

THE LINGUIST, THE LANGUAGE TEACHER, AND CONTRASTIVE ANALYSIS

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Labelled scientific specialities clearly need not include only the unified research behaviour of a group of scholars and exclude all deviant opinion. To an external observer like myself, however, contrastive linguistics, or contrastive analysis, seems a perplexingly multifarious speciality. Since its practitioners claim that it can contribute more to language teaching than many other linguistic activities can, it requires our attention. For what can be more immediately profitable than improving language teaching? So many people are concerned by any little improvement worthy of propagation that results multiply to large amounts of gain. In consequence, contrastive linguistic research could claim special favours of funding.

Contrastive analysis (hereafter CA) aims at language teaching improvements. In the CA model, learners possess a base (source) language - their language of daily use prior to conscious language learning - and intend to learn another, the target language. CA will not only provide background reading materials for teachers, but aims at influencing directly what is taught, how and when. Contrastive methodology consists of subtracting grammars (written according to the assumptions of linguistic science) of base and target languages from each other, thus noting differences (and similarities). Similarities facilitate learning, and differences cause difficulties for learning; differences can be graded according to difficulty, and they must be systematically incorporated in teaching materials. (Cf. methodological descriptions in Valdman, 1966 and summary in Nemser & Slama-Cazacu, 1970.) The aims of CA are (as summarized by Nemser & Slama-Cazacu, § 2.2.2.1): "What has been described as the strong claim of contrastive linguistics is the ability to predict learner speech behaviour on the basis of a comparison of B [base language] and T [target language]. The weak claim professes the ability to explain such behaviour

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after the fact, by reference to the two systems in contact.", with (op. cit.. § 2.1) " the principal objective of facilitating the learning of one of these languages - the 'target' language..." It is the (scientific)linguist himself who compares ("contrasts") descriptions of target and base languages and predicts critical features of the learner's language behaviour.

In support of this summary I quote also Rivers' feeling of the pulse of the contribution of linguistics to language teaching, 1964 (page 13): "Teaching methods rest on the careful scientific analysis of the contrasts between the learner's language and the target language." And (page 14): "This [CA] is the distinctive contribution of the linguistic scientists, and the result of studies of these contrasts are incorporated in the materials prepared for class and laboratory work." She is even more explicit in 1968 (page 153): "the specific point at which interference will repeatedly occur, so that he may practise with awareness and concentration and monitor his own production with watchfulness until he finds himself producing the target language forms with ease and accuracy." (For more quotes of the same sort, cf Oller, 1971.) Rivers gives the professionally dominant view, that points of difference between languages as revealed by contrastive subtraction predict learner behaviour in the classroom and therefore shall be used, directly, in teaching materials. A more humble, or at least more careful, view of a linguist's contribution may have been held by many other workers, e.g. by Lado (preface, 1957). To simplify the discussion, I will ask the reader to keep in mind the socially dominating "misunderstanding" of early, humble suggestions - although this particular distinction will make little difference to my arguments.

CA was born when structuralism reigned in America. Language difference was a pillar of faith, and language difference made explicit in aid of language teaching became the contribution of CA. It spread to other countries, due to the strong influence of matters American, including linguistics. In America it was consolidated, because American academic life seems to demand within-group coherence and between-group distinction - which means "schools" or "specialities". It is surprising that particularly European linguistics could not resist the term CA: it has a Russian tradition with comparable aims and methods, a Czech, too, and language teachers and linguists alike have a long documented interest, etc. But the split of Europe in national traditions may be reason enough? Individuality accompanies great differences in linguistic thought, oral or other direct exchange of communications on professional issues is weak between nations. That a single country like Sweden accepts CA is less surprising:

- linguists are strongly America-oriented but with delayed reaction
- a language teaching crisis in the school system (cf articles in Moderna Språk, 1970) and immigrant language problems create demands of particular strength
- linguists are under political pressure to demonstrate their usefulness to society.

