FOUR NEW DIRECTIONS IN FOREIGN LANGUAGE TEACHING REFLECT THE IMPORTANCE OF USING INSIGHTS FROM OTHER DISCIPLINES TO STIMULATE NEW APPROACHES TO OLD PROBLEMS. FIRST, FOREIGN LANGUAGE TEACHING MATERIALS AND METHODS MUST BE BASED ON ACCURATE DESCRIPTIONS AND CROSS-CULTURAL COMPARISONS OF THE SYSTEMS OF COMMUNICATIVE SIGNALS WHICH PEOPLE PRODUCE AND RESPOND TO IN NATIVE AND FOREIGN CULTURES. THIS INCLUDES COMPARISONS NOT ONLY IN TERMS OF THE POINTS OF CONFLICT BETWEEN TWO LANGUAGES, BUT POINTS OF CONFLICT BETWEEN SUCH DIFFERENT MEANS OF COMMUNICATION WITHIN THE LANGUAGE AS THE WRITTEN AND THE SPOKEN STYLE. A SECOND DIRECTION, IN WHICH THE AUTHOR STRESSES THE NEED FOR INTENSIFIED AURAL EXPERIENCE FOR THE BEGINNING STUDENT, IS THE EVENTUAL INTEGRATION OF THE RESULTS OF STUDIES OF HUMAN BEHAVIOR WITH OTHER PSYCHOLINGUISTIC STUDIES. THE THIRD AND FOURTH NEW DIRECTIONS INVOLVE TAKING THE VAST TECHNICAL RESOURCES AT OUR DISPOSAL, FROM PROGRAMED INSTRUCTION TO IMMENSE ELECTRO-MECHANICAL EQUIPMENT, AND PUTTING THEM TO WORK IN THE EFFORT TO SOLVE A VARIETY OF LEARNING PROBLEMS. THIS ARTICLE IS A REPRINT FROM "THE MODERN LANGUAGE JOURNAL," VOLUME 49, NUMBER 5, MAY 1965, PAGES 281-293. (AF)
THE TITLE originally suggested for this paper was "New Developments in Foreign Language Teaching." I should like to discuss new directions rather than new developments, the latter term being so specific as to imply fresh panaceas ready and waiting to cure all ills if the enlightened word can but be spread. I have chosen four such directions, all of which are intimately related to our chief concern at this conference, the teaching of what live people do when they talk, when they read, and when they write, now and in the past, in daily interaction as well as in moments of great inspiration. It will not be surprising, therefore, if the directions of which we speak should spring from a view of language as human behavior, as something people do. This human behavior which is language takes place in a setting of interactions among human beings. We shall first enumerate each of the four directions, and then have something to say about each one in turn.

The first of these new directions is this: foreign language teaching materials and methods through which one is to learn to participate in cross-cultural interactions must come to be based on accurate descriptions and comparisons of the systems of communicative signals which human beings produce and respond to in both native and foreign cultures, including the separate but related systems which underlie what is written on paper. Naturally, we shall not be teaching the descriptions and comparisons themselves, except to prospective linguists and language teachers. For in the classroom we are interested only in inducing in the learner habits of listening and speaking, reading and writing, by whatever methods we are able to achieve this result. But we must know what habits to induce, and thus far, scientific descriptions and comparisons seem to be the most promising sources of information on which to base the substance, not the method, of our teaching materials. The scholarly discipline which has been most productive in this area of description and comparison is the field of descriptive linguistics.

Scholars who engage in this kind of descriptive and comparative activity acknowledge that there are speakers and hearers in any human interaction, but do not worry much about what goes on inside their heads, or about effects on the partner in any such exchange. They seek the code by which messages are transmitted, so to speak. This descriptive concern, however, by no means implies that the mechanisms by which speakers and hearers produce and respond to the signals of the code, by which they learn to do so, and the effects of both code and message on the receiver, are not worthy of study. A virtual revolution is going on in the disciplines concerned with those aspects of human verbal behavior.

*This paper was delivered in substantially abbreviated form as a public lecture at the International Conference on Modern Foreign Language Teaching, Berlin, August 31-September 5, 1964.
The eventual integration of the results of these and other psycholinguistic studies is the second of our four directions.

The third direction is in a sense part of the second, but has received sufficient scholarly and public attention that it merits separate treatment. This is the area known as programmed instruction, with its microscopically close examination of what it is we wish our students to learn, its careful construction of learning sequences such that the student can proceed at his own pace always knowing whether he was right or wrong, and its powerful implications for self-instruction.

The fourth and last of our four directions is the selective integration into our instructional methods of the vast electro-mechanical resources which are now available to serve the whole field of education.

It will obviously be impossible to discuss all four of these directions in great detail in a single paper. Books can be written about each of them. I have, therefore, chosen to discuss the first of the four directions in some detail, and to limit my subsequent remarks to consideration of certain limited aspects of each of the others.

Let us now turn to the first of our new directions in foreign language teaching, the direction which has been the primary concern of descriptive linguists. Much has been written on the subject. It is often said that what we teach, or better, the habits which the student must acquire, should derive from an analysis first of the spoken, then of the written language, an analysis which is in accord with accepted principles of modern descriptive linguistics, and that further, the resulting descriptions should then be compared point by point with a similarly derived analysis of the language of the learner. Such a “contrastive analysis” should then yield points of conflict or mismatch between the two languages. Such mismatch may be observed in phonology, in morphology, and in syntax. These areas of mismatch will become the central points that practical language instruction must emphasize. The importance of this requirement is just beginning to find acceptance among teachers in the United States. Formal steps in this direction, admittedly tentative and exploratory, have been taken at the Center for Applied Linguistics in Washington, D.C., which has been preparing contrastive analyses of the sounds and forms of English, on the one hand, and those of French, German, Italian, Spanish, and Russian on the other. The German and Spanish analyses have already been published; the others are due to appear soon.

