REFERENCES

Recent Language Research and Some Language Teaching Principles

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The underlying assumption of this article is that linguistic and com-
munication research can support principles on which to base revisions
in the content and method of language teaching. The article first
reviews the results of research in language acquisition, interactional
analysis, pragmatics, repair, error, and social and affective factors.
Four general principles are then extracted from this research, princi-
ples relating to acquisition activities in the classroom, the importance
of affective factors, the communicative capacity of learners, and the
nature and treatment of error.

INTRODUCTION

Over the last ten to fifteen years, the language teaching profession
has been provided with a wealth of new information on language and
language use from several areas of linguistic and language-related
research. As is usual, the problem for designers and providers of
language instruction has been to determine how to assimilate, evaluate,
and apply this new knowledge. The process of application really
involves two questions: the effect of research on what aspects of
language behavior we choose to teach and the effect of research on
how we teach. Much recent work has focused on the former question,
especially the work done for the European Unit/Credit system (van
Ek 1975) and much of the work done in Britain on communicative
language teaching. Methodological questions have been addressed in
the work of Curran (1968, 1972, 1976, 1978), Gattegno (1972, 1976),
Lozanov (1979), Asher (1977), Winitz and Reeds (1973), and Terrell
(1977, 1982). None of these, however, has attempted to draw systemat-
ically on the results of broad-based research in developing their
methodologies. Stevick (1976, 1980, 1982) has done so in a personal and
practical way, but his recommendations are often more eclectic than
systematic. Krashen (1981, 1982) has begun to address questions of

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methodology and approach, but his view is tied quite closely to the model of second language acquisition which he has developed.

All of this work is instructive and useful. The pedagogical recommendations of Krashen (1982) and Krashen and Terrell (1983), in particular, come closest to bridging the gap between theories of language and language acquisition and actual classroom techniques. This article does not attempt to address that same issue but rather focuses on how an examination of recent language-related research can suggest principles on which effective language teaching can be based, principles which relate to approach, design, and procedure in language teaching (Richards and Rodgers 1982). What this article consists of, therefore, is a review of research that relates to questions of instructional methodology and the suggestion of four principles which can be used to guide specific methodological decisions.

ACQUISITION AND LEARNING

A useful theoretical construct in language acquisition research is the now widely accepted distinction between learning and acquisition (Krashen 1978). Krashen's hypothesis is that adult language learners have two different means available to them to gain knowledge of a second language—*learning* and *acquisition*. In brief, *learning* results from deliberate, structured, and conscious attempts to learn the language, such as through drills and rule memorization. *Acquisition*, on the other hand, results from natural and meaningful interaction with other speakers in the target language. According to this hypothesis, learning is very different from acquisition in that it only functions to correct or "monitor" (Krashen 1978) the language being produced. These corrections or changes can take place before or after a sentence is actually spoken or written, but in order to make the correction the learner must recognize the error, know how to correct it, and have sufficient time to do so (see Krashen 1978 and 1982 for a more detailed consideration of this point). In immediate, face-to-face or pen-to-paper, communicative encounters, these conditions can rarely be met, so it is argued that learning may not be as important in developing the ability to communicate fluently, verbally or in writing, as we previously believed. Rather, according to the hypothesis, fluency develops gradually as a result of communicative experience in the target language, with progress occurring when the learner is able to understand most of what is contained in the communication but when that communication also contains language material the learner needs and is ready to acquire. Krashen (1982:9) refers to this understandable language as *comprehensible input* and defines it as language that is comprehended by the learner but which still contains and, therefore,

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provides new structures or other language material that the learner has not yet acquired. That is, it is hypothesized that learners can acquire language when they have to use it to communicate their wants and needs, when the focus is on *what* they need to say rather than on *how* they should say it.

More research is being done to clarify the relationship between learning and acquisition, but our present understanding of the distinction seems sufficient to suggest an explanation for the evident lack of positive transfer to actual performance in communicative situations in the target language of much language instruction in which the emphasis is on drills and rule memorization. What the learning/acquisition hypothesis suggests is that activities which result in learning may have a limited role in an overall language instruction program, a role of assisting learners in developing learning- and monitoring-sensitive abilities in such areas as spelling, punctuating, and test taking, for example. But, the hypothesis suggests, if effective use of the language in realistic settings is the goal of the program, then learning-fostering activities should not dominate the language classroom to the exclusion of acquisition-fostering activities which help students develop spoken and written fluency in the target language.