Language teachers have acquired treasures of experience of language teaching, and therefore also of learner behaviour. In part, they communicate their experience through textbooks, notes, articles, the teaching of teachers, discussions, dissertations. But most teachers are limited by available scientific expression from drawing conclusions on the basis of their own behaviour, in the same way as the linguist cannot write the final grammar just because he happens to be born human and knows a language. From this point of view it is obvious that linguists, pedagogues, teachers, psychologists, and any other potentially contributing scientists and practitioners, should co-operate towards a unified theory of language learning. A promise for results on the basis of linguistics alone cannot be kept, unless the linguist has reasonable control over all other factors that influence language learning - an experimental stage that it is very hard, if not impossible, to reach. Much of recent criticism of CA has been based on an unhappiness with the diseconomy of predicting "errors" that in fact never or rarely occur, or, rather, will not be subject to observation, because of the presumed interaction and influence of factors other than the linguistic one on learner behaviour. Unless the effects on language behaviour of all relevant factors are known or reasonably controlled, tests cannot be carried out, and any hypotheses will remain hypotheses. Clearly, this is unsatisfactory for anyone who wants real scientific progress. It is unsatisfactory for those who advocated a humble, contributory CA and those who went all the way, alike. Neither obtains empirical feedback! So a real problem of CA is finding opportunity for testing hypotheses - otherwise research is fruitless.

The language teacher's experience would seem to be an excellent source for knowledge. If the linguist could understand a language teacher's behaviour towards his pupils (regardless of the teacher's own ability to explain his behaviour) much would be won. But what would that mean? It would mean that the linguist has a theory of language that sorts and explains a person's observed language behaviour, and we know this to be the aim of linguistic science. The linguist remains a linguist! We do not need a speciality of linguistics, in other words,

but linguists who have the will and desire to study language data from language learning situations rather than data from, say, eskimo languages or whatever competes for their interest. Co-operation between disciplines will give results, the creation of specialities rather hinders such co-operation. If pedagogues, psychologists, and others add their theories to our understanding of language, language learning could perhaps be explained and improved in the real sense of the word.

It also appears plausible to assume - and this assumption was not available to structural linguistics - that an individual's language learning is determined by his language capacity, not by structures of particular languages. His language capacity makes it possible for him to know the base language, learn the target language, and also other languages. This accumulated knowledge of languages (of particular language structures) makes use of components of individual language capacity in a definite manner. If Swedish were a learner's only base language, Swedish would use his capacity in a manner which differs from the manner in which Russian would use it, were Russian his base language. We obtain different points of departure towards a target language (as also CA assumes). But, firstly, it would seem to follow that the learner is influenced by other language structures than base and target, if he knows other languages. (Incidentally, there may well be a combination of language structures a, b, c, ... which influences the learning of a target language in a way equivalent to the combination of structures x, y, z, ...) Secondly, looking at language learning from this point of view demands a study of language learning as a general human ability - and its rules - rather than a set of comparisons of paired language structures as they appear in grammars.

Furthermore, there already exist research traditions with such aims, e.g. Russian or Czech typology (cf V. Skalicka's work). In fact, the latter tradition develops theoretical ("universal") notions of language on the basis of multi-language comparison and hypothesis-testing. Contemporary theoretical linguistics also offers a viable alternative to the original kind of CA, because of its emphasis on language competence. By accepting "deep-structure" models, CA has increasingly become -- theoretical linguistics! It is being transformed into a methodology for comparing languages to improve language theory. The fact that detailed, synchronic comparison of languages is conceived as a novelty by some people - which for them it may well be - only makes this transformation take place with greater ease. For what kind of data does the theoretical linguist seek? He tests, as we know, hypotheses on

several languages, while previous structuralism in America denied (at least in principle) the theoretical value of language comparison. (Parenthetically, does this circumstance help to explain the expansion of CA in the early 60's, as development and reaction to exaggerated structuralism? Of course, there was the language teaching money, too!)

CA started crumbling even prior to the Georgetown Conference (Alatis, 1968) but it must have fallen by the time of the Pacific Conference on Contrastive Linguistics and Language Universals in 1971. About 175 scholars from 22 countries came to Hawaii in January to participate in this Conference, so the papers that were read probably give a fair picture of current opinion (and fact?). A selection of papers are reproduced in the Hawaii Working Papers (1971), in all 25, out of which 20 comment on CA. Since the Georgetown Conference, CA has been sharply devalued, or, better, the level of aspiration has been reduced. Some authors try finding new aims, new means, for the old label rather than give it up, although the latter alternative may be less painful. The main currents are in the directions of theoretical linguistics, typology, synchronic comparison for comparison's sake, and in some cases, "transfer grammar." Authors who insist on keeping the pedagogical aims as originally formulated for CA appear to find it easier to drop the contrastive method, and speak instead of the psychology of learning, error analysis, and so on. Otherwise, contrastive as a term is equated with comparative, and comparative studies are said to aim at disclosing linguistic universals. Critics of CA are particularly fond of quoting the papers by Ritchie (1967) and Wardhaugh (1967, 1970).

