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ABSTRACT

This paper discusses error analysis as one source of evidence for an overall theory of second language acquisition. Four related areas which form the context for error analysis are discussed in relation to second language learning and the goals and methodology of error analysis; (1) theories of the nature of language which determine theories of error analysis; (2) the study of language systems in contact, which seems to indicate that syntax is subordinate to semantics; (3) the learning of linguistic systems, divided into learning the code (sentence) and learning how to use the code; and (4) the use of linguistic systems in communication, concerned with the nature of the learner's "utterances," in contrast to "sentences." Although the present study is not considered definitive, it is believed that with further study error analysis will greatly influence attitudes toward language-teaching problems. (AM)

THE CONTEXT FOR ERROR ANALYSIS

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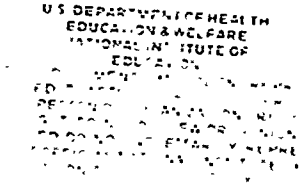

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THE CONTEXT FOR ERROR ANALYSIS

The question of how a person acquires a second language is naturally central to any theory of second language teaching. In recent years, error analysis has emerged as an active area of research within the field of second language learning, and increasingly sophisticated techniques are now being made use of in investigating the nature of the second language learner's competence through error analysis studies. This is seen in the work of Susan Ervin-Tripp, Marina Burt and Heidi Dulay, Richard Tucker and his students at McGill, Evelyn Hatch and her students at UCLA and Merril Swain and her colleagues in Toronto, to name but a few. Different accounts of the nature of linguistic structure and different theories of the language acquisition process are being examined. A much greater and more complex set of variables have been identified for exploration and the excuse for somewhat oversimplified generalizations no longer exists. This had led to a questioning of the principles of contrastive analysis but has reintroduced more complex theories of the relationship between the first and second language in language learning.

Error analysis may be regarded as one source of evidence for an overall theory of second language acquisition. As such, four related areas of study form the context for error analysis. These are:

I. The nature of language.

II. The nature of language systems in contact, i.e., bilingualism.

III. The learning of linguistic systems.

IV. The use of linguistic systems in communication.

These four issues are interrelated and our position on them provides the theoretical model from which we begin, determines the type of data we look for, and influences the way we interpret our data. I shall begin by discussing a theory of the nature of language in relation to the goals of error analysis.

I. THE NATURE OF LANGUAGE

Changes in linguistic theory inevitably influence, albeit indirectly, the field of second language learning, though rarely does the process work the other way round. Linguists do not seem to consider second language learning a testing ground for linguistic theory. The relationship of linguistic theory to applied research however is well evidenced by the link between structural linguistics and contrastive analysis, and also in recent "error analysis" studies such as Carol Kessler's fine study of the development of syntax in

bilingual children, using a case grammar language model as a base, and in Lourdes Bautista's recent study of the linguistic competence of bilingual Filipinos, using transformational grammar as the linguistic model. Such studies relate bilingual language performance to particular theories of language and the nature of linguistic structure, and illustrate how different conceptions of language result in different accounts of the significance of learners' errors. The basic issue is "how deep are learners' errors?" Some would argue for example, that an error of tense in a Turkish student's composition results from a fundamentally different conception of time, from a quite different way of thinking about the world from that of an English speaking person. I think most of us however would reject this view. The current interest in some branches of linguistics and allied disciplines in in how humans code experience into basic semantic and conceptual units from which the basis for various modes of cognitive expression, including language, is constructed. Language is one mode of cognitive expression, that is, one way of expressing a fraction of what goes on in the human mind. Like other forms of cognition it is derived from language independent conceptual sets. Learners' errors are seen as manifestations of how the learner reconstructs the syntactic and phonological rules used for the realization of these conceptual sets and deep structures. Admittedly, we have not been very successful in unambiguously establishing what these basic conceptual and semantic sets are. Language is itself an apparently inadequate means of describing them. Taylor, for example, resorts to characterizing the cognitive basis for a whole abstract pattern of relationships crucial to certain sentence types as "someone does something to something for someone with some instrument by some method for some reason." (Taylor, 1974, 80). Case grammar makes use of universal semantic sets as basic to the structure of sentences in all languages, and although the definitions of the cases are ambiguous and often difficult to apply to date (c.p. Platt, 1971), it is a model with important implications for a theory of second language learning that attempts to account for second language learners' errors. According to this view of language, adult learners' errors can thus be regarded as illustrating the construction of the syntax of expression and reception, and not the product of the reorganization of the syntax of cognition.

