Form and Meaning in Language Analysis:
Implications for Language Teaching

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Abstract. In spite of the findings of modern linguistic science the consideration of teaching and learning problems has very often dealt with only the formal aspects of the language system. This study, however, hypothesizes that the structure of a particular language is better understood when it is taught in relation to the functions it serves in real communication.

In the introduction a description of the influence of language theories on language teaching methodology has been provided. In the following sections the structure of a linguistic model has been proposed, and the structure of the communication process has been explained with special emphasis on the element of human inference. Later an attempt has been made to establish the relationship between the linguistic model and the language teaching discipline on a scientific basis and to show the significance of this relationship for language teaching.

The tentative conclusion is that language forms can be associated with the functions they serve in communication only through human inference and, consequently, the learner's role in language teaching must be emphasized.

Formalistic Versus Mentalistic Trends

The findings of research in the field of language teaching have lately shown that the impact of language theories on language teaching methodology cannot be over-looked. For instance, back in the seventeenth century the founders of the Port Royal Grammar strongly emphasized the relationship between language and rational thought. Consequently, they viewed language categories as realizations of mental categories. This assumption is very clearly reflected in the traditional definition of the sentence as "a group of words which express a complete thought." Such a view of the nature of language forced traditional grammarians to limit their investigation to the study of the written forms of language which, as they thought, represent the ideal structure of the language system. This position produced what is now called the Grammar Translation Method in the literature.

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On the other hand, structuralist linguists, between the 1930s and the mid 1960s, rejected the traditional thesis and called for the independence of language from mind. They argued that the orientation for the study of language must be the language system itself, and not an entity imposed on it from outside. This theoretical position produced the Audiolingual Approach in language teaching.

The shift in emphasis away from the Grammar Translation Method to the Audiolingual Approach, although initially welcomed, had later come under very strong criticism. Wilga Rivers[1] was certainly correct in observing that in the early 1960s "criticisms were levelled against the Audiolingual Approach. These focused on the overemphasis on tedious mechanistic processes to which the student is not expected to make any spontaneous, personal contribution."

Later, Chomsky[2] explicitly stated that this transformational grammar is, in a sense, a revival of the Universal Grammar of the seventeenth century. Yet he argues that the traditional grammar was too implicit, since it left a large part of the structure of the language system unaccounted for. As a result, Chomsky observed, students studying the grammar of the language had to use their power of inference in order to account for part of the data. According to Chomsky, the transformational model can provide an explicit description of the language structure without having to appeal to the human factor.[3]

This theoretical position, however, was not without consequences. It naturally led to an exclusive reliance on form in the study of language. Thus by cutting the language system away from human experience Chomsky has entirely ruled out communication as an essential function of language.

The Functional Aspect of Language

Due to the growing interest in the communicative function of the language system, Chomsky's position on the significance of communication in linguistic analysis has been criticized by many scholars. Feldman, among many others, has argued that the most essential function of language is communication.[4] Furthermore, in the area of psychology, the influence of Piaget's theory has offset Chomsky's main thesis that the development of linguistic structure is independent of extralinguistic factors.[5] Psycholinguists working within the framework of Piagetian theory, have

(1)   Wilga Rivers, "Psychology, Linguistics, and Language Teaching," *FORUM*, 20, (Nov. 2, 1982), 2-9.
(2)   Noam Chomsky, *Aspects of the Theory of Syntax* (Cambridge, Mass: M.I.T. Press, 1965), pp. 116-17.
(3)   Noam Chomsky, *Reflections on Language* (New York: Pantheon Books, 1975), p. 71.
(4)   Carrol Feldman, "Two Functions of Language," *Harvard Educational Review*, 14 (1980), 282-93.
(5)   Louis Bloom, *Language Development: Form and Function in Emerging Grammars* (Cambridge, Mass: M.I.T. Press, 1970), Ch. 1.

pointed out that their findings in the area of child language acquisition cast doubt on the generativist view that language development is an innate and pre-programed behavior.[6] As a result, research on early language acquisition has lately shifted away from the view that linguistic structures are learned independently of their semantic and pragmatic functions toward a more communicatively based perspective.[7]

The Problem

Upshur[8] has observed that prevailing theories about the nature of language have influenced theories about language learning which in their turn have influenced the methods of language teaching and language testing. Upshur points out that the direction of the influence is usually from linguistic theory to learning theory to teaching methods and eventually to testing. Accordingly language teaching methodology has recently witnessed constant shifts of orientation, especially in the last five decades, due to the new findings of research in linguistics and other related disciplines.