The scientific linguist is fully aware of the complexity of the interlocking networks of signals according to which people interact in any culture. Yet linguists have themselves had to select some norm for the purposes of description and comparison. Even though their concern is with language as it is actually spoken, the norms selected for comparison inevitably represent a compromise usually described as the “informal speech of educated people,” where the cultures of developed countries are concerned. This probably is as it should be, especially if materials based on these analyses are to be used in the beginning stages of foreign language instruction.

As instruction proceeds to more advanced levels, however, we may have to be more and more concerned with realizations rather than abstractions, with parole rather than langue. One thing our concern with normalization has accomplished for certain is to conceal from student and teacher alike the gulf which separates these descriptive norms from what actually happens.

I shall try now to present some idea of the unbelievable complexity of actual, live human interaction. In describing this complexity, we shall leave aside for the moment how much of it should be overtly taught, and return to this problem later. Let us simply assume that it is important for the foreign language teacher to know about these things, to have brought them into his conscious awareness. They should not continue to lurk beneath the surface like ghosts or rattling skeletons which are not supposed to be discussed by nice people.

As educated people most of us accept a literary model of social interaction.¹ In the novel,
and even more clearly in the drama, we find individuals who speak politely in turn. We then behave as if we supposed that most people speak in complete sentences and, further, that they are listening to what we say most of the time. One day in the average home or office, or better still a day of listening to informal discussion at an international conference on foreign language teaching, reveals how far removed from reality such a conception is. It is a startling experience to listen to a tape recording of one's own informal remarks. We hesitate, we back up, start again, change grammatical constructions in the middle of the sentence; all of this without disturbing our listeners very much, who are somehow equipped to "edit" our remarks, a process which is not well understood. The same literary conception of social interaction leads us to behave as if we believed that the prime function of communication was to pass new information from one person to another. Although this kind of activity is certainly important, it is probably no more so than linguistic behavior which serves, as it were, to keep the interaction going, to regulate it, to make it understandable in the particular context, i.e., what the American scholar Birdwhistell has called the "integrational" aspect of communication. And indeed, as Birdwhistell has pointed out, it is difficult to determine which aspect of the total network of signals is most important, if any.

Part of the signal material in any human interaction will be language. The signal material of spoken language consists of what the linguist calls phonemes, those classes of sound which contrast and can thus be the bearers of differences in meaning though they themselves are meaningless; of morphemes, the smallest recurrent stretches of phonemes which have meaning; and constructions marked not only by arrangements of morphemes but by sequences of pitch, stress and certain terminal characteristics, usually called intonation patterns or contours. Phonemes, morphemes and constructions are the carriers of meaning, although by no means necessarily in that sequence. Recent analytical efforts of linguists describe not only this kind of signal material, characterized in general by the discrete, all-or-none, digital nature of its units (a phoneme or a morpheme either is or is not; they are never "almost," "not quite," or "more or less"), but other signal material whose essential nature does seem to be "more or less," continuous, gradient, i.e. describable only as degrees on a scale. This continuous, gradient material is now called by some linguists paralanguage. The paralinguistic system describes what may roughly be called "tone of voice" signals, excluding intonation contours, which are described within the linguistic system. These are the signals which can make us react with the comment "It's not what he said, but how he said it." Thus far, paralinguistic analysis has isolated various voice qualities such as pitch range, which may be spread upward or downward or narrowed from above or below; vocal lip control, which ranges from heavy rasp to various degrees of openness; and tempo, which may be increased or decreased from a norm. There are various kinds of vocalizations, such as vocal characterizers like laughing, crying, yelling, whispering; vocal segregates such as [ ɔːʂ ] and [ ɔː ɪ ]; and vocal qualifiers such as intensity with a range from oversoft to overloud, pitch height from overlow to overhigh and extent from clipping to drawl.*

Thus far, we have spoken only of signal material which can be heard. There is also signal material which must be seen. People move, and the motions of their faces and bodies are communicative signals usually operating more or less out of awareness. These signals are patterned and describable. The study of patterned body motion as communication has come to be called kinesics.

Kinesics is still but an infant science, yet it is quite clear that there is urgent need for systematic descriptions and cross-cultural comparisons of kinesic behavior because people move differently in different cultures. Progress in this field is attributable largely to the work of one man, the American scholar, Ray L. Birdwhistell, whom we have already had occasion to mention. He has based his exploratory investigations on a linguistic model and everywhere used the principle of contrast to isolate tentative analytical units. I realize that it is quite impossible to understand unfamiliar terminology without leisurely and thorough study, and I include a few definitions here only to give you an idea of the nature of kinesic analysis: Thus, Birdwhistell

*Often written uh-huh (yes), uh-uh (no).

has arrived at the kine, the smallest unit of perceivable action, analogous to phone; the kineme, a range of kines which may be substituted for each other without changing the general interactional sequence, analogous to phoneme; the allophone; the kinemorph, a complex of abstract motion particles from more than one body area, analogous to morph; the kinemorpheme, a class of mutually substitutable kinemorphs, analogous to allomorph; and the allokinemorph, a member of a kinemorpheme, analogous to allomorph. Birdwhistell has devised a minutely detailed recording system which uses a notation whose symbols roughly approximate body parts; this he calls microkinesic recording. From this he has abstracted a system which has been devised for the typewriter; this is called macrokinesic recording. A description in technical language derived from microkinesic and macrokinesic recordings is called a kinemic description.

