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BEHAVIORIST AND RATIONALIST PSYCHOLOGY AND LANGUAGE TEACHING THEORY

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In the recent past, foreign language teachers have felt the need to follow typical linguistic field techniques and a behaviorist inspired teaching theory. This theory consisted of a stimulus-response model with practice and reinforcement playing the leading roles. At the present time psycholinguists are searching for better solutions to the problem of effective foreign language teaching. (Lakoff 69:117-119)

What are the language teachers themselves doing? Rationalist Noam Chomsky's conception of the role that the mind plays in language acquisition and Smith and Miller's (1966) *The Genesis of Language* should be causing foreign language teachers around the world to reexamine their own teaching theories. However, these rationalist ideas haven't had any real influence on actual teaching to date.

After explaining the results of recent experiments on language acquisition, Jerry Fodor states in *Genesis of Language*, "... imitation and reinforcement, the two concepts with which American psychologists have traditionally approached problems about language learning, are simply useless here." (Smith 1966:112) If Fodor is correct, rather drastic changes in underlying teacher theory should be expected - except perhaps in areas where motor skills can be developed through practice (namely pronunciation, intonation, etc.).

*Many ideas and references were borrowed from Robert Krohn, Kenneth Chastain, Danny Steinberg and Ronald Wardhaugh.

Although the foreign language teacher's own pedagogy may be far from the speculative domain of psycholinguistics and language acquisition theories, if the teacher has a clear understanding of the theories of grammar, teaching practice, and language acquisition, he will have the first step in the development of his personal strategy of classroom operation.

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A teacher has to have some understanding of how the language works (i.e., a theory of

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grammar), a general understanding of how a language is learned, as well as a general pedagogical strategy of classroom operation before he can teach. These understandings or theories may be unconscious, but I believe that the more they are made explicit, the better the teacher will be able to assess his own strengths and weaknesses.

In short, given the qualities of rapport and sensitivity, superior teachers can be **created**. Teaching is an art, or a talent perhaps; but as with all talents, when one knows explicitly what he is doing, he should be able to perform even better. (Wardhaugh 70:231) It appears that we may have a better theory of grammar, and with it a superior theory of language acquisition than ever before -- fraught with teaching implications.

In order to understand why I say 'better' and 'superior', a summary of the previous foreign language teaching model in contrast with the newer model will be helpful. The base of the previous 'linguistic method' of language teaching can be found in the work of Leonard Bloomfield. The methods he developed were applied to the famous Army Language Schools, the Language Training Mission of which I was a small part, and the Peace Corps Training Schools. These same methods, redefined by Fries, Brooks, and others, are now found in nearly all language teaching situations around the world. They seem to have great success, compared with the previous grammar-transition model!

It is interesting to note that several years passed before Bloomfield's model was developed into an actual teaching theory, even though it appears to lend itself more directly to classroom application with Chomsky's model. In terms of parallel chronological development, it would appear that the time is ripe (1971) for the development of a Chomskian teaching model.

In analyzing the 'linguistic model' (Bloomfield), it is important to keep in mind that Bloomfield was a behaviorist. He completely rejected rationalism. Listen to the following: "The command of a language is not a matter of knowledge; the speakers are quite unable to describe the **habits which make up their language**. The command of a language is a matter of **practice**," and "... language learning is over-learning; anything else is of no use." (Lado 64:94)

Statements like the foregoing inspired foreign language teachers and set off a

'revolution' in language teaching theory which persists until today. Language acquisition was thought to come through a process of habit formation which is completely consistent with behaviorist principles of learning. With such notions as -- 'speech is primary', 'practice makes perfect', and a stimulus - response + reinforcement learning model -- one can understand why the so-called linguistic model was so easily adaptable to the classroom. All one had to do was to induce behavior in the classroom and overteach it, and out-of-class acumen would develop.

Since language was thus viewed as a non-intellectual, **mechanical activity**, involving a stimulus-response (this was spelled out by Skinner), the student needed only to be drilled through a series of patterns for which correct responses received immediate reinforcement and learning took place! Emphasis on **imitation, pattern drills, mim-mem drills** (the whole audio-lingual approach) is an extension of the Skinnerian model. (Chastian 69:99) In the early stages, meaning is not important in order for the students to develop the desired automatic responses. The plan is to practice to the point of over-learning until the student arrives at an 'automatic, **non-thoughtful**' response. (Spolsky 66:120) (cf Rivers 64:26-38)

The 'linguistic method' revolution has now been challenged by 'counter revolutionaries' who seem to be following a movement developed in the last several years in the field of psychology. This newer psychological learning theory is based on the earlier rationalist school of thought and seems to be supported by recent experimentation and observation (cf Smith 1966).