This situation has certainly enriched the field in many significant ways, on the one hand, but created some confusion and uncertainty among language teachers, on the other. For instance, every year teachers find many new textbooks on the market written by authors who emphasize different aspects of language functions and different teaching methodologies. Furthermore, the lack of agreement on a theoretical framework for a language teaching discipline created serious problems in the areas of language testing, preparation of teaching materials, and curriculum development.

Therefore, the problem which this study will address may be stated in the following question: Will a language teaching approach that emphasizes the interaction between linguistic structures and the functions they serve in communication account for the various psychological and sociological aspects underlying the task of language teaching? In fact, this general question resolves itself into the following more specific questions:

1. What are the factors involved in verbal or written communication?
2. How do these factors interact in order to convey messages?
3. Is a distinction between meanings and messages necessary for an understanding of this interaction?
4. How does an understanding of this interaction affect language teaching?

(6)   Louis Bloom, *One Word at a Time* (The Hague, Paris: Mouton, 1975), pp. 13-31.
(7)   Dan Slobin, *Psycholinguistics* (Glenview, Illinois: Scott, Foresman and Co., 1974), pp. 33.
(8)   John Upshur, "Productive Communication Testing: A Process Report," in *Selected Papers of the Second International Congress of Applied Linguistics*, ed. G.E. Perren and J.L.M. Trim (Cambridge: Cambridge University Press, 1971), p. 435.

Thus, in the following part of this study an attempt will first be made at establishing the relationship between the disciplines of linguistics and language teaching on scientific basis. Second, it will be argued that the recent shift of orientation in linguistic theory has not yet been, generally speaking, matched by a similar shift of focus in language teaching methodology.

The Hypothesis

This study hypothesizes that a linguistic model which accounts for human inference in the process of communication and which emphasizes both form and meaning as basic categories of the language system does provide an adequate basis for language teaching.

The Structure of Linguistic Discipline

A basic assumption underlying this study is that the language teaching process can be effective only if it has a scientific basis. From the point of view of educational experience teaching language can only be said to have a scientific basis if, in addition to making generalizations from pedagogics and psychological laws, it has as its foundation the data from language theory. Thus a major part of this study is devoted to clarifying the problem of precisely how the data from linguistic theory could be utilized in the teaching and learning of languages.

In this section, however, the structure of a linguistic model will be presented. This model is based on William Diver's theory as explained by Kirsner.[9] According to Diver any scientific discipline must contain three main parts: orientation, hypothesis, and observations. For the purposes of this study three elements will be included in the orientation of the linguistic model, namely, communicative factors, human inference, and perceptual strategies. The communicative factor guarantees that only the forms which convey meanings will be considered. In the hypothesis part signals and meanings will be included; and the observations part contains only sounds. Accordingly, the relationships between the three parts of the linguistic discipline can be illustrated as in Fig. 1.

Thus, accepting this proposed model of the communicative act, the process of verbal or written interaction may be conceived of as proceeding in the following order:

1. The conceptual structure of the message is transmitted to the perceptual strategies.

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(9)   R. Kirsner, "The Theory," in *Working Papers in Linguistics*, Columbia University (1977), pp. 21-57.