The study of "gestures" is, of course, nothing new. Kinesics includes the study of gestures, but only as certain stereotyped aspects which are often a clear substitute for linguistic behavior, e.g. pointing, nodding, shaking the head, waving the hand, and bowing. Birdwhistell has this to say about the relationship between gestures and kinesics:

What we popularly call gestures . . . are revealed by analysis to be specially bound kinemorphs which cannot appear in isolation as a complete action. That is, gestures are like stem forms in language [like the geh- of gehen or the bind- of binden], in that they are always bound up in a more complex package, an analysis of which must be completed before the "social meaning" of the complex can be assessed. Just as we have built dictionaries of the "meanings" of words, we have heretofore acted as if the gesture had a meaning in and of itself. Such preconceptions as these have interfered with our understanding of the communication process.

We must, therefore, beware of the notion that gestures out of context may be said to have meaning. The "meaning" of a gesture must be viewed contextually in two senses: the situational context within a given cultural or subcultural setting, and the context provided by the linguistic, paralinguistic, kinesic, and possibly other as yet unanalyzed signal material which may or may not be present. Countless examples could be given but one will have to suffice. We are not concerned here with the fact that the protruded tongue may "mean" different things in different cultures, that it means, for example, polite deference in Tibet and something rather different in most western societies. Let us consider the effect of context on the "meaning" of the slightly protruded tongue. In North America in one context, i.e. taken together with other signal material which is present at the same time, it may be a signal of extreme concentration, especially among young children. Given other contextual signal material it may indicate mild pique, common enough as a playful gesture of adult women. Among effeminate or homosexual males it may indicate anything from the same mild pique to outright assignation. If we assume, however, that the context will be as carefully described as the gesture, language teachers could certainly use cross-cultural gesture comparisons, systematically arranged. Such material as exists is widely scattered and virtually unavailable to the language teacher. Even though such lists may miss the point of Birdwhistell's approach, they would fill a keenly felt need and could eventually be accorded their place in the total communication picture as the new science of kinesics comes to offer a suitable framework in the form of cross-cultural kinesic analyses. The fullest collection of material on kinesics is the volume already cited: The Natural History of an Interview.

We have noted that the total communications event may contain linguistic, paralinguistic, and kinesic material. It is quite clear that messages are transmitted through still other modalities, including those of touch, of taste and of smell. At a conference on paralinguistics and kinesics sponsored by the United States Office of Education and held at Indiana University in early 1962, Margaret Mead suggested redefining the term "semiotics" to mean the science which would formulate the theoretical bases of total sensory communication in human cultures. The proceedings of that conference have recently appeared as Approaches to Semiotics (see footnote 2). Language teachers may be interested in my own article in that collection: "Paralinguistics and Kinesics: Pedagogical Perspectives," on which some of the present discussion is based.

*Norman A. McQuown (editor), The Natural History of an Interview, New York: Grune and Stratton, in press, chapter 4.
Thus far, still pursuing as I am the first of the directions outlined at the beginning of this paper, it has been my intention to give you some idea of the complexities of the signal material which is present when human beings interact in any culture. We may, henceforth, refer to the whole range of sensory signal material as "semiotic" material, and to the particular complex of signal material which has meaning at any given instant in the course of such interaction as a "signal syndrome." We continue to leave open the extent to which those elements of signal syndromes which are not purely linguistic may eventually need to be overtly taught.

Let us now turn to other purely linguistic aspects of any human interaction which still sorely need systematic description. The speech of any individual will be colored by phonetic, lexical and sometimes grammatical markers of the particular region from which he comes. Much distinguished work has, of course, been done in the field of dialect geography. Within any particular geographical area the individual's speech will show characteristics which mark it as conforming to a greater or lesser degree to some arbitrary, socially determined, but highly prestigious standard. There will be still further markers which indicate that the individual has selected a certain style of speech. Analyses of the styles available to the speaker in his native language and contrasted with the styles available to a speaker of the language to be learned would be enormously useful in foreign language teaching. The usual designations "formal" and "informal" are far too broad to be useful. In a recent little book called The Five Clocks, Martin Joos has suggested a style matrix for English with the following categories: intimate, casual, consultative, formal, and frozen. We cannot give details here; it will be sufficient to say that I am now speaking formal American English. When I descend from the rostrum and indulge in discussions with individuals or very small groups, I will be speaking in consultative style, roughly characterized by the need for constant cues from the listener that he is indeed listening to me and, hopefully, understands what I am saying. If I write a book, its style will have certain characteristics which derive from my knowledge that it is possible for the reader to reread as often as he wishes. This is frozen style. Joos tells us that it is quite usual to shift up or down one step in this stylistic hierarchy at any time in the same conversation. Thus, I may go from intimate to casual or from casual to consultative or from formal to consultative, but I will not usually jump two steps. One must add that this tentative analysis applies thus far only to English. It has not been tested for other languages.

Implicit in our discussion of style has been the notion that there are also situational dialects in any language independent of region and cutting across a categorization based upon degrees of formality or degrees of deviation from some standard. In many societies the educated social norm may differ markedly from what has been called "officialese," on the one hand, and "kitchen and marketplace" on the other.