LANGUAGE ACQUISITION

Research in language acquisition has focused on three different types of acquisition: 1) first language acquisition in children, 2) second language acquisition in children, and 3) second language acquisition in adults. Data have been collected in formal and in informal environments from all three types of subjects. From theories and research in first language acquisition we can draw conclusions for second language teaching and learning. There are, undoubtedly, important cognitive, affective, neurological, and physical differences between the acquisition of a first and a second language and between children and adults. At the same time, however, there are important similarities; essentially, both children and adults acquire languages from similar types of experiences and at essentially similar rates when conditions are optimal. Although it has been suggested that children are more likely to be able to take advantage of these experiences than adults (Asher and Garcia 1969), or at least have the advantage of receiving real intake while adults may not (Wagner-Gough and Hatch 1975), the question for language pedagogy is not the *degree* of similarity or difference between first and second language acquisition but rather the recognition of the similarities so that those similarities, and not just the differences, may be taken advantage of to increase effectiveness in second language instruction.

There are three basic ways in which first and second language acquisition are similar. They are summarized as follows:

1. **Natural order.** One area of research which has received considerable attention in the past few years is the study of the order of acquisition of various morphemes. Brown (1973) first demonstrated that there was a natural order in which children acquired some of the morphemes of their first language. Brown's longitudinal findings were confirmed by de Villiers and de Villiers (1973). Studies of the sequence in which adults acquire grammatical morphemes in a second language began with the work of Bailey, Madden, and Krashen (1974), who confirmed that adults also showed a regular order in acquiring the eight morphemes studied. Dulay and Burt (1974), using the *Bilingual Syntax Measure* (Burt, Dulay, and Hernandez 1975), established a similar order for children learning a second language. Andersen (1976) and Krashen, Butler, Birnbaum, and Robertson (1978) reported natural orders in the written production of adults. Although there are some problems with these studies, specifically concerning the statistical procedures used, whether the natural ordering is an artifact of the *Bilingual Syntax Measure*, and whether or not morphemes in obligatory contexts reveal enough about the language acquisition process (Larsen-Freeman 1975, Porter 1977, Hakuta and Cancino 1977, and Rosansky 1976), there is no counter-evidence to the hypothesis that the existence of a natural order is part of the creative construction process in both adult and child language acquisition.

2. **Comprehension.** Children acquiring first languages learn to comprehend before they learn to speak. Winitz and Reeds (1973) claim that in first language acquisition, comprehension outpaces production by about a year. They claim that this sequence of development is a functional property of the brain and cannot be reversed or greatly modified. Recent studies support the hypothesis that delaying speech in second language instruction, while at the same time providing active listening, causes no delay in attaining proficiency in a second language (Gary 1975, Postovsky 1977). In fact, according to Gary (1974), early oral performance may not be profitable for children and adults studying second languages in formal settings. Terrell (1982) has also found strong evidence to support a pre-production phase for classroom instruction.

3. **Linguistic input.** Language acquirers in natural situations receive what we call *comprehensible input* (see above). In first language acquisition this type of input is called *caretaker speech*, and in second language acquisition it is sometimes called *foreigner talk*. Hatch (1979) summarizes some of the important characteristics of simplified input: reduced rate of speech (words and phrases are not

stretched, but more frequent pauses are inserted at possible bound-
ary points), shorter utterance length, greater use of redundancy
(repetition and gesture), simplification of syntax, and more frequent
use of specific discourse phenomena (e.g., *yes/no* questions and tag
questions). All of these modifications to normal adult speech assist
learners in making useful guesses about the language and in
developing an internalized working grammar of it. Snow (1979)
reports that children figure out underlying structures with the aid of
simplified input. Rubin (1975), Terrell (1982), and others have
suggested that the same processes operate for adults.

From the point of view of research, the role of conscious learning in
the language acquisition process remains unclear. Much of present
language pedagogy is based on the assumption that language acquisi-
tion can be quantitatively and qualitatively improved through formal
instruction in the language, especially instruction in the grammatical
regularities of the language. Lee, McCune, and Patton (1970), how-
ever, have provided evidence that strongly suggests that students do
not pay much attention to repetitive drills after a few repetitions, and
Hendrickson (1976) has noted the lack of effect on student writing of
explicit correction of formal errors. But, at the same time, it is obvious
that many language learners have somehow benefited from being
exposed to explicit grammatical instruction.