The Structure of Linguistic
Discipline

Structure of Scientific
Discipline
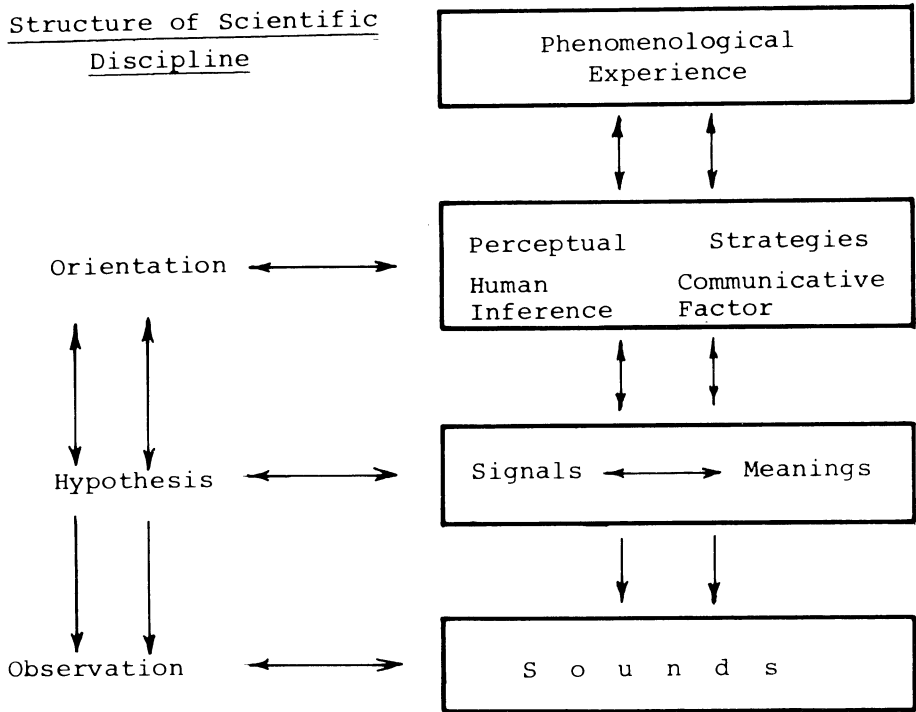
2. The communicative and the human factors select the appropriate signals which carry the required meanings.

3. The signals are realized by sounds or letters, depending on the medium of communication used.

4. In the process of decoding messages the listener or reader has only to reverse the order of events.

Signals and Meanings

Bolinger has observed that the primary condition of every signaling system is contrast. In language this condition manifests itself most strikingly in phonology. Yet it also demonstrates its presence on higher levels of language structure.[10] In the area of phonology, as Saussure points out, the auditory impressions of sounds provide the

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(10) Dwight Bolinger, "The Jingle Theory of Double-ing," in *Function and Context in Linguistic Analysis*, ed. D. Allerton et al. (Cambridge: Cambridge University Press, 1979), p. 41.

basis for a phonological theory. According to this view, auditory images precede and to a certain extent determine the identity of the phonological units. Consequently, each sound is characterized by a *unity of impression* and *form*. Saussure takes this hypothesis as a natural point of departure not only for the study of phonology, but for the study of higher levels of language structure as well.

Accordingly, Saussure takes the *sign* in its broadest sense as the basic unit of language study. Thus, the sign could be a morpheme, a word, a phrase, a sentence, or even a discourse: it represents a unit of form (signifiant) and a meaning (signified). In this study the terms *signal* and *meaning* will be used to represent the terms of *signifiant* and *signified*, respectively. It must also be emphasized that although the meaning determines the signal, as observed by Saussure, there can be no meanings without signals, and vice versa.

The Chain of Communication: Signals, Meanings and Messages

Kirsner and Thompson[11] have defined the message as a totality of what is inferred from the use of signals in a given utterance in a particular context. Consequently, the message communicated is necessarily richer than the meanings in the utterance. Therefore, human inference is necessary for the interpretation of the message. Furthermore, there is a sort of trade-off relationship between the human inference and the number of meanings used in conveying the message. Thus, the less the number of meanings used in the utterance is, the more will be left for the listener or reader to infer. It is worth noting right at the outset that languages may differ on the strategies they use in conveying messages. For instance, some languages invest more meanings in an utterance in order to allow the listener to interpret the message; whereas others may use less meanings and have a lot for the listener to infer. Here are some examples from English and Arabic which illustrate this point:

(a)	they	wrote		your	name		(English)
	(1)	(2-3)		(4)	(5)		

(b)	hunaa	katab-na	ism	-a-	ki	(Arabic)
	(1-2)	(3-4-5)	(6)	(7)	(8-9)	

	they-	write-		name	acc. your	ism	a
	fem	past-			fem	(6)	(7)
		fem					

In sentence (a) above, five meanings are used in conveying the message. Yet the data in sentence (b) show that Arabic uses more meanings in conveying the same

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(11) R. Kirsner and S. Thompson, "The Role of Pragmatic Inference in Semantics: A Study of Verb Complements in English," *GLOSSA*, 10, No. 2 (1977), 200-24.