Most of us teach young people, and many of these are adolescents. Little systematic work has been done which would correlate linguistic differences with age groups, except for very young children. To give but one example, I have spoken German for many years and still find myself acutely uncomfortable with respect to the use of du and Sie to young Germans who appear to be between the ages of 12 and 16, but whose age I do not really know. While certain superficial rules appear in all the grammars and textbooks, I am quite certain that these do not correspond in any realistic way to the cues which guide native speakers in making an acceptable choice, or in determining that the choice does not matter much or is indeed difficult even for native speakers. We also have no descriptions which tell us about the sly interplay by which a young man may, in the midst of a per-Sie exchange with a young lady, test the effects of a single du-form, uttered hastily and as if by accident, all this so that he may judge if the association is progressing satisfactorily in a certain direction.

Signal syndromes thus occur in a situational context. I should like to call your attention to Erving Goffmann's fascinating book The Presentation of Self in Everyday Life, in which the author offers a brilliantly conceived matrix for more precise work in the description of human interaction in different situational contexts. For


Anglo-American culture he answers questions like: How does the individual in ordinary work situations present himself and his activity to others? How does he guide and control the impression they form of him? What may he do or not do in sustaining his performance before them? How does the interaction change as the individual faces more than one person? Answers to these questions would of themselves be considered sociological rather than semiotic description, but accurate description of the semiotic correlates of situational contexts as they differ for different cultures will one day have considerable influence on the content of foreign language teaching materials, particularly, as we have said, at advanced levels of instruction.

Thus far, we have been dealing with live signal syndromes. We have yet to discuss writing, writing systems, and written languages. The standard written language of any culture is subject to stylistic variations which may or may not correspond to the style matrix which adequately describes spoken signals. Written language is, of course, capable of analysis in its own right. Indeed most efforts at linguistic description have traditionally been concerned with the analysis of what is written. What needs to be done for the foreign language learner in this area may be summarized as follows: The writing system needs to be analyzed in its own right and then its relationship to spoken language carefully set forth, because this relationship is by no means necessarily simple or one-to-one. Beyond the mechanics of the writing system, e.g. the system by which letters or sequences of letters in an alphabetic writing system represent the phonemes of the spoken language, there are clearly constructions and styles that are acceptable in speech but seldom written, and there are constructions and styles that are acceptable in writing but seldom spoken.

There are also devices available to the writer which have no simple counterpart in live human interaction. We have already noted that there are styles appropriate to writing and not to speaking. Many languages use visual morphemes such as 1, 2, 3, & $, lb. and the like. In written English, with its complicated spelling system, grey seems somehow to be a good color, gray a bad one. The meaning of phrase versus phrases, or sword versus soared seems irrevocably attached to the written configuration, and the visual appearance of one does not suggest the other as should be the case if all that is involved were the stimulation of actual or subvocal articulatory movements. The suffix -or in advisor is more prestigious than -er in adviser; Smythe is swankier than Smith. "Eye dialect," — see, winnin, sassiety, whut or wat — uses visual signals with sociolinguistic reference, by which misspelling substitutes for mispronunciation. On another level, punctuation does not uniformly correspond to intonation features. The paragraph is a unit of writing with no obvious counterpart in speech. All these facets of writing deserve careful study in their own right.

Given a careful comparison of written and spoken language for a single culture, we then need cross-cultural comparisons. Contrastive analysis must come to include not only points of conflict between two languages but points of conflict between two sets of spoken-written style relationships.

One final point brings us to the end of our discussion of the first of our directions. Still another descriptive task has thus far received little systematic attention. Descriptions of signal syndromes will necessarily be couched in technical language, probably even more complex than some recent linguistic descriptions, which are in many cases almost unintelligible to the language teacher or materials designer. Indeed, some of them are well-nigh unintelligible to other linguists of a different theoretical persuasion. There is a need for what may be called pedagogical grammars, which will organize technical descriptions into arrangements which would be most useful to those who use them as sources for the construction of foreign language teaching materials. They must be written in a style which is comprehensible to users who are not scientific linguists.

From the myriad possibilities worthy of discussion which relate to the second of our four directions—roughly the area of psycholinguistics—I have selected but two, one concerning effects on the receiver of elements of the semiotic code, the other concerning certain insights from psychology which bear upon some of our present teaching practices.

You will recall that we have thus far studiously avoided considering how much of the total complex of semiotic signal material should actually be taught, once it has been satisfactorily described. One may certainly have many reservations about the type and degree of acculturation which teachers of foreign languages may set as a legitimate goal. Let us take a linguistic example. We are currently making very good progress in devising more effective means of arriving at what is commonly called a good accent in a foreign language. Yet is would be naive to suppose that the results of these efforts will in every case assure phonological control indistinguishable from that of a native speaker. There will still remain native speakers of Spanish, for example, who use Spanish vowel phonemes when speaking English. In his justifiable enthusiasm for basing his analysis primarily on what is spoken rather than on what is written, the linguist includes in his repertory of structures which are to form the basis of teaching materials such items as "I'm gonna go home." There is no doubt that a speaker of Spanish or of any other foreign language must respond to "gonna" as a completely normal, frequently recurring, form in one style of spoken English. But unless his accent is just about perfect, and it seldom is, he cannot himself use this form without unfavorable reactions from native listeners. What is at issue here is the peculiarly elevated image of his language which the educated native speaker possesses. Distortion of the language image produces unfavorable reactions which do not enhance the status of the speaker and can interfere with the effectiveness of his message. The educated native speaker of English would prefer that the foreign speaker substitute the form "going to." The form which conforms to the image seems somehow better able to support phonological distortions.