II. THE STUDY OF LANGUAGE SYSTEMS IN CONTACT-BILINGUALISM

The second area of study which forms part of the context for error analysis is the study of language systems in contact. The theory of language that I have just outlined implies that the study of bilingualism in an individual amounts to an account of dual storage/production and reception systems in a single speaker. There is but one language, that is, one set of deep semantic and conceptual sets, with output and input possibilities in two or more speech modes. Syntax is subordinate to meaning. A person engaged as a simultaneous translator working with rapid speech input and output in possibly unrelated languages illustrates that the ultimate role of syntax is to enable the speaker to do away with syntax, to process the message independently from the speech mode in which it is coded. Errors in this process are viewed as the product of production and reception strategies and heuristics.

Studies of monolinguals have likewise demonstrated how syntax is generally subordinate to meaning in the retrieval of information received through language. We remember the message and not the syntax through which it was communicated.

If you are multilingual and live in a community where multilingual film, radio and television are used, it is difficult to recall the language one saw a film or read a news item in. Language is, after all, a system for realizing a complex set of meaning relations - of deep cognitive structures - and because our experience of the world is much larger and more complex than our experience of language, the set of basic meanings from which particular languages are derived must be potentially able to incorporate a much wider range of distinctions than any one language will actually make use of.

Chomsky has pointed out that if speakers of English have a conception of time as a smooth flowing continuum with a past, present and future, it is certainly not acquired from the English language, which marks no such distinction. English marks a past-present distinction, a set of aspects, and a class of modals, one of which can be used to express the future along with a variety of other devices which can perform the same function. Our concept of time in English must hence be acquired independently from the way it is marked in our language, namely from our experience of the world and our culture. Bever observes;

> "..... it does not appear to be impossible to translate basic concepts from one language to another - there is only an occasional difference in the perceived completeness and directness of expression. But if language does not affect thought, why do bilingual speakers feel that the true translation of concepts is impossible? A possible resolution of this puzzle lies in the distinction between two kinds of information contained within each concept shared by members of a culture, semantic meaning and linguistic idea. The linguistic structures of a particular language could determine certain features of the linguistic ideas embedded in concepts, without these features themselves being critical components of the semantic meanings of those concepts" (Bever, 1972, 101)

It is to the nature of these "linguistic ideas" and their relationship to error analysis that we now turn.

III. THE LEARNING OF LINGUISTIC SYSTEMS

The focus of the third dimension to the context for error analysis is on learning, but in considering the learning of a second language (or of a first) we need to distinguish between learning the language code and learning the way the code is used. I will hence distinguish between the learner's attempts to internalize the mechanisms for the generation of the linguistic unit of sentence (as well as other linguistically consistent units of greater or lesser

length than a sentence) and the learner's attempts to use language to regulate behaviour, the appropriate unit of which can be called the utterance (by which I mean language constructed as the performance of some pragmatic goal or function) which will be discussed below.

In focussing on the linguistic unit of sentence we are concerned with the learner's efforts to acquire language specific realizations of universal linguistic categories. A sentence as a linguistic unit is thus the realization in a particular language, through specific syntactic, morphological, and phonological rules, of a limited set of universal linguistic categories. Some of these categories can be listed as (following Wilkins, 1972);

a. time categories such as, point of time, duration. time relations, frequency, sequence, age.

b. expressions of quantity such as grammatical number, numerals, quantifiers and operations.

c. spatial representation such as dimension, location, and motion.

d. grammatical case such as agentive, objective, dative, instrumental, locative, factitive, and benefactive.

e. deixis or features of language relative to the time and place of the speech event, such as person, place, and proximity of the speaker.

The linguist unit of sentence is hence a universal structure realized through language specific rules. The linguistic categories from which the rules derive are a selection from a larger set of possible cognitive relationships, some of which (e.g. Piaget's concept of conservation) are not manifest as linguistic categories.

The goal of linguistics is to specify the basic semantic and grammatical concepts that constitute the unit of sentence in all languages. The emergence of some of these will be related to the learner's timetable of cognitive development, and this fact, together with the internal relationships between the categories themselves is a decisive factor in determining the order of development of syntactic items in child language. It is here that there is a real difference between child and adult learners, but comparison of syntactic development in children and adults should enable us to determine, for particular language items, the degree to which they are pegged to the cognitive timetable. If they are not we will have to look to the psycholinguistic difficulty of the rules themselves.