So, for instance, does Selinker distinguish two lines of development of CA: a comparative one about which he declares that its "practical nature" must not be "overlooked" and that it may disclose the odd item of interest through inspired "fiddling" with language data; and a theoretical one - which is theoretical linguistics.) (He quotes John Ross' deep-structure testing on several languages.) The word "universal" gets a chance and we witness how the originally structurally based, language-differentiating CA has married its opposite of today! Higa suggests a widening of language comparison to include also the speech situation. I regard this a necessity: knowing a language well, should mean communicating well. Societies differ not only with regard to "grammars" but to speaking, being quiet, conversational arrangements and much more of the like. (In this paper, however, I discuss only the language sector of communication.) Hoffer has given up pedagogy, as Selinker, and advocates the sameness of contrastive and synchronic comparative linguistics:

"... type of grammatical theory which is most useful in contrastive analysis is the one which assumes a unitary deep structure from which typological rules, genetic rules and language specific rules specify the structure of a language... both comparative and contrastive linguistics are the same procedure in this approach..."

Kim, Ota, Llamzon, Kusanagi compare languages by transformational generative models; the latter as Ota to "verify what we have assumed to be universal features", Llamzon to discover whether generative grammar helps him to understand student errors. Analyzing learner errors, Ota suggests that "overgeneralization" of grammatical rules explains some errors, although, as he says, he cannot be sure because of learner "carelessness, erroneous or inadequate instruction." Nevertheless, generalizations about learner rule formation have considerable interest (cf Nemser & Slama-Cazacu on approximative systems, § 4.3, or specifically Jernudd & Lindau on overgeneralization). Error analysis is less of a problem than predictive contrastive analysis, believe Palmer, Nababan, Gradman and Levenston. The latter three find that CA has failed in predicting learner errors; Gradman says in one of his two papers that "premature prescriptive theories such as the contrastive analysis hypothesis do a disservice to the language teaching profession." Theoretically, he says, CA is "untenable" and practically "inapplicable." Lacking attention to non-linguistic factors, e.g. learner age, level of study, partly account for many incorrect predictions, according to Nababan. They suggest a contrastively based, but a posteriori, analysis of learner errors (as opposed to the a priori prediction of errors by original CA).

If CA is based on the assumption that observed language errors have multiple sources - one linguistic - then the a posteriori and a priori methods are only trivially different. As it is, the a posteriori method differs from the a priori method by predicting, on a linguistic basis which errors shall appear - but after the errors have already been recorded! The a posteriori method may escape criticism because of this very fact, that only observed errors give data for prediction; and the predictions are made to fit that same data. Empirical success is guaranteed! The method is sound only if multiple causation of errors is taken into account, and in that case hypotheses are inspired by observed, available data, but tested on new data - which is an a priori procedure! It does not really matter whether ideas for hypotheses emerge after painstaking analysis and classification of student errors or strike the researcher out of the blue - as long as they are properly tested and anchored to a developing theory. It may well be, however that the researcher saves time if he takes care to have a look at the

state of the world before he starts guessing about it - and errors are probably good to have then.

Rodgers wants to measure linguistic "difficulty" - and says that CA lacks empirical validity. Jackson and Oller say the same thing. Few tests have been made, and those made do not confirm the hypotheses. The latter turns to the experimental psychology of learning, and advocates the need to understand the situation of learning in full ("the semantic and pragmatic context"). Cheng and Makkai have discarded CA in favour of "transfer" or "conversion" grammars (apparently an old idea in new, promising garb, cf Harris 1954).

Finally Nickel (of the PAKS - Project, and IRAL) wishes to establish co-operation between linguists, pedagogues, psychologists and "representatives of other disciplines. We will have to find out more about the learning processes and learner's mentality in order to improve language learning," he says.

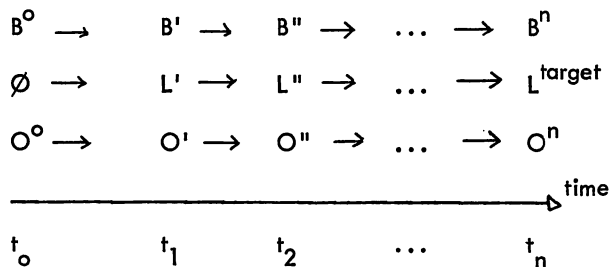
Nickel has given his views on the new comparative linguistics that has grown out of the failure of original CA (although Nickel still calls it "contrastive") in another recent article (1970). He stakes out a claim for "typological studies" but dismisses, perhaps too quickly, Prague school typology as "philological." "New" CA helps language teaching by making available very precise comparisons of languages, but, he says, "neither theoretical nor applied linguistics can offer more than a partial contribution to the planning of foreign-language teaching." A number of other factors must be taken into account, "e.g. age and sex of pupils, teaching objectives, the psychology of learning, etc." Nickel has abandoned original CA by limiting its aims: "Finally", he says, "mistakes have "psychological" origins, e.g. lack of attention. The linguist is not responsible for predicting errors of the latter kind. It must be constantly emphasized that the contribution of contrastive linguistics to the design of teaching programmes is only a partial one."