An example from German: *ich habe es in ich habe es doch gar nicht gesehen* is often heard as [saps . . . ]. A foreigner's attempt to do this would be ludicrous unless his accent were very good indeed. The oft-heard phrase: "You speak German better than we (natives) do," whose naiveté is amusing to the linguist, implies a cultural reality which cannot be taken lightly.

There are delicate problems here of seeming to be too intimate, of stepping beyond lines which the foreigner had better not cross. The seriousness of these problems varies from culture to culture. Yet even though under certain circumstances the native speaker of Spanish may say *con permisito*, the American or German is on safer ground if he says *con permiso*. Certainly anyone learning French must come to understand */lispaskidi/, but perhaps he should permit himself only */lmospaskildi/ = *il ne sait pas ce qu'il dit*. We might suggest then that the learner of any foreign language learn to understand and respond to any and all forms and structures used by the native speaker, but permit himself to reproduce only a selection of these, in order to keep a safe cultural distance, as it were, and not to offend the admitted elevated language image of his foreign hosts. Once we have further semiotic data in hand, it seems reasonable to suppose that paralinguistic and kinesic material should also be included among the kinds of signals to which the student must learn to respond, but that *production* of these foreign signal syndromes will need careful monitoring, lest the result be offensive on a number of grounds.

We just had occasion to mention that substantial progress is being made in the teaching and learning of pronunciation. By contrasting the phonological systems of the two pertinent languages, we have come to have a good understanding of the perceptual grid through which the learner sifts the sounds of the new language. We appreciate that he can hardly be expected to produce accurately what he has not yet perceived as distinctive. A number of recent programming efforts have concentrated on ways of training the learner's perception (not his hearing) of differences between significant sounds in the new language, and between these and the sounds of his native language which he is most likely to substitute for them. But, while we suspect that it is even more important to control foreign intonation than to control particular phonemes, we do not as yet have more than an intuitive idea of which sounds in any language are most important for the learner to control from the point of view of the effect on the native speaker of that language. Suppose we were to listen to a tape recording of a native speaker of English speaking German, and rate his pronunciation on a five point scale from perfect to unacceptable, to what extent would these ratings correlate with the management of particular pho-
nemer? We do not know. Presumably it is important to preserve all the phonemic distinctions of the language, but we know that the redundancy of language is such that the native speaker will probably understand even if many of these distinctions are obscured. By which error is the native speaker most offended? Is the correct handling of ich-laut and ach-laut, or the initial consonant in /rot/ more or less important than control of /ʃ/ or /y/? Native speakers of English always notice when foreigners do not pronounce the initial sounds of this and thing correctly, but is this more important than the initial retroflex sound in /red/? If there are, say, forty phonemes in some language, perhaps we need to control only a dozen of them perfectly to be fairly certain of not offending our listeners. Again, our knowledge in this area is largely intuitive and unsystematic.

In considering effects on the listener, we shall have to be aware of the stereotyped reactions to particular accents which are typical for any culture. An American accent does seem to be regarded favorably anywhere, but I would guess that it is more acceptable in speaking German than in speaking French. The French—so goes the myth, at least—tend to be quite intolerant of foreign accents, but still find an Italian accent not unattractive. Americans are said to be extremely tolerant in this respect, and regard a French accent as so charming that many prominent French entertainers have found it profitable to preserve their accents long after they have learned to pronounce English perfectly, or nearly so. But a German accent in English would not ordinarily be described as "charming," and so on.

Let us leave this virtually unexplored area of effects on the native speaker, and turn now to problems which have been slowly emerging from recent attempts to teach spoken language in regular school situations. The relationship of these problems to our second direction—psycholinguistics—will become clear as we proceed.

We have already indicated, or at least strongly implied, that many current efforts to improve foreign language teaching are based on a view of language as spoken communication, and hence as learned habitual signaling behavior. It would seem that, on the one hand, the foreign language learner must acquire a set of perceptual habits that will finally enable him to understand what a native speaker is saying when he speaks as he does in normal circumstances in the foreign environment; on the other hand, he will have to acquire a corresponding set of speaking habits, so that he can exploit the underlying signal system in such a way as to produce contextually meaningful utterances which are fully acceptable to the native speaker, yet which neither partner in the exchange may ever have heard or produced in exactly that form before.

The central problem of any method of foreign language instruction which includes understanding and speaking among its objectives has always been, therefore, how to get students from some kind of controlled, directed activity in the language to the point where he can, to paraphrase what we have just said, produce and respond to contextually meaningful utterances which are entirely normal, but which he may never have heard or uttered before in exactly that way. This latter stage has traditionally been called "free conversation." We shall call it "actual communication," or simply "communication." In the United States, methods which presume to do these things are now usually called audio-lingual; in Europe, similar efforts are more often called audio-visual, the two terms focusing on different aspects of the teaching and learning situation. In audio-lingual methodology, habits are formed by pattern practice. Pattern sentences containing a crucial construction are first memorized, sometimes in what are called basic sentences, often as part of a dialogue. These pattern sentences are then manipulated in many different kinds of oral drills. We cannot give examples here. For extensive examples, and for one of the clearest expositions of audio-lingual techniques which has come to my attention, I should like to refer you to Robert Lado's excellent new book* published this year by McGraw-Hill. The cumulative purpose of these different drills is to enhance the possibility of subsequent correct analogy, the process by which language constants, constants of form, of arrangement, of equivalence, are said to transfer to new situations and hence to new content. A child behaves

this way, for example, when he says noticed for the first time, on the basis of laughed, missed, passed, helped and, of course, the false goed and maked on the basis of similar experience. But it must be admitted that the path from such manipulation to actual communication remains by no means a smooth one. Our students exhibit extraordinary dexterity in manipulation, but are much less adept at communication. That this gap exists is well known and much discussed among proponents of these methods, and newer published materials all include attempts to make up for this deficiency.