At this level of analysis, learners' errors thus represent attempts to break down the speech code of the new language into categories that realize the unit of sentence in that language. In both adult and child learners, means of expressing these categories develop before there is full control of the complex range of syntactic devices required for syntactically well formed sentences. For a given linguistic category such as that of time, the learner develops ways of dealing with such distinctions as point of time, duration, sequence, and so on, without necessarily acquiring the full range of devices used to express these categories in the target language (See Bell for evidence of this, where he presents a transcript of an interview with an Indian immigrant, where quite complex linguistic categories are realized in very broken syntax). Adult learner's errors, like children's errors, are generally meaning preserving, and both acquire word order expression of major grammatical categories before the finer details of syntax are mastered. Typical learner sentences are He will going, He go, He going, but not Go he.

When it comes to the surface structure rules of syntax, the shape of the adult learners' sentences is often the predictable result of rule learning strategies, which have been the focus of a great deal of study in recent years. In these studies learner syntax is seen as "a rule governed system, and .... the nature of these rules consists of series of hypotheses concerning the structure of English which the (learner tests).. in actual speech; his utterances are experiments which native speakers may reject or accept and so help him to increase his command of the language". (Bell, 1973, 59). The learning process proceeds via an initial radical simplification of target language rules, through successive complexification of these rules as social pressure creates the need for closer linguistic identity with the target language community. Simplification means that the learner's rules do not account for exceptions, that is, they regularize the grammar of the language, are more general, and hence more efficient (c.p. George, 1972 for detailed illustration).

The effect of these strategies on adult syntax is seen in common errors such as overgeneralizations like make him to do it, failure to retain tense and pronominalization restrictions on word order in complex sentences, producing sentences like I asked him where does she work; in simplification of complementation rules such as he wants that you should go. Some of the characteristics of child language result from the same strategies, as we see in Slobin's list of universal strategies of child language learners (Slobin, 1973). A further strategy common to both adult and child learners is the strategy dictating that new forms first express old functions and new functions are first expressed by old forms (Slobin, 184). Often in adult learners a new form will be first identified with something which has been previously taught, and initially avoided as redundant. Later as the learner becomes more familiar with it, it may replace the earlier taught form completely, until eventually both forms find their proper place in the learner's grammar. McNeill refers to this as linguistic imperialism. How often do teachers complain "This student never uses the past tense", and a month or two later "Now he is putting past tenses in everywhere".

Interference errors can also be viewed as illustration of the principle that an old form (the mother tongue form) can be used to express a new function (a new rule in the target language) and if this is what interference really is - another example of the creative use of a rule and a further illustration of a general strategy common to first and second language learners - the concept of interference can be accepted without relating it specifically to behaviourist learning theory.

Yet we are not yet able to state the precise conditions which lead to the use of a mother tongue rule, a target language rule, or an interlanguage rule constructed by the learner. English speaking adults for example when they speak Malay or Indonesian often show evidence of interference at the level of word order. Their problems with Malay morphology are largely attributable to overgeneralizations and simplification however. (This is not surprising when the grammar of Malay words is considered. A base like kenal (know) can be combined with prefix me to give mengenal; with me and kan to give mengenalkan; with pe and an to give perkenalan; this base can then be combined with me and kan to give memperkenalkan and so on. Foreigners simplify this system in learning it, along lines predictable from Malay grammar, not English grammar. See Djoemadi, 1973). But there are examples of where despite great overlap between the mother tongue and target language both mother tongue and target language rules are ignored. French and English both have an obligatory past tense for example, yet when Frenchmen and Englishmen attempt to speak each other's languages, they often omit the past tense, doubtless because initial teaching builds up fluency in the present tense and it is difficult to abandon what one can already use comfortably, for a new item which can as easily be expressed by an old form.

IV. THE USE OF LINGUISTIC SYSTEMS IN COMMUNICATION

The last area of study which I wish to consider as forming part of the context for error analysis is what I have called "the use of linguistic systems in communication". A number of different perspectives could be included under this title. However here I am not concerned so much with the effect of say, reading or perceptual strategies on the retrieval of information from discourse or text. I am concerned rather with how what we do with language determines the structure of what we say or write. We are concerned here then with the nature of the learner's utterances in contrast with the nature of his sentences which was the focus of Part III above. In other words, what effect does the performance of specific goals in a second language have on the structure of the learner's utterances?

The suggestion that language learning can be considered as the construction of different models of language, has been discussed by Halliday, who uses eight models of language to classify many of the functions for which language is required by the learner. These are (following Halliday):

The instrumental model. This is the model of language which is used to fulfil the learners immediate wants and wishes.

The regulatory model of language, which is used to control the behaviour of others.

The interactional model which is used to relate the self to others and to interact socially with the people around one.

The heuristic model of language which is used to discover and explore the environment.

The imaginative model which is used to create the world of the imagination.

The ritual model is used to mark social class and attitude.