Nickel feels that linguists and teachers "could co-operate to good advantage," and he summarizes the aims of "applied contrastive linguistics" (sic!) as follows: "to aid the textbook author in collecting and arranging his material and to help the teacher in presenting his subject-matter." The objective of (not applied) contrastive linguistics will, however, be to "provide us with a clearer conception of common and divergent features of languages"

and perhaps then "show us a new and doubtless more systematic approach to the question of universals." This is, in my opinion, genuine (and probably excellent) theoretical linguistics, and there is absolutely no reason to invoke the ghosts of CA - so much the less as such labelling obviously demands the application of "applied" modifier!

In conclusion, the PCLLU papers agree that interference-inspired language comparison for teaching purposes (CA) will lack empirical feedback. As long as that continues to be the case, i.e. until CA has become something else, linguists will feel disinclined to engage in such work. Adding a study of other than linguistic factors in the learning situation would seem to help. But even so, the linguistic component may not now be well adapted to this more realistic, co-operative research. We are fortunate to have other suggestions, as presented, for instance, in Nemser & Slama-Cazacu, 1970. The outline of a theory presented below in all essentials builds on their article. As will be noticed, the old notion of sequence of grammars (stages) is used. Also, a fundamental assumption is that a person's capacity for language ("competence"; I use "capacity" to emphasize competence for language, not competence of a particular language) governs his ability to express himself by knowing and using one or several languages - and any single language may not demand or reflect the full potential of an individual's language capacity.

I will base my discussion on the figure below:



The language to be taught/learnt is L. In the time available, t_0 to t_n , a person shall learn at least the amount L^{target} of L. Many language teachers and learners experience that the learner's own (base) language (B^0 at t_0) changes in at least some regard as a result of learning another language, and we therefore hypothesize the sequence of B^0 to B^n , also. In addition, the symbol O in the figure stands for the learner's knowledge of other languages than L and B. The individual's knowledge and use of O also change,

either as an effect of the concurrent teaching of O (which, of course, applies to B as well) or as an effect of "spill-over" of the learning of L or via changes in B. (Subsequent differences in use of B or O are sometimes negatively evaluated, e.g. increased use of "foreign" words.) The essential research problems, however, are

- 1) how the learner's language capacity determines the sequence of grammars of L, B and O and
- 2) how the learner's language capacity changes as a result of his widened experience of different language structures and modes of use.

According to contemporary discussion, we assume differential effects on a person's capacity for language if language exposure differs in his early childhood. Much research effort is spent on studying, also, the time-dependent reorganization of language capacity as evidenced by sequences of grammars during children's acquisition of language. Of course, linguistic theory is bent on finding out about language capacity.

Also, it is essential to distinguish between a learner's use of language and his ability to talk about language, i.e. his ability to use linguistic terminology, to perform syntactic analysis etc. Discussion about language teaching consistently returns to this problem: to what extent is language learning facilitated by explicit comment ("explanations"), cf Fevrell 1909 pages 58-60 and 127, or Lindell 1971 pages 104-5 and 127-8. Since all speech communities have developed ways of talking about languages (some have professional linguists...) it would appear reasonable to assume that some commenting on language data in teaching helps more than none. But it becomes an intricate research problem (to discover what to say when in given learning situations), when this factor of teaching is made an object of explicit study.

In summary, over time the language learner acquires more of language L (hopefully!) he learns about language (s), and he learns how to learn (languages in particular). His language capacity may change, also.

In the above model of language learning "contrasts" can be constructed: between stages of knowledge of each language in time and at a given time - but such "contrasts" run counter to the assumptions of CA. For instance, L" is a manifestation of language capacity at t_2 which is immediately related not to B^0 at t_0 but to the manifestations of language

capacity at t_1 , namely B' , O' and L' . (Similarly, L''' is immediately related to B' , etc.) The fundament of CA has been ruined: learners develop new knowledge and solve difficulties on the basis of gradually different L, B, O grammars as determined by their language capacity, not on the basis of the whole of L - that they do not yet possess - and only L and B as CA assumes. Furthermore, some learners will proceed faster than others in the same group, and differ with regard to content and emphasis in their paths through the model.