Our difficulties in this area probably have a great deal to do with our management of content, that is, of what is called real-world or socio-cultural meaning. Many of the cues of manipulative drills are not content cues such as would be encountered in actual communication, but rather instructions to manipulate. This is necessary if the drill is to have any analogical power. The stimulus, or cue, one of many in a single drill, might be je cherche le sac; the desired response, to fix the form and position of the masculine pronoun object, je le cherche. But the cue which might invoke the response je le cherche in a real situation may be anything from Où est Jean? to Avez-vous trouvé le sac? In addition, cues in actual communication come not only from the partner in the exchange, but from things one sees around one, and, most important, from one's own words as one produces one sentence after another. In short, when one has to think about what one is saying rather than how one is saying it, the component skills achieved through manipulative drills tend to disintegrate, probably due to a kind of interference, or shift of attention. One can plead that patterns which contrast sharply with native language patterns have not been properly assimilated, that habits have not been deeply ingrained, that automaticity has not been achieved. This may indeed be so, but the dexterity of our students in manipulation tends to make us uneasy at this explanation. At least two solutions have been proposed. One of these would eliminate all but purely structural content in an intensive approach to the establishment of automatic pattern control. Another, and I tend in this direction myself, suggests a rapprochement between manipulatory drill as it is found in most current American approaches, and certain European efforts based on the same general premises, which however, insist on not straying very far from real situations, and try wherever possible to maintain a continuous sense of reality by the judicious use of visual aids—an audio-lingual-visual approach, as it were.

I should like to suggest a third approach, of itself not new, but not usually suggested in this context, and one which is based on certain rather oblique insights from psychological theory. It is not really an approach at all, but, more accurately stated, simply a feature of the audio-lingual-visual approach just suggested. I am suggesting a great intensification of listening practice, a heavy underscoring of the audio in audio-lingual-visual. Let me tell you how I arrive at this suggestion as a possible means of helping to close the gap between manipulation and communication.

My point of departure is another new book which I must bring to your attention, by Wilga M. Rivers, called The Psychologist and the Foreign-Language Teacher. In this book Dr. Rivers carefully examines the assumptions underlying audio-lingual teaching, and relates them to the learning theories of various schools of psychology. This important book merits careful review. Here, however, along with many other interesting problems, we must forego discussion of Dr. Rivers' searching analysis of the psychological bases of analogy versus analysis, and their respective roles in audio-lingual methodology. It will be sufficient to say that for most of the assumptions underlying manipulative drills she finds adequate theoretical support in behaviorist and neo-behaviorist psychology, and calls specific attention to the gap between manipulation and communication. In examining this difficult area, Dr. Rivers finds it productive to draw extensively on Gestalt psychology.

Gestalt psychology deals with perceptual wholes as they assume a significance which is different from their component parts, and, contrary to popular view, insists equally on an understanding of the structure, i.e. the components of the whole. In considering what may be expected to transfer from manipulative drill to ac-
tual communication—and indeed something must so transfer—Dr. Rivers reminds us of the Gestalt view of transposition, which indicates that what transfers to a new situation is “perceived relationships,” i.e., the elements are changed, but the whole-qualities, the essence, the principle, are preserved in recollection, and may then be applied under changed circumstances. Common principles are said to mediate learning between two situations which are otherwise quite different. These provide much better transfer than reliance on similar elements, which in the crucial situation may not reappear, or, rather, may not be perceived as reappearing. Dr. Rivers concludes that the relationships to be perceived are those which are revealed by grammatical analysis, and that, therefore, the path from manipulation to communication will be made smoother by more analysis of this kind.

I now quote her recommendation to teachers: “If fluency in expressing one's own meaning is to be developed, practice must also be given in this skill. The student must have much practice in selecting structures and vocabulary which will enable him to enter into communication with another person as he would wish to do. This he will have difficulty in doing if he has not been trained to recognize the crucial element in material on which he has been drilled and to see the functional relationship of a new element to the other elements in the whole pattern. If he has been trained in this more analytic way, however, he will be able to use these structures independently of the specific context in which he first learned them.”

I do not wish to quarrel with the main burden of Dr. Rivers' conclusion. If earlier writers on audio-lingual methodology did not stress this point, it was because they were reacting, and properly so, to a long tradition of extensive classroom expositions on grammar so characteristic of what has been called the grammar-translation method, and since lecturing on grammar is always a line of least resistance for teachers, even now we must caution against misinterpreting Dr. Rivers' recommendation. But there can be little doubt that students of adolescent age and older should know what they are doing when they engage in manipulative drill. Whether the brief explanation required should precede or follow the drill, or even take place at some mid-point, depends, generally, on the complexity of the point of the drill and the amount of manipulation required. Explanation without extensive practice is futile, extensive manipulation without explanation can be frustrating and deadly.