Krashen (1982) argues that the role of conscious learning in language
acquisition is limited almost entirely to being a source of input for
those learners who are open to it, and that there is little or no transfer
from formal, conscious learning to communicative performance.
Others (Bialystok 1978, Stevick 1982) have posited a greater role for
conscious learning but with little evidence to support their views.

Given the strength of the acquisition hypothesis, it is difficult to
support a view that calls for a central role for conscious learning in
language instruction. Since the input which leads to language acquisi-
tion is ultimately not defined by the type of language available to the
learner but rather by how the learner is able to utilize it, the acquisition
hypothesis presents the stronger case that acquisition is an incidental
outcome of instruction. Instruction may certainly serve as input for
some learners, but it is an additional empirical question whether
instruction intended to lead to conscious learning is the most direct
route to a useful competence in a new language. Conscious learning
may positively affect the learning of some routines and patterns
(Krashen 1981:96-99) and limited aspects of language behavior, such as
editing written work, but there is strong evidence that extensive com-
municative experience with a new language is necessary for communi-
cative competence to develop (Carroll 1967, Saegert, Scott, Perkins,
and Tucker 1974). What remains to be better determined is the nature

of the relationship between learning and acquisition and the nature of classroom experiences that can foster communication and acquisition.

INTERACTIONAL ANALYSIS

Since acquisition is hypothesized to be a product of meaningful interaction, it would be useful at this point to review what has been discovered about the form and content of conversation and verbal interaction. The sociological perspective on which much of this work is based was set by Goffman (1967, 1971), but the formal or structural analysis of conversation is a relatively new topic of interest. Most of the work has been done by the late Harvey Sacks and his colleagues, Schegloff and Jefferson. Their work (especially Sacks, Schegloff, and Jefferson 1974) has established the *turn* as the basic unit of verbal interaction and has characterized conversations as being governed by a *turn-taking system*. Their analyses are purposely focused on the structural properties of this system, on what behavioral devices are used to establish and hold turns and to open and close conversations. They are less concerned with which linguistic forms are used to accomplish these ends. Their work has established that competent speakers of a language use a system for structuring verbal interaction which is somewhat independent of the form and meaning of the language used in the interaction. There are, in short, expectations and regularities that typically operate in conversation even when, through error, misunderstanding, or perversity, a speaker produces an utterance which does not seem to perform an appropriate function. Coulthard cites an extreme example of a doctor and schizophrenic patient maintaining the turn-taking system even though the patient does not fill his turn appropriately:

A: What is your name?
B: Well, let's say you might have thought you might have had something from before, but you haven't got it anymore.
A: I'm going to call you Dean.   (Coulthard 1977:63)

While this example is bizarre, the careful observation of turn-taking formalities in it demonstrates that conversation can be governed by structural constraints, at least at a basic level. Some details regarding how turn selection is done seem to differ from culture to culture, but the system of taking turns and the expectancy on the part of speakers to do so is universal enough that it constitutes a basis for verbal interaction by language learners in the new language well before they are competent enough to participate skillfully in that interaction (Conrad 1982). The learners come to the new language with the expectation that it will be organized into turns and that filling turns is a minimally adequate way of sustaining conversation. They also assume

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a system of openings and closings, the details of which must be learned or acquired.

The concept of turn taking has been elaborated with the notion of *adjacency pairs* (Sacks, cited by Coulthard 1977:70), a frequently occurring but specialized pair of turns that are related in that the nature of the second turn is predicted by the first. Question-answer is one obvious pair; greeting-greeting is another. A small list is given by Richards (1980:421), with the suggestion that language instruction address this phenomenon more directly. But the phenomenon is a discourse universal and, as such, constitutes pre-existing knowledge of the structure of discourse. Language instruction can use this pre-existing competence as a basis for instruction in the specific forms that are used in adjacency pairs in the language being learned.

Gordon and Lakoff (1975) and Grice (1975) have identified several principles or postulates that, they claim, govern the conduct of conversation. These principles are the *sincerity condition*, the *reasonableness condition*, and the *cooperative principle*. Taken together, these principles assert that participants in a conversation assume, unless there is evidence to the contrary, that their conversational partners will be sincere and reasonable in the conduct of their conversational behavior and that they will be clear and orderly in what they say. These are basic notions, to be sure, but their suspension predictably requires participants in interaction to use more complex interpretation strategies to process utterances in which the principles are violated. We may offer the following example:

A: How was your date last night?
B: I got a good night's sleep.

By not relating the answer directly to the question, A forces B to do more complex work to interpret the answer.