The theory of generative transformational grammar and the newer theories of psychology both rest on a cognitive neuro-psychological basis for language. There has even been an attempt to characterize the so-called internal 'black box' as a computer complete with input, output tapes, and of course, routing codes or rules. It is as doubtful that the operations of the human mind can be characterized as simply as an electronic computer as it is that these same mind operations can be likened to a rat learning to wind its way successfully through a maze. (Steiner 69:217-236)

This newer grammar theory, with its rationalist extensions, seriously challenges

Skinner's theory (cf Chomsky's criticism of Skinner in Jakobovits 67:142-171). It should give rise to a new breed of language teacher because it characterizes man's language acquisition as something a good deal more complex than other animal behavior and it may provide us with whole new areas of thought regarding teaching methods, curriculum development, textbook designing etc. It should be noted that many of the behaviorist oriented authors outlined excellent teaching techniques in practice, but the rationalist would quarrel with their underlying rationale. (Krohn 70:104-108) In other words, they often did the right things for the wrong reasons.

The main criticism of the behaviorist model of language learning may be characterized by Chomsky's argument that the infinite number of sentences produced by a native speaker simply cannot be accounted for by habits acquired through pattern practice or in any way as a result of SR learning theory. Given a finite amount of time, there is no possible way anyone could learn (by imitation or by practicing patterns) the infinite number of sentences a fluent speaker is able to produce. There simply isn't enough time. Nor could a student ever learn enough patterns to account for the completely novel or infinitely long utterances he is able to make as a fluent speaker.

What does happen, according to the rationalists, is that the student already knows innately how to generalize about languages, and thus discovers for himself the grammar rules for constructing new sentences in the target language. In other words, what the student mostly needs is exposure. (Lakoff 69:122)

Language is not just a motor skill. Psychologist Donald O. Hebb, as early as 1949, claimed that extensive observations had shown that sentence construction could not be explained by a series of conditioned responses. He said, "... there are strong indicators that his (the speaker's) thought processes ... run well ahead of his actual articulations." (Lambert 63:38) So language production appears to require mental activity—not just motor skill development.

Language is not learned by repetition. Many other psychologists now agree, and their experiments clearly show, that repetition plays no significant role in the formation of association (of American

Journal of Psychology, 70:193, 73:73, 74:601 and the *Psychological Review* 67:208). It even appears that continual repetition has a tendency to weaken or even cause a complete lapse of association between sound and meaning. (Lambert 60:377)

Language requires thought. Bernard Spolsky's experience with language teaching shows that, "Knowing a language involves not just the performance of language-like behaviors, but an underlying competence that makes such performance possible. By ignoring this, it has been easy to nurse exaggerated claims for the effectiveness of operant conditioning in second language teaching." (Spolsky 66:123)

Language is not learned by pattern practice, or by imitation. David McNeill doubts the applicability of an SR model to language learning inasmuch as his observations show that the early grammar of a child is not the same as that of an adult and therefore could not be the result of mere imitation. In his opinion children are born with the innate cognitive ability to develop their own grammatical systems. (Smith 66:17-24) Generative transformational linguists maintain that the subtleties of particular languages cannot ever be taught, even by their own GT rules, much less by pattern practice drills.

Language acquisition takes place when these inborn abilities are awakened by a human language environment. (Rudolf Steiner in Stockmyer 69:103) There is no reason to believe that second language learning does not take place in much the same way. Somehow students know how to generalize, deduce, and form intuitions. In short, the student must be encouraged to reason about the operations of the target language. (Lakoff 69:29-130)

Again, these findings should force us to reexamine our previously held notions about the learning process and to look for the admittedly more difficult to find teaching implications of the newer rationalist model. Even Behaviorist Robert Lado has called for additional study into inductive (behaviorist) vs. deductive (rationalist) language learning. (Lado 61:581)

In summary, John B. Carroll — after analyzing a number of language teaching projects underway in the early 50's, all using the behaviorist model — summarized by insisting as follows:

... no method has emerged as clearly the best method, and there seems to be no end to the arguments as to the proper objectives of foreign-language instruction in our schools. (Carroll 53:186)

In other words, after nearly twenty years -- from Bloomfield's linguistic theory up to the 1950's -- no one method could be singled out as the best. Was that because the methods were advanced by linguists and psychologists rather than by language teachers themselves? Perhaps.

In any event, the challenge is clearly upon us in the early 70's as teachers to develop our own materials with justifications and insights from the most advanced thinking of psychology, sociology, anthropology, and of course, linguistics.

My personal challenge to foreign language teachers is to reduce ideas about language teaching to writing (articulate a rationale), justify them from a psychological and a linguistic standpoint, and share them with the rest of us.

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