Upon considering these insights from Gestalt psychology, however, I found myself led in a quite different direction. First of all, we note that similar elements may not transfer, that is, they may not be perceived as reappearing. We note, for example, that subjects trained by shock conditioning to raise their hands on hearing a particular musical tone do not respond at all when they hear the same tone as part of a well-known tune. We are then led to suspect that the character of a signal syndrome perceived in any instant of interaction is indeed different from that of the sum of individual bits of signal material. One wonders, therefore, not about the merits of analysis, justifiable on many counts, but about the nature of the perceptual bridge between the analyzed parts and the perceived whole, a whole which is constantly changing in many dimensions at bewildering speed. Then, too, we know that language is highly redundant, that communication still takes place, even though many simultaneous and successive cues have been wholly obliterated, all this making the Gestalt which must be perceived still more elusive.

I think you can now understand how I have been led to counsel a massive increase in the amount of time spent listening to actual bits of human interaction. Repeated listening to recorded bits of real human interaction, as I have suggested, should on different occasions permit different relevant parts of the whole, as previously manipulated, to come to the listener's attention according to his momentary perceptual set, and in relation to the strength of the habits he himself has already established. The material he listens to must not extend him beyond his depth, a depth established by the scope of his previous memory work and manipulative drill. He must be able to listen again and again to recombinations of that material, as often as he wishes.

The emphasis here is on intensified practice in understanding, to be sure, on “listening comprehension,” as it is often called by language teach-

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ers nowadays, on perception, as the psychologist puts it. We shall shortly have to build ourselves some kind of bridge, however tentative, to production, to talking, if we are to work toward increased efficiency in communication, which includes both aspects of language behavior. For the moment, however, we must consider briefly what the student might actually do in the course of the intensified listening practice I am recommending. Current operant conditioning theory would insist that he do something overt, if learning is to take place. Yet we are on the horns of a dilemma here, for if our reasoning is worth subjecting to experimental treatment—and I think it is—we must not force the student to make overt responses that we have already predetermined, but, rather, let the student’s “response” depend on his own momentary perceptual set and on the strength of the habits he himself has already acquired. The dilemma is in part apparent and in part real. There is danger here of falling into a simple semantic trap. Listening comprehension is often referred to as a “passive” skill; it surely is not, in the present context. If any comprehension at all takes place, something must go on inside the listener’s head. Neurons fire. Stimulus-response chains are set up. All this is real activity on the learner’s part. But the dilemma is real in the sense that this is not overt responding. Since we are speculating, we could very well choose to ignore current prescriptions about the need for overt responding, and see if student achievement in comprehension (and speaking, but see below) improves simply as a function of increased exposure. The student would merely be instructed to focus on whatever parts of the recorded samples of interaction come to his attention, and to continue to listen and relisten as long as things seem to become “clearer” to him. This is a pretty vague instruction, worth trying experimentally, however. “Overt” responding might be tried in the form of a simple button press, or button press and light, the learner being told to press the button whenever he feels he has for the first time understood something, or gotten something new from the material. Here the button press is simply a gesture, an overt surrogate for a variety of covert responses having only the notion of discovery or revelation in common. There is room for considerable pedagogical and experimental ingenuity both in preparing the recombinations and in devising solutions to this problem of overt responding under the conditions I have recommended.

We still need that bridge back to talking, if we are to have two-way communication. The relationships of speech perception to production are controversial, and we cannot discuss the methodological implications of different views here. Let us say only that intensified listening to recombinations of previously memorized and manipulated material should increase oral fluency in undirected circumstances because one effect of that practice should be storage for subsequent retrieval. In response to an understood utterance by an interaction partner, or to a succession of utterances, or to his own words, or to a glance at the scenery, or to any “idea” which comes to mind, the learner should have at his disposal a growing repertory of stored configurations (consisting of various admixtures of syntactic, morphological, phonological and lexical material) much larger than rote mimicry-memorization plus manipulative drill could possibly supply. Note that we speak of fluency, not pronunciation accuracy, for that kind of accuracy will continue to depend on other kinds of training, which will have been more or less intensive depending on how easily the individual student imitates what he hears or recalls. One might consider following intensive listening sessions with production sessions in which the learner is encouraged literally to talk as long as he can about the content of the material he has just listened to.

It is worth observing that intensified listening practice would be totally impractical without a language laboratory. It is also interesting to observe how well this recommendation checks with the insistence, in certain special purpose courses—not school courses—on large amounts of what has been called “perception drill.” It is even more interesting that it is closely related to the advantages we have traditionally expected from foreign travel as a training stage. Foreign travel, besides furnishing many opportunities for speaking, literally immerses the language learner in intensified listening practice. Finally, it seems to follow logically from impressions that despite our efforts, students and non-

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ALFRED S. HAYES

native teachers alike continue to have great difficulty understanding native speakers and foreign movies without considerable additional effort and exposure.

The third of our directions is programmed instruction, which we have accorded a special place, despite its origin in psychological circles. No scholar or language teacher seriously interested in the eventual establishment of a firm research base for foreign language learning procedures should fail to study recent and continuing work at the University of Michigan under the direction of Harlan L. Lane. In relation to Lane’s work at the University of Michigan under the direction of Harlan L. Lane.44 In relation to Lane’s views and promising results so far, the present writer’s recommendations, above and to follow, are to be viewed as suggested interim procedures which permit language teachers to move forward with the facilities and techniques available to them now, for years of the truly admirably rigorous work of Lane and his colleagues and disciples are ahead before their results will find application in the classroom or its future counterpart. It is in this sense that I offer here but a few insights from the premises of programmed instruction which foreign language teachers can apply to their daily work, without waiting for the self-instructional courses which show so much promise but are so slow in materializing. One of the general principles observed by programmers, programmers in this very special technical sense, is that of taking something the student can already do and modifying it in definite successive steps until he can do what you want him to do. Let us take a pronunciation problem. If you are teaching German to speakers of English the ich-laut will loom large as a common difficulty. In the typical situation the teacher says ich, the learner says ick, and no progress is made from that point on. The teacher might even experiment with ich liebe dich, with little success. He, or she, probably does not often hear the caricatured English-spelling pronunciation in reply, [ič dʃə wɛ] for ich dich auch. We suggest, in all seriousness, the following procedure. One must begin with something the learner can already do, so step 1 might well be [s] (as in dish), which any speaker of English can pronounce. Step 2: pronounce [s] with spread lips, producing a sound which is neither German nor English. Step 3: open the teeth to whatever sounds, which work for some learners and not for others.

