there may be several L2s which interact and are imposed upon L1.

Plenty of evidence has been gathered in the last few years of the consistency of the patterns representing the processes through which children acquire control of L1 and L2. Moreover, the evidence for the rough similarity of the acquisition sequences of English irrespective of the acquirers' starting-point is quite convincing. The research mainly deals with the acquisition of English in natural settings, and only morpheme acquisition sequences are normally studied. It is open to question, however, whether the results of such studies are generalizable outside the sphere of morphemes and to more formal situations, in the classroom for instance.

The morpheme sequence studies give a uniform picture of the acquisition sequence (see, eg., Krashen 1977). These results can be used to deny the L1 influence on L2, because the sequences are the same for speakers of various L1s (see Dulay and Burt 1977). There is evidence, however, of individual variation (Hakuta 1974, Andersen 1977) and, to a certain extent at least, the uniformity may be due to the statistical methods used (see Rosansky 1976). The morpheme sequence technique must be extended to wider entities (see Hakuta and Cancino 1977), various syntactico-semantic functions of morphemes must be observed, and individual variation needs to be investigated in detail using various techniques (see also Dulay and Burt 1975). Second-language studies must be replicated with foreign-language learners and with learners from different age groups.

According to Krashen (1978), speech performance is always initiated by means of the acquired system and the learned system is available as a monitor for editing the output. We must assume that in acquisition-poor environments a non-native speaker would have to rely, accordingly, on his L1 competence as a performance initiator (the grammar-translation method used in the classroom provides an example). The initial L1 string is then processed, ie. 'translated', into an L2 string, whose grammaticality and acceptability depends on the availability of 'rules' and on the nature of the constraints present. As a result of optimal acquisition the L2 string is initiated and processed on the basis of the acquired L2 system without the interference of Krashen's Monitor. In this way we have two extremes: at one end we have total acquisition, which results in native-like performance without a trace of L1 influence and at the other end we have a language system in L2 which is based entirely on explicit memorization of rules (this is highly hypothetical, because it seems rather impossible to figure a full-scale learned system without any trace of acquisition), which is sufficient for the production of acceptable L2 strings

under favourable circumstances. In between there are a variety of combina-tions of acquired and learned partial systems. With the exception of a few L2 acquirers in ideal surroundings, most L2 speakers are located somewhere between the two extremes, which implies that at least occasionally they have to rely on the L1 systems for speech reception and production. This is the case when the L2 unit has not been acquired and the monitor fails to give the right answer. Non-acquisition is due to insufficient or non-existent input, while the failure in the functioning of the monitor may be due to either insufficient performance capacity or unavailability of a sufficient number of correct rules. There may be no rules, the rules have not been 'taught', the rules may be wrong, or the speaker may apply 'wrong' rules belonging to either L1 or L2 (or a third language). If the acquisition/learning dichotomy proposed by Krashen is correct, L1 influence on L2 surface strings may be due to the fact.that (1) the string has been initiated by the acquired L1 system and the monitor has not been able to correct the string, for reasons such as those mentioned above, (2) the monitor lacks the correct 'rule' and an L1 rule is used as a repair, or (3) strings originally initiated with correct L2 acquired systems are, for some reason, mutilated by the learned system. In any case L1 'interference' in L2 means in Krashen's model that acquisition has not taken place. The process referred to in (3) above may be an exception, and we may safely assume that the L1 and L2 acquired and learned systems are closely interlinked and that the acquired and learned systems are referred to several times during speech production, which may result in highly variable performance by the same speakers in different situations. What all this implies is that what has been called interference from L1 is a complex system of interrelationships and that the research on language transfer has had a far too simple starting-point.

In most cases we have only the final product, the surface string, and the processes that have led to it remain obscure. We need methods to study the stages before the actual utterance. For instance, we can start by replicating Mahl's experiments with prevented audiomonitoring and delayed feedback. On the basis of Labov's findings it could be hypothetized that prevented audiomonitoring would result in the increase of L1 influence in the speech of non-native speakers whose acquisition level is low. Other methods are needed in which the functioning of the 'monitor' could be observed (intuitive know-ledge from situations in which L2 speakers experience high states of arousal (fear, anger, etc.) speaks for the hypothesis of increased L1 influence). The preliminary experiments with Finnish speakers of English using delayed feedback and prevented audiomonitoring which were carried out by the Finnish-English Contrastive Project gave conflicting results and more material is needed before any conclusions can be drawn.

Theoretically at least, it is possible to delimit certain environmental and other parameters which either maximize or minimize the amount of intake necessary for acquisition. There are at least four levels:

(1) *type of exposure to L2:* acquisition is at its lowest in formal teaching that is based on explicit memorization of rules and at its highest in situations of natural language use;

(2) *age of acquirer/learner:* children before the 'critical age' mostly acquire; older people can both acquire and learn, but explicit memorization of rules and their application to practice becomes more difficult with age; the same may be true for acquisition, although we lack consistent evidence (the apparent inability to acquire may be due to defective enculturation or other similar factors);

(3) *type of rule system:* the further away we go from purely grammatical competence in the traditional sense, to semantics, notional categories, prag-matics, and sociolinguistic rules, the more relative importance must be at-tached to acquisition; and

(4) *level of enculturation* (Schumann 1978): optimal acquisition requires a high level of enculturation or integrative motivation, while a total lack of them may block acquisition entirely.

These four criteria may occur in different combinations. It is to be ex-pected, on the basis of what has been said above, that reliance on L1 systems is at its maximum when the level of acquisition is low (mainly because not all rules can be taught), ie. one, or all, of the above criteria works against acquisition. Therefore, errors due to L1 can be expected in greater numbers in formal classroom situations, with older acquirers/learners, in the application of pragmatic and sociolinguistic rules (which may have their impact on other rules), and under circumstances of a low level of enculturation. This may partially explain the fact that traditional contrastive analysis has not been able to predict errors consistently and that errors that have been predicted have not occurred at all.

Conclusion

If all speech is initiated by means of the acquired system, what is important for native-like speech performance is input in natural and meaningful com-municative situations. Everything cannot be taught explicitly, because we lack the 'rules'.

What is then the value of contrastive linguistics? Traditional contrastive analysis — contrasting of rule systems of two or more languages — is needed for providing us with better descriptions which can be used for building up better explicit rules to be memorized by the learner, which is a way to a better starting-point as regards acquisition. CA is also necessary in the work to esta-blish the language systems which cannot be 'learned' in the second language.

It is obvious that traditional CA must be extended to the observation of L2 speakers in speech communication with native speakers to study the parameters that affect the success or failure of communication. Their L2 speech must be compared with their speech performance in their L1 and with that of the native speakers of L2 in similar situations. Particular attention should be paid to the processes involved in speech production and perception. The interrelationship between production and reception also requires greater attention.

The value of CA is small or nil in environments of optimal acquisition, but it grows in correlation with the distance to such a situation along the parameters sketched above.

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