message than does English. Consequently, less is left for the listener to infer in the interpretation of messages. Thus, according to this view, the chain of communication can be schematized as in Fig. 2.
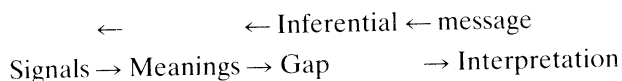
$$\begin{array}{cc} \leftarrow & \leftarrow \text{Inferential} \leftarrow \text{message} \\ \text{Signals} \rightarrow \text{Meanings} \rightarrow \text{Gap} & \rightarrow \text{Interpretation} \end{array}$$

Fig. 2

However, it must be made clear right at this point that such factors as familiarity of the participants in the communicative act with the context and the degree of their shared knowledge will facilitate human inference, and thus fewer meanings will be needed to carry the message.

This view of meaning contradicts with the structuralist's thesis based on the behaviorist theory in psychology. For instance Bloomfield[12] defined the meaning of a linguistic form as the situation in which the speaker utters it, and the response it calls forth in the listener. Thus, according to Bloomfield, the process of communication can be schematized as in Fig. 3.
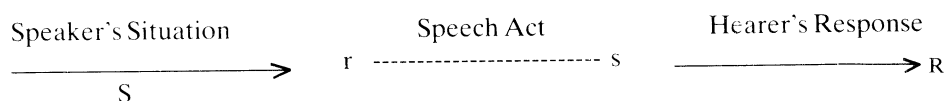
Speaker's Situation	Speech Act	Hearer's Response
$\xrightarrow{\hspace{2cm}}$ S	r ------------------------ s	$\xrightarrow{\hspace{2cm}}$ R

Fig. 3

Therefore, in Bloomfield's view, the meaning of the utterance (r ------ s) can be accounted for in terms of the physical behavior of the speaker and the listener. This definition, as one can see, totally ignores the inferential processes that are always involved in the association of meanings with linguistic utterances.

In this study, however, the point will be made that as language teachers, we must not be primarily concerned with the meaning of the signal itself, but rather with how it interacts with other signals in the utterance, on the one hand, and with the listener's or reader's experience, on the other.

$$S = \text{stimulus} \qquad R = \text{response}$$

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(12) Leonard Bloomfield, *Language* (New York: Holt and Company, 1933), p. 139.
(13) D. Wunderlich, *Foundations of Linguistics* (Cambridge: Cambridge University Press, 1979), pp. 195-96.

Wunderlich[13] has rightly observed that there are two main variants to the concept of meaning. First, there is the extralinguistic meaning of the linguistic expression, as viewed in referential semantics, which emphasizes the relationship of linguistic expressions to concepts, events, and objects in our experience. In the history of semantics, this concept of meaning is associated with Fregean Logical semantics. Second, there is the view of the meaning of linguistic expressions as used in communication. According to this view what the utterance means to the speaker and listener in relation to the background of their social situation is fundamental. This concept of meaning has been developed by philosophers of language such as Morris, Grice, and Wittgenstein. Most recently, this view has been emphasized by John Searle in his Speech Act theory.[14]

Now since this controversy reflects on the criterion used for judging the well-formedness of the sentence, the solution of this problem will have theoretical significance not only for linguistics, but for language teaching as well. To put it the other way, teaching only the signals in a particular language in isolation from the messages they are intended to convey is not a gurantee of the mastery of language use.

The Linguistic Discipline Versus the Language Teaching Discipline

In their preface to the fourth volume of *The Edinburgh Course in Applied Linguistics* J.B. Allen and Alan Davis (1977) have explicitly observed that for applied linguistics to the more than a set of anecdotes and subjective impressions it needs the support of the scientific method. Applied linguistics, Allen and Davis observed, must allow its claims and procedures to be challenged by making them falsifiable.[15] Thus, following Allen and Davis, an attempt will be made in this study to establish the relationship between the disciplines of linguistics and language teaching through the structure of the scientific disciplines, as shown in Fig. 4 in the following discussion. Wardaugh (1972) has indicated that much of what is discussed under language teaching may turn out to be a discussion of linguistics or psychology. Accordingly, a working knowledge of these two disciplines is necessary if teachers want to be creative in their profession.[16]