In most normal conversations, however, conversational principles are strictly observed, giving second language learners another set of tools to use in deciphering the language that is directed to them. If they assume that the interaction they are involved in is governed by universal principles of conversation, then they have a structured predisposition and set of expectations as to how to interpret the speech presented to them.

PRAGMATICS

To the familiar division of language analysis into phonology, syntax, and semantics, *pragmatics* has been added to account for the phenomena that relate a given utterance to its functions or meaning in a given instance of conversational interaction. *It's cold in here* may be used to

inform, but it may also be used to get someone to close a door or window.

Pragmatics encompasses a wide range of contextual factors including, among others, social and physical circumstances, identities, attitudes and beliefs of participants, and the relations that exist among participants. Pragmatic competence gives speakers the ability to correctly interpret sentences such as *It's cold in here* in the way they are intended, to choose the appropriate form of address for another person in a given situation, and to fulfill many other interactional functions in between. When there are problems with the pragmatic system, misunderstandings can be quite serious, as in the case of the Japanese student who almost abandoned a new friendship because the new friend had remarked, in haste, "I'm in a hurry now—I'll call you sometime." The Japanese girl interpreted this as a permanent dismissal.

There has been considerable research into the pragmatics of English from the point of view of how the pragmatic system is used by competent speakers. In addition, Fraser, Rintell, and Walters (1980) have carried out some initial work into the acquisition of pragmatics by second language speakers and have presented a suggestion for how research should proceed. Their work is based on three assumptions (1980:78):

1. There is a basic set of speech acts common to all languages.
2. The same set of strategies for performing speech is available in all languages.
3. Between languages there is a significant difference between *when* a speech act is performed and *what* strategy is used to perform it.

Borkin and Reinhart (1978), Fraser (1981), Fraser and Nolen (1980), Manes and Wolfson (1981), and Schmidt and Richards (1980) are other examples of specific studies concerned with the acquisition of pragmatics in second languages. This area of research is still too new for well-founded conclusions to be drawn, but what is clear is that pragmatics is such an integral and universal part of language behavior that it must be addressed by language teachers from the beginning stages of classroom teaching and should not be left until later or for outside the classroom. The conventions of pragmatics vary greatly from one language to another and are of great subtlety and complexity, but since much of message design is pragmatically determined, and since setting and interaction provide much of the contextual basis for pragmatic interpretation, the need for specific interactional activities in language teaching programs is clear. Kramsch's handbook (1981) is useful and practical and provides an overview of pragmatics and other

discourse phenomena as well as some excellent suggestions for class-room activities to aid learners in acquiring them.

Given the complexity and abstractness of pragmatic rules and the dialect and individual variation that accompany their use, it is doubtful that the recommendation of Taylor and Wolfson (1978) that pragmatic rules should simply be taught to students is of any value other than for Krashen's Monitor over-users (Krashen 1981:4). Of more value is the position taken by Coulthard that "the language teacher cannot hope to explain discoursal meaning in the traditionally regarded 'cut-and-dried' way of teaching grammatical rules" (1977:xii) and that "ways of teaching should shift from teacher-telling to learner interpreting . . . Learners need to become analysts of discourse themselves" (Coulthard 1977:xiii).

REPAIR

Some of the most interesting work on verbal interaction has been conducted to determine how speakers *repair* problems that arise in conversation. The early work on repair by native speakers was done by Schegloff, Jefferson, and Sacks (1977), who defined repair as any conversational move which occurs because there is some real or perceived difficulty in the conversation. Repair is a more general phenomenon than correction, but errors in form or meaning are one kind of trouble, and correction is one type of repair. Schegloff, Jefferson, and Sacks refer to repair as a "self-righting mechanism for the organization of language use in social interaction" (1977:381). Repair in conversation between native or competent speakers is over-whelmingly *self-repair*, where it is the speaker who attempts to repair the conversational trouble, whether the trouble was self-perceived or perceived by another participant in the interaction (Schegloff, Jefferson, and Sacks 1977:376).