The personal model is the model the learner uses to express his own individuality.

The representational model is the model used to talk about things and to express propositions.

Although not originally intended for application to second language learning, Halliday's concept of language models is a useful one. The second language learner's interlanguage is frequently simplified in many ways in comparison with the target language, in the sense of containing fewer rules for the realization of particular linguistic categories and less vocabulary for given lexical concepts. Another way in which it can be seen to be simplified is in the reduced range of functions to which the second language is used. It may simply never be called upon for imaginative uses; if it is not used as a home language or in informal friendship settings the learner may not be able to manipulate it effectively for social interaction.

Wilkin's proposes a set of what he calls "categories of communicative function" to describe the behavioural goals for which a language may be required. For each of these categories there are appropriate rules as to what constitutes an appropriate utterance in English. For example, the category Modality covers utterances in which the truth value of the content of a proposition is modified and includes the communication of such notions as necessity, conviction, volition, obligation, and tolerance. Moral evaluation and discipline is a category of utterances involving assessment and judgement, and includes approval, disapproval, release and judgement.

Suasion is a category covering utternnces which are designed to influence the behaviour of others, such as persuasion and prediction.

Argument covers the exchange of information and views and deals with seeking and assertion of information, agreement, disagreement, denial and concession.

Rational enquiry and exposition are categories relating to the organization of thought and speech. Wilkins lists implication, hypothesis, verification, conclusion, condition, result, explanation, definition and cause as included in this category.

Personal emotions is a category that covers personal reactions to events, which may be positive or negative.

Emotional relations are expressions of responses to events involving an interlocutor, and include greeting, sympathy, gratitude, flattery and hostility.

Interpersonal relations refers to the selection of forms appropriate to relationship of participants in an event and includes status (formality) and politeness.

In practice of course, such notional or functional categories, may be as difficult to set up as the case categories of Fillmore's grammar, yet they capture a dimension that is often ignored in second-language studies. In analyzing the learner's interlanguage we can often recognize both utterances which are not sentences, and sentences which are not utterances.

Consider the following authentic examples from Singapore. The first was the reply of a shop assistant to a question, and can be regarded as a sentence which does not constitute an utterance:

Hello, how are you today?

Thank you and the same to you.

Conversely the following constitutes an utterance though it is not constituted of sentences.

Delivery Boy: Where you want me put these book.

Office Attendant: I take ah.

At a finer level of analysis we can then classify utterances according to the language models they appear to exemplify. Scientific language for example, is a representational and heuristic model of language, involving categories of rational enquiry and exposition. A learner whose contact with English is largely limited to scientific English may have an entirely deficient interactional or imaginative model of language, as was the case of a Japanese engineer I met in Indonesia, who could recognize a great number of technical terms in the field of textile production and could instruct his Indonesian colleagues on the repair, maintenance and operation of textile machines, but he could hardly sustain a discussion on personal non-business topics which required such categories as sympathy and informality. Many of you will be familiar with the problems of language or verbal tests for minority group children, where the test situation is often regulatory (a white adult in a formal classroom context) yet the data is interpreted as if the child were using an imaginative model of language. The use of a

regulatory tone and intonation may be appropriate for a school teacher, but hardly appropriate for a shop assistant. The learner whose first contacts with a language have been in an interactional mood, via a personal friendship for example, may lack the ritualistic model of language needed for formal conversation with strangers or older people. A common example of this is seen in the use of tu for vous by beginners learning French. The form of Malay in use as a medium of inter-ethnic communication in Singapore and Malaysia is very much influenced by the limitations of interactional and instrumental functions for language use. Non-Malay speakers of this dialect of Malay (Bazaar Malay) are often unable to use Malay in a representational function, that is, for communicating ideas about complex political, philosophical, religious or economic ideas. Much of the effort of language standardization in Southeast Asia is directed at expanding the categories of communicative function for which languages formerly limited to interactional and instrumental functions can be used.

CONCLUSIONS

I have suggested that what has come to be known as error analysis or inter-language analysis, that is, an attempt to determine the nature of second language learning and the second language learner's linguistic competence through analyzing his performance in language, is influenced in its goals and methodology by our understanding of four issues; the nature of language, the nature of language systems in contact, the learning of linguistic systems and the use of linguistic systems in communication, and I have attempted to sketch how a theory of second language learning might account for these. Our knowledge in each of these areas is of course in some instances fragmentary, in others speculative, and always subject to confirmation or rejection by teachers observing the learning process first hand and by the further research of scholars. I believe however that the contribution of error analysis to our further understanding of these issues will profoundly influence our attitude towards the pragmatic problems of second language teaching.

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