We have already mentioned the need to take into account other factors than linguistic ones if we are to succeed in explaining language learning behaviour as it can be observed, e.g. learner motivation, locale, teaching materials, and so on. Externally induced pleasure of learning may well be a more critical factor to ensure learning success than attempts to organize language data in one way rather than another - if human language learning depends more on our capacity for language than on "conflicts between language structures" (cf Ingram 1971).

It is not the fault of CA that its predictions vary with the theory of language it selects - but it is is unfortunate for CA that theoretical linguists make a living by changing theories of language (to ever better ones...). Yet, a language teacher gets good results, and he knows how to react to learner problems of all kinds, not only linguistic ones, to maintain high standards. This he has acquired by participation. His experience offers a platform for research by exchange of knowledge: the language teacher shares the thoughts of linguists, and vice versa, other learning specialists not forgotten. The linguist abstracts, generalizes, expresses, and the experienced language teacher reacts to, weighs, guides, the joint results in a direction which promises experimental confirmation. But it takes a lot of work to make the two meet - both in the social sense and so that they understand each other.

Another way of using the teacher's store of experience is to test hypotheses not with pupils first but with their teachers, if a suitable research design could be developed for this: what does the language teacher expect will happen, given the learning situation, if such-and-such a variable is manipulated etc. He cannot express his experience, without special training, any more than a linguist can write the ultimate grammar before he has learnt linguistics. But he can be made to choose, to rank, to guess what will happen.

Co-operation between linguists and language teachers also ensures that real and not imagined problems are dealt with first - and I believe such an order saves disappointments and money. As noted above, observed errors economize with research efforts, too, if rightly used.

Serious, co-ordinated research on language teaching - with the linguists, teachers, pedagogues, psychologists and others - would aim at explaining sequences, and inter-dependencies between sequences, of the gradually different grammars of L, B and O and the not manifested, but potential, residual of everyone's language capacity. (Nemser & Slama-Cazacu names this: generalizing about approximative systems.)

Should a linguist need to give himself a label when he works on language teaching problems, he could perhaps say that he is interested in language pedagogy. When he has become expert enough to take the teacher's or pedagogue's jobs, he could suitably add their professional titles to his own. And language pedagogy needs them all!!

REFERENCES :

- Alatis, James E. ed. 1968 Report of the Nineteenth Annual Round Table Meeting on Linguistics and Language Studies. Georgetown University Press.
- Fevrell, Walter. 1909. Bidrag till de Moderna Främmande Språkens Metodik. Uppsala Universitets Årsskrift.
- Harris, Z. S. 1954. Transfer Grammar. International Journal of American Linguistics 20: 259-270.
- Jernudd, Björn H. & Mona Lindau. To appear. Approximations to Swedish Phonetics by Australian English Learners. IRAL (Preliminary version in Linguistic Communications 3, 1971, Monash University).
- Lado, R. 1957. Linguistics Across Cultures. Ann Arbor: University of Michigan Press.
- Lindell, Ebbe. 1971. Främmande Språk i Grundskolan. Pedagogisk Orientering och Debatt, 34. Lund.
- Nemser, William & Tatiana Slama-Cazacu. 1970. A Contribution to Contrastive Linguistics (A Psycholinguistic Approach: Contact Analysis). Revue Roumaine de Linguistique 2: 101-128.

- Nickel, G. 1970. The Interaction between English and Other Languages. The Incorporated Linguist 9:4: 99-106.
- Oller, John W. 1971. Difficulty and Predictability. In PCCLLU: 79-98.
- The PCCLLU Papers. 1971. Working Papers in Linguistics 3:4. University of Hawaii.
- Ritchie, William. 1967. Some Implications of Generative Grammar for the Construction of Courses in English as a Foreign Language. Language Learning 17:45-68, 111-32.
- Rivers, Wilga M. 1964. The Psychologist and the Foreign Language Teacher. University of Chicago Press.
- Rivers, Wilga M. 1968. Contrastive Linguistics in Textbook and Classroom. In Alatis.
- Valdman, A. ed. 1966. Trends in Language Teaching. McGraw Hill.
- Wardhaugh, Ronald . 1967. Some Current Problems in Second Language Teaching. Language Learning 17: 21-26.
- Wardhaugh, Ronald . 1970. The Contrastive Analysis Hypothesis. TESOL Quarterly 4: 124-130.