Gaskill (1980) has studied correction between native speakers and non-native speakers of English, and Schwartz (1980) has considered repair between pairs of non-native speakers of English. Both have concluded that self-repair and self-correction are far more frequent than *other-repair* (repair done by a participant other than the speaker), although in Schwartz's non-quantified analysis other-repair was also frequent. Conrad's still unpublished thesis (1982) is a detailed study of many of the factors involved in the interaction of native speakers of English with non-natives who are at different levels of language proficiency. Conrad demonstrated that initiation of repair, or calling attention to the need for repair, was done more frequently by the non-native member of a conversational dyad who was at a low level of

language proficiency. The imbalance was reversed at higher levels of proficiency, where it was the native-speaker member who more frequently initiated repair. As for the accomplishment of the repair itself, however, self-repair was carried out by non-native speakers at all levels of ability and increased as ability increased. These facts, plus a number of other observations on context, the relationship of inter-actants, and the types of moves used in repair, paint a rich and detailed picture of the conversational interaction of native and non-native speakers. If there is a conclusion beyond the instructive ones reached by Conrad himself, it is that language learners have a demonstrated ability to utilize non-language-specific techniques of interaction maintenance which also facilitate their comprehension and, we can assume, their acquisition of the new language. Even relatively non-proficient learners have this ability, and it is most productively used in the context of extended and sincere personal relationships with native speakers.

ERROR

Probably no aspect of language pedagogy has been the subject of more interest and misunderstanding than that of learner error. Although a great deal of research has been done on the matter of error, basic questions remain as to:

1. the source of learner error
2. the characterization and classification of error
3. the effects or gravity of learner error
4. the treatment of error in the classroom

Source

Early work on error asserted that error in second languages resulted largely from differences between the learner's first language and the language being learned (i.e., from *transfer* or *interference*), or from inadequate or unmastered instruction. Recent studies (summarized in Dulay, Burt, and Krashen 1982, on which this review is based) have established that interference from the learner's first language accounts for much less of learner error than had previously been supposed. Until now, studies of the sources of learner error have focused on syntactic error. Phonological error is probably much more the result of first language influence (Dulay, Burt, and Krashen 1982:97-98) as, possibly, are the relatively unstudied areas of semantic, pragmatic, and interactional error.

Studies of the sources of second language error (as summarized in Dulay, Burt, and Krashen 1982:163-172) have identified four types of error. The first of these are *developmental* errors, errors which are

similar to the errors made by children learning the language as their first language. Developmental errors are assumed to be a natural product of gradually developing ability in the new language and, in the studies so far carried out, developmental errors make up the majority of errors exhibited by second language learners. *Interlingual* errors, or errors clearly attributable to first language influence, make up a maximum of 25% of learner error, with the percentage being higher for adults than for children. The third and fourth types of error are, first, errors that could be either developmental or interlingual (i.e., *ambiguous* errors) and, last, *other* errors, which are neither developmental nor interlingual.

While researchers have made some progress in identifying the source of learner error, the processes by which these errors are produced are still poorly understood. *Transfer* and *interference* are terms that are more metaphoric than empirical since very little is known about what actual linguistic or psychological processes learners are employing when errors are produced.

Classification

Classifying syntactic error according to linguistic type is a more familiar way of categorizing error and is possibly of more immediate use to classroom teachers. In this approach to error, the sources or effects of errors are ignored in favor of classifying the errors according to the part of the linguistic system which is ill-formed (e.g., the phoneme /o/, third person singular verb endings, article omission, inappropriate use of *excuse me*, and so on). There are several such classifications which have been done, the most useful being that of Burt and Kiparsky (1972). Classification by linguistic type can be a useful analytic procedure and can provide a useful basis for instructional intervention as long as the classification is not mistaken for a psychologically real analysis of the process by which the errors are produced or for a hierarchy of the communicative effect of errors.
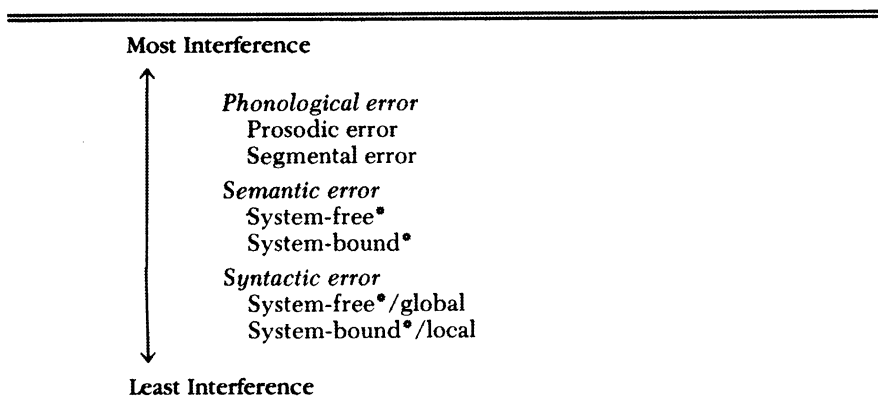
Effect