Similarly, Edward Anthony (1972) has argued that language teaching specialists sometimes talk about such concepts as *approach, method,* and *technique* in rather vague terms. He points out that in order for these concepts to make sense they must be viewed within the context of a certain theoretical framework.
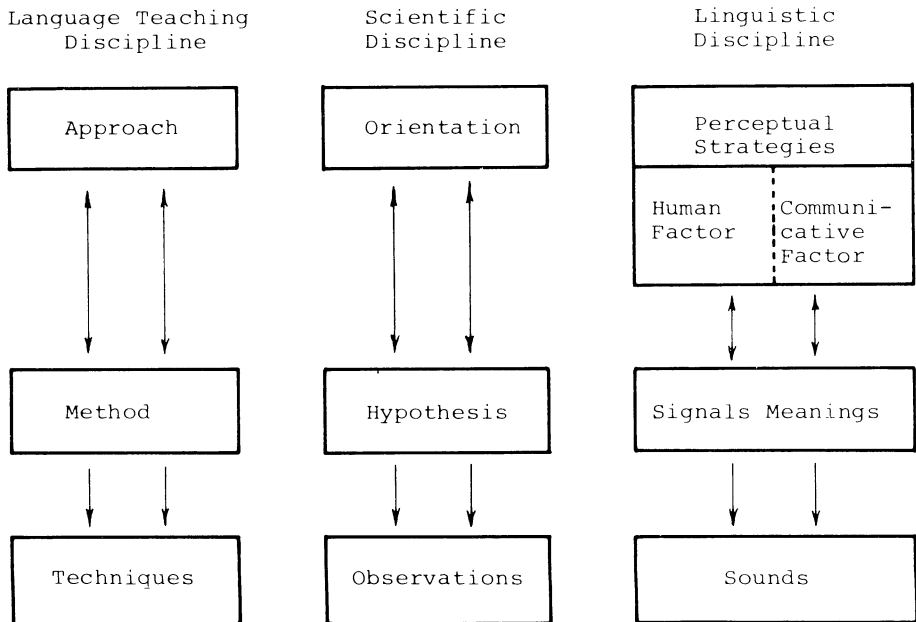
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(14) John Searle, *Speech Acts: An Essay on the Philosophy of Language* (Cambridge: Cambridge University Press, 1969), pp. 43-44.
(15) J.P.B. Allen and Alan Davies, *The Edinburgh Course in Applied Linguistics,* Vol. 4 (London: Oxford University Press, 1977), p. ix.
(16) R. Wardhough, "Current Problems and Classroom Practices," in *Teaching English as a Second Language,* ed. A. Allen and R. Campbell (New York: McGraw-Hill, 1972), p. 16.

In the following discussion it will be demonstrated that the analogy between the structure of the language teaching discipline as originally outlined by Anthony (1972) and the structure of the linguistic discipline proposed in this study suggests that the two disciplines go hand in hand. For instance in the linguistic model the orientation controls the hypothesis or grammar and, therefore, no part of the latter may conflict with the former. By the same token, Anthony has pointed out that in language teaching the approach controls the method and, therefore, no part of the method may contradict with any of the axioms which constitute the approach. On the other hand, in the linguistic discipline the function of the hypothesis is to relate the observable data to the orientation. Similarly, in language teaching, the function of the method is to relate the observable classroom practices to the approach. Thus the correlation between the parts of the three disciplines can be schematized as in Fig. 4.

Correlations between Language Teaching
Discipline, Scientific Discipline
and Linguistic Discipline

Language Teaching Discipline	Scientific Discipline	Linguistic Discipline
Approach	Orientation	Perceptual Strategies / Human Factor : Communicative Factor
↕ ↕	↕ ↕	↕ ↕
Method	Hypothesis	Signals Meanings
↓ ↓	↓ ↓	↓ ↓
Techniques	Observations	Sounds

Anthony[17] has explicitly indicated that the method grows out of the approach, and that the approach gets its validation from the method; hence the bidirectionality of the arrows in the diagram (Fig. 4).

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(17) Edward Anthony, "Approach, Method, and Teachnique," in *Teaching English as a Second Language*, ed. H. Allen and R. Campbell (New York: McGraw-Hill, 1972), pp. 6-7.

However, in the case of the relationship between the method and the technique, the situation is completely different. For instance the method can impose structure and order on the technique but not the reverse. In the same manner, in the linguistic model, the hypothesis imposes structure and order on the sound in terms of signals and meanings; but it would be meaningless to say that the sounds can impose structure on the hypothesis.