The insight from programmed instruction is this: do not suggest all the steps at once, because the learner will just continue to take unsuccessful shots at the target, ignoring your directions completely. Make each step an assignment for the next day, which must be mastered before the student is allowed to proceed. In this way, by next Tuesday, your student may master a sound which he would not otherwise have mastered by a year from next Tuesday.

Let us take one more pronunciation example, this time the retroflex sound at the beginning of the English word /red/, which is so difficult for many speakers of the common European languages. If you say: (with retroflex r) “Robert gave Richard a rap in the ribs forroasting the rabbit so rare” (not very good English, by the way), many speakers of German might repeat it using the familiar German uvular r. Again, in all seriousness, we suggest, taking the word roast as an example, the following steps. Since we must begin with something these speakers can say, step 1 in this case might be [zo:st]. Step 2: run the tip of the tongue back along the roof of the mouth to about the middle and try to say [zo:st]. Step 3: keep the tongue in the same curled-back position but lower it until there is no audible friction or buzzing sound. Naturally, the sound must subsequently be practiced in different phonetic environments, particularly before vowels which do not normally occur in German, e.g. run, ran, and in clusters such as tr and pr. These steps are by no means easy, and will cause varying degrees of difficulty to different students. But the message again is this: begin

44Harlan L. Lane, et al. Experimental Analysis of the Control of Speech Production and Perception: Progress Reports I-VI. This research is supported by the U.S. Office of Education. Reports are available through the Office of Education or from the Project Director, Department of Psychology, Behavior Analysis Laboratory, University of Michigan, Ann Arbor, Michigan. See especially two articles by Lane in Progress Report IV: “Programmed Learning of a Second Language” and “The Motor Theory of Speech Perception: A Critical Review.” The first article has been reprinted in IRAE (International Review of Applied Linguistics in Language Teaching) Vol. II, No. 4 (1964), pp. 240-301.
with something the learner can do, and make each step toward your objective a definite assignment which must be mastered before the next step is undertaken. These are insights from the principles of programmed instruction which I believe can help the teacher in his daily work.

I now leave the psychologist to put his discipline back together after a linguist/language teacher has thoroughly mangled it, and proceed to the fourth and last of our new directions, the one I called the selective integration into our instructional methods of the vast electro-mechanical resources now available to serve the whole field of education. The possibilities are endless, and today and henceforth the language teacher must learn, not to be an engineer or a technician, but to interpret his professional task in such a way that he not only takes advantage of available technical resources but contributes to their development by including within his conceptual framework the possibility of electro-mechanical solutions to a variety of learning problems. Otherwise “audiovisual aids” will tend to remain fixed in certain preliminary forms such as the language laboratory. Electronic engineering can build us anything we want, but we must know that we want it.

In considering the language laboratory and the role it can play in modern foreign language teaching we hope you will profit from the mistakes made by pioneers in this field. I suppose that the most glaring mistake we made was to underestimate the magnitude of the problem of developing the necessary teaching materials, for the tape recorder remains inert, mute, ugly when it has nothing to say, or when what it says is ill-considered, ill-planned and unrelated to some self-consistent view of the teaching process which it can so effectively extend, or, in certain respects, even make possible for the first time, such as the intensive listening practice we have just advocated. This warning is not intended to comfort those who are afraid of machines, or who by some twist of reasoning find machinery incompatible with humanistic goals. It is intended to encourage administrators and teachers to move slowly, to avoid mistakes which we in the United States are now but slowly overcoming.

For the tape recorder—now in the prevailing fashion installed as the basic unit of the language laboratory—need by no means be inert, mute, ugly; it can be alive, loquacious, beautiful. Of itself it makes no miracles; you, the teachers, are the miracle workers. Put this compliant slave to work. You will soon find him indispensable.

Of the many possible future developments, I wish to suggest but one that is not ordinarily supplied as a standard feature of language laboratory equipment today. It is a feature that is badly needed, presents no serious technical difficulties, and should enhance both current language laboratory procedures and attempts to arrange listening practice along the lines I have suggested. At the touch of a button, the learner as he works in the language laboratory should be able to listen again as often as he wishes to the last second or two of recorded material. By this means he will have the opportunity to overcome perceptual difficulties which may otherwise continue to impede his progress indefinitely.

We have spoken of four directions, of extensive description of the signal syndromes of live human interaction, of insights from psychology and related fields, including programmed instruction, and of putting to work the vast technical resources now at our disposal. It will not have been lost upon those who think of the study of language as belonging among the humanities that these four directions are directions of science. Let this be no cause for alarm. For it is precisely the broader task of language teachers today to help to build a new humanism, a new humanism which will have absorbed the resources and findings of modern science into its philosophy in a self-evident and natural way. In any event, the job yet to be done remains so great and so challenging that insights must continue to be welcome from every discipline which can contribute, either directly through the results of research, or indirectly through the stimulation of new and provocative ways of looking at old problems.