It has long been recognized that not all errors have the same communicative effect, significance, weight, or gravity, but few studies have been done to measure that significance or to determine the factors affecting it. One study of error significance was done by Burt and Kiparsky (1972) in conjunction with their linguistic classification of syntactic errors. Although their methodology was not rigorous, they established the distinction between *global* and *local* error, the former interfering with communication more than the latter. Global errors,

which affect overall sentence organization and "confuse the relations among the constituent clauses" (1972:6), include misordering of sentence elements, using connectors inappropriately, and regularizing exceptions to syntactic rules. Local errors include errors in noun and verb inflection, articles, and auxiliaries. For example, the globally erroneous sentence *Why like we each other?* was judged less comprehensible than the locally erroneous *Why we like each other?* (Dulay, Burt, and Krashen 1982:192).

Johansson (1978) has produced the most comprehensive study on error gravity, in which he points out that it is not possible to assign specific weights or values to specific errors because factors such as receiver (or listener) characteristics (age, experience, education, and so on), the context of the communication, and the social roles or status of the speakers all play a role in the success or failure of particular communicative acts. In the research reviewed and carried out by Johansson, several clear conclusions emerge, which are summarized in Figure 1.

FIGURE 1

Most Interference

↑
      Phonological error
        Prosodic error
        Segmental error

      Semantic error
        System-free*
        System-bound*

      Syntactic error
        System-free*/global
↓
        System-bound*/local

Least Interference

Note: *These terms are the present authors' and refer to the degree to which the erroneous item is constrained within the linguistic system. *System-bound* items are members of small sets with many constraints on their occurrence (e.g., *He was swimming in the* _____. *Judy take __ the bus every day.*). *System-free* items are members of large sets with few constraints (e.g., *He has a* _____. *Bill came here* _____.).

Johansson makes two other important observations. One is that a learner's status as a non-native speaker contributes both to success and to failure in communication. The failure is accentuated by the faultier

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form of the message produced by the non-native, but because native-speaker interlocutors work harder to understand such faultier messages, the overall success of the communicative effort may be facilitated (1978:8). The second observation is that topic or content adequacy can override errors in form, and for most native-speaker interlocutors, comprehension of content is the overwhelming consideration (Johansson 1978:17).

This last consideration is strongly echoed by Ludwig in her review of research on error significance (1982), in which she examines research on irritation as well as on comprehensibility. The distinction is sometimes confusing, since the two are said to be covariant, but Ludwig says that irritation is "the result of the form of the message intruding on the interlocutor's perception of the communication" (275). In irritation studies, vocabulary errors or errors combining problems in vocabulary and syntax have been found to result in the most irritation (Ludwig 1982:276), but there is a wide range of difference in the results obtained by the studies Ludwig cites. She concludes her review with some implications for teaching, recommending, in general, a pedagogy which calls for a greater use of realistic language-use activities in the classroom.

Treatment

There have been few controlled studies of the treatment of learner errors in or out of the classroom. Allwright (1975) has demonstrated the inconsistency with which errors are generally treated in the classroom. Methodological recommendations have ranged from correction of all discernible errors to a relatively tolerant attitude toward learner errors. Learners themselves tend to state a preference for a great deal of overt correction (Cathcart and Olsen 1976, Conrad 1982). Hendrickson has done some research into the effectiveness of specific intervention techniques (1976, 1977) and has summarized his work and that of others (1978). He points out that communicatively interfering, stigmatizing, and high frequency errors are the most likely candidates for treatment (1978:342). Most direct methods of intervention, in which a teacher points out and explains or corrects the error, have been shown to have little or no effect on the production of error by learners (1978:393). At present, no methods of intervention have been demonstrated to have a significant effect in decreasing learner error, although both Hendrickson (1978:396) and Ludwig (1982:281-2) have made recommendations. Conrad's work, referred to earlier, demonstrates that even low-level learners are capable of using interactionally embedded repair techniques to correct both form and content.

In summary, error is inevitable in the process of language acquisition. Most of the errors that learners produce result from incomplete but gradually increasing control over a new linguistic system. Other errors probably result from some kind of interference from the learner's first language through processes not yet well understood. There are marked differences in the amount of interference that different errors and error types contribute to communication. Phonological errors are probably the most serious and syntactic the least (Johansson 1978:47 and 68), but context and the compounding of error play important roles in the communicative effect of error. While learners often request overt correction of most or all errors, there is evidence that such direct intervention is not very effective. Some feedback on formal adequacy is almost certainly required for acquisition to continue, and there is some evidence to suggest that learners are able to utilize meaning-based, interactionally modulated repair techniques, which acquisition theory suggests are the most useful form of feedback. Affective factors also play a significant role in the persistence of error (i.e., *fossilization*) and in the effectiveness of various intervention techniques.

SOCIAL AND AFFECTIVE FACTORS

Following the fundamental work of Gardner and Lambert (1972 and 1973) and Larsen and Smalley (1972), a good deal of speculation, and some research, has focused on the role of attitudes, motivation, and affective factors in language acquisition and learning. Gardner and Lambert established that learners' attitudes toward the society or culture connected with the language being learned can strongly affect success in learning the language. Motivation, which is difficult both to define and to measure, may play a role in the success of formal learning more than in informal acquisition (Krashen 1981:28). Gardner and Lambert's claim that *integrative* motivation (learning so as to become similar or closer to the new culture and society) would be a greater contributor to success in learning a second language than *instrumental* motivation (learning so as to achieve some goal through a possibly limited use of the new language) has been brought into question by Lukmani's (1972) research.

The work on social and affective factors in the last ten years can be viewed through the taxonomy developed by Schumann to categorize the many factors he has identified as playing a role in the success or failure of learners he has studied (J. Schumann 1976 and elsewhere). The categories relevant here are:

1. **social factors**, such as the relative size of language groups, and social attitudes between groups

2. **affective factors**, such as language and culture shock, and motivation
3. **personality factors**, such as self-esteem, and sensitivity to rejection.

While there are many other factors that affect language acquisition, it is generally agreed that the above three are the major ones. The problem has been to evaluate these factors quantitatively. Oller (1981) attempted to do this for one factor, motivation, and demonstrated that adequate measuring instruments are lacking. J. Schumann (1978) suggests a number of experimental studies, none of which, to our knowledge, has been undertaken.

Guiora and his colleagues (Guiora, Brannon, and Dull 1972, Guiora, Paluzny, Beit-Hallahmi, Catford, Cooley, and Dull 1975) have done work on empathy and what they call *ego boundaries*. They suggest that language teaching make a greater effort to reduce these boundaries to facilitate language learning, and Clarke (1976) provides a useful theoretical perspective on the relationship of language learning to culture shock.

There is general agreement within the field that social and affective factors have a major effect on who learns languages and how well they learn them. While the present authors have heard an anecdotal argument that educated learners can overcome attitudinal and affective barriers through the force of intellect, recent diary studies (F. Schumann 1980, F. Schumann and J. Schumann 1977) and the work of Stevick (1976, 1980, 1982) suggest that attitudinal and affective factors play a lesser role in formal learning than in informal acquisition but that, for all language learners, affective factors influence the ability to use new languages spontaneously and effectively.

Many recent developments in approach and methodology have been motivated by a recognition of the need to reduce affective barriers to language acquisition, what Krashen (1978) calls the "affective filter" after Dulay and Burt's "affective delimitor" (1977:99). These developments range from methods such as Suggestopedia (Lozanov 1979) and Counseling-Learning (Curran 1968, 1972, 1976, 1978) to many of the valuable techniques and materials produced by humanistic language teachers (Moskowitz 1978, for example), and to more general suggestions offered by Stevick (1976, 1980, 1982).

CONCLUSIONS

Historically, fashions in language teaching have often been based on the prevailing perspectives of linguistics and psychology. It is only recently that research in second language acquisition has developed as an independent field. Just as the oft-repeated mistake of the past was to rush into the classroom with the latest results of linguistic research,

so it would be a mistake now to assume that all recent language-related research has a *direct* application in the classroom. However, evidence from empirical research and from informal observation strongly suggests that language instruction can be made more effective in the sense that learners can be led to an improved ability to use or apply knowledge of the new language and to an improved ability to continue learning on their own.

Rather than go directly to the classroom, we offer here a set of principles, based on the research reviewed above, that can help guide decisions regarding classroom practice.

Principle 1. Language instruction which has as its goal functional ability in the new language should give greater emphasis to activities which lead to language acquisition than to activities which lead to formal learning.

It is undeniable that instruction in the forms of a new language can result in language learning and, to some extent, language acquisition. But the shortcoming of formal instruction is its relative inefficiency in helping students become effective users of the language outside of instructional settings. If recent research is correctly interpreted, instructional activities and experiences that foster language acquisition can overcome much of this shortcoming. When complemented with formal learning activities, classroom activities leading to language acquisition, we are suggesting, can help learners become more competent users of a new language and more open to acquiring more of the language independently.

Traditional classroom learning activities have tended to have correct production and even conscious ability to describe particular language forms or structures as goals. Acquisition activities concentrate on input and interaction. Instructors who are attempting to foster language acquisition must concentrate on providing experiences for the students in which there is a great deal of language input, language which is both comprehensible and meaningful and which is presented in an activity context which encourages attention and involvement. Meaningfulness is facilitated by the reality of the subject matter (Taylor 1982) and by having "life" rather than "language learning" as its content (Fanselow 1977). Interaction allows students to modulate the input they receive to increase its comprehensibility and to test the hypotheses they are forming about the new language.

It is the opinion of the authors that the reason why more acquisition activities are not being used in instructional programs is that few well-structured activities have yet been developed. While there are many collections of activities that attempt to make instruction more active

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and student-centered, or that attempt to increase the quantity of learner production, few instructional materials have been produced which meet the criteria of providing comprehensible input and supporting it with meaningful interaction. Recent work by Krashen and Terrell (1983), Taylor (1983), and the collection of work edited by Johnson and Morrow (1981) is beginning to shape our understanding of what such materials should look like, but there remains a dearth of actual instructional material.

Principle 2. Because negative affect, in the form of the affective filter, seems to be a major impediment to success in language acquisition and learning, instruction should make the minimizing of such affective interference one of its primary goals.

Along with the goals of providing input and interaction, language instruction must attempt to lower students' affective resistance to acquiring the new language. There are two aspects to this problem— the methodology of instruction and the content of instruction. Stevick has addressed the methodological issue at length (1976, 1980, 1982), and a valuable review of the role that methodology can play in lowering affective resistance has been provided by Taylor (1983). Specific instructional activities have been developed by Moskowitz (1978), Christison and Bassano (1981), and others.

In general, an affectively positive or supportive classroom is one in which students are encouraged to initiate and sustain real communication and to take risks in using the new language in that communication. The encouragement is provided by carefully defining the instructional task or activity, preparing the students for it, and assisting and supporting the students in carrying out the activity by providing resources and feedback as they need them.

Principle 3. Language instruction must make greater use of the learners' own abilities to acquire language from natural interaction.

Language instructors have tended to mistrust or undervalue the role that natural, non-instructional interaction plays in the language acquisition process. Instructors may mistrust natural interaction because they feel it does not provide enough feedback on the accuracy of student production. Instructors may also believe that meaningful interaction is not possible in a second language until a sound basis in the forms of the language has been achieved. But meaningful interaction is crucial if students are to develop functional ability in the new language (Carroll

1967, Saegert, Scott, Perkins, and Tucker 1974), and there is considerable evidence that such experience is possible and beneficial, even at very low levels of second language ability.

What research into the structure of interaction, the turn-taking mechanism, and the techniques of repair supports is the view that learners have a predisposition to interact under the proper circumstances (usually not a traditional language classroom), that they are well aware of the general structure of interaction, and that they can make use of the repair mechanisms available to competent speakers to increase the comprehensibility of the input being provided to them and to improve the accuracy of their own production. By structuring interaction so that the settings, the purpose, and the participants' roles are as natural as possible, so that the informational content is the focus of the interaction, and so that the interactants are willing and able to provide feedback in the form of repair, natural interaction can be made a beneficial part of a language instruction program.

Principle 4. Error produced in the process of acquiring a second language should be viewed as a natural product of the acquisition process, as a source of information on learner strategies, and as a problem best addressed through more input and interaction rather than through correction and drill. To concentrate on developing students' abilities to monitor their production, or to enforce correction while students are engaged in interaction or production, should be regarded as counter-productive.

In any behavior, there is a balance between how much is done and how or how well it is done. Traditional language teaching has emphasized the latter at the expense of the former by equating success with accuracy or mastery of form. In language or in communication, success is determined just as much by how rich and flexible one's linguistic resources are. In language learning, there is increasing evidence that accuracy develops more efficiently when it is viewed as one element in a communicative effort, an overall effort which includes meaningfulness, appropriateness, creativity, and reality. To treat accuracy as usage, the socially approved choice of language forms, is less valuable to learners than teaching accuracy as instrumental to the successful accomplishment of a larger communicative task.

Some specific recommendations which we believe are called for in the treatment of error are:

1. Teachers should attempt to analyze students' behavior to determine which errors are signs of incorrect learning, which errors seriously interfere with