In fact the interrelationship between the approach and the method has lately been discussed by Richards and Rodgers.[18] In order to account for the interlock between approach and method the authors suggested that the language teaching discipline must be characterized in terms of only two categories: design and procedure. Richards and Rodgers are probably right in observing that Anthony did not accurately specify the nature of the relationship between the approach and the method. According to them, the relationship between these two categories of the discipline can be determined only by a third category which they called design. Consequently, the language teaching discipline, as viewed by Richards and Rodgers, can be schematized as in Fig. 5.

The Structure of the Language Teaching
Discipline as Characterized
by Richards and Rodgers
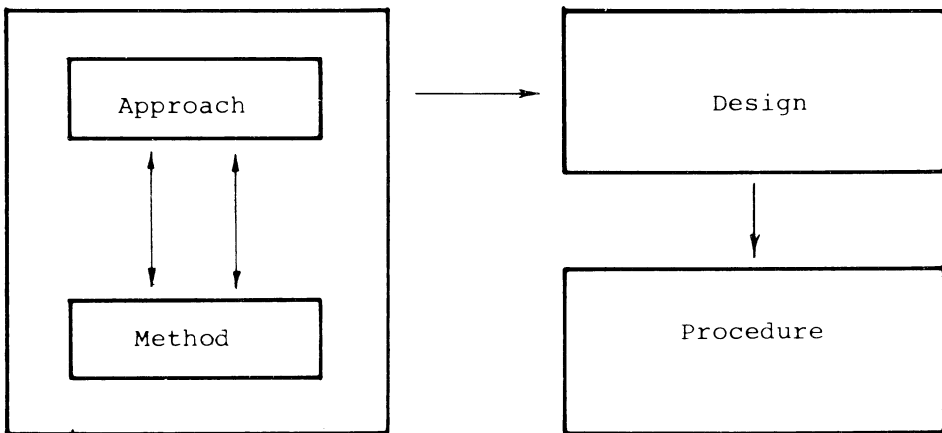
Implications for Language Teaching

In the foregoing discussion it has been shown how the traditional theory emphasized the fit between the structure of language and the structure of rational thought, i.e. between the hypothesis and the orientation. The consequence of this

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(18) Jack Richards and T. Rodgers, *Approaches and Methods*, in *Language Teaching* (Cambridge: Cambridge University Press, 1986), pp. 28-29.

theoretical position was that teaching a language was equated with the teaching of its grammar whose categories were believed to be manifestations of rational thought. Such concepts of language and language teaching naturally led to the assumption that knowledge of the rule would naturally lead to its application in real communication.[19]

By contrast, American structuralists in consonance with the behaviorist theory viewed language as a set of observable habits and language learning as the process of habit formation. This situation naturally led to emphasizing the fit between the hypothesis and the observations. In other words, language learning is basically *mechanical* and, consequently, it can be best accomplished by the use of the language laboratory, mimicry-memorization techniques and pattern-practice drills.[20]

However, unlike the traditional theory which emphasized the relationship between the orientation and the hypothesis, or the structuralist theory which emphasized the relationship between the hypothesis and the observations, the linguistic discipline proposed in this study emphasizes the significance of each of the three parts of the scientific discipline. It has been argued that if the language teaching profession is to make meaningful progress and develop into a distinct discipline, the relationships holding between the concepts of *approach, method,* and *technique* must simulate the relationships holding between the three parts which constitute the structure of the scientific discipline, namely, orientation, hypothesis, and observations.

It is only at this level that teachers can give enlightened views and accurate decisions on basic issues such as selection, gradation, presentation of materials, and the roles of teachers and learners in language teaching.

Secondly, the position adopted in this study that meaning is a category of the language system and not a category of the message, as viewed by traditional theory, will be very helpful in clarifying some of the ambiguities concerning the functioning of the communication process, on the one hand, and in avoiding many unnecessary problems in the teaching of vocabulary, on the other. Thus, according to this study, utterances cannot be said to have meanings by themselves. Instead, their meanings depend essentially upon the contexts in which they are used as well as upon the user's experience of the world. This view is advocated by general semanticists such as Chase[21] (1954) and Chafe[22] (1970), among many others. For instance, back in

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(19) W.F. Mackey, *Language Teaching Analysis* (Bloomington: W.F. Mackey, 1965), p. 153.

(20) John Carroll, "The Contributions of Psychological Theory and Educational Research to the Teaching of Foreign Languages," in *Trends in Language Teaching,* ed. A. Valdman (New York: McGraw Hill, 1966), p. 101.

(21) S. Chase, *Power of Words* (New York: Harcourt, 1954), ch. 2.

(22) Wallace Chafe, *Meaning and the Structure of Language* (Chicago: University of Chicago, 1970), ch. 1.; Wallace Chafe, "Givenness, Contrastiveness, Definiteness, Subjects, Topics, and Point of View," in *Subject and Topic,* ed. Charles N. Li (New York: Academic Press, 1976), pp. 29-31.

(1968) Haas has argued that one cannot understand the concept of *yellow* merely by being presented with a sample of yellow objects, since the sample itself does not tell us where to draw the line between *yellow* and the related colors.[23]

Thirdly, the communicatively based approach presented in this study agrees in its general perspective with the interesting points stressed by Marina Burt in the area of error analysis. Burt (1975) has indicated that learners are expected to make *local* errors; but these errors should not be emphasized, since they do not affect communication. Thus, limiting the number of corrections to *global* errors, which affect the communication of message, gives the learner a strong sense of achievement. These findings, Burt observes, could be used in the sequencing of teaching materials, classroom teaching, and in testing techniques.[24]

Fourth, Oller (1979) has pointed out that language programs that use contextualized and meaningful teaching materials necessarily optimize the learner's ability to use his experience in the pragmatic mapping of utterances in the target language onto extralinguistic contexts.[25]

As a corollary of this view, however, tests must not only attempt to evaluate the learner's ability to comprehend, store, and recall temporal sequences of linguistic elements; they must attempt to evaluate the learner's understanding of the pragmatic interrelationships of linguistic and extralinguistic contexts as well.

Finally, and perhaps most importantly, it has been assumed that language forms can be associated with messages only through human inference. Thus, contrary to the formalistic trends in language teaching, the approach adopted in this study emphasizes the role of the learner in the teaching-learning processes. This position conflicts with the common practices still being followed in many schools where teachers often ignore the direct experience of the target language and focus instead on the formal combinations of sounds and grammatical norms. In other words we often fail to have a direct experience of the language in its capacity as a real means of living human communication.

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(23) William Haas, "The Theory of Translation," in *The Theory of Meaning,* ed. G.H. Parkinson (Oxford: Oxford University Press, 1968), p. 100.

(24) Marina Burt, "Error Analysis in the Adult EFL Classroom," *TESOL Quarterly,* 9 (1975), pp. 53-65.

(25) John Oller, Jr. *Language Tests at School* (London: Longman, 1979), pp. 31-32.

الشكل والمعنى في التحليل اللغوي : تأثيره في مجال تدريس اللغة

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ملخص البحث. على الرغم من التقدم الكبير الذي حصل في ميدان البحث العلمي الخاص بعلوم اللغة فإن عملية التعليم والتعلم مازالت ترتكز على الجوانب الشكلية للغة . ومن هذا المنطلق ، فإن هذه الدراسة تفترض أن التراكيب اللغوية يمكن أن يفهمها الطالب بصورة أفضل إذا تحول المدرس من التركيز على التعابير اللغوية إلى التركيز على الأغراض التي تؤديها هذه التعابير في عملية التخاطب والتفاهم.

ففي مقدمة هذا البحث جرى استعراض تأثير النظريات اللغوية على طرق تدريس اللغة ، وفي الأجزاء اللاحقة من هذا البحث وضع تصور لنموذج لغوي متوافر فيه بعض الخواص المعنية ، كما جرى شرح عملية التخاطب بالتركيز على الجانب الإنساني فيها ، وبعد ذلك كانت هناك محاولة للربط بين النموذج اللغوي المقترح وبين نظام تعليمي قائم على أسس علمية وذلك لإثبات أهمية هذه العلاقة في عملية تعليم اللغة .

وفي الختام ينتهي البحث إلى أن التعابير اللغوية لايمكن ربطها بالأغراض التي تؤديها في عملية التفاهم بمعزل عن التجربة الإنسانية للأفراد الذين يستعملون اللغة .

وبناء على ذلك فإن الاهتمام في عملية تعليم اللغات يجب أن يرتكز على المتعلم وليس على المعلم كما هو الحال في معظم أنحاء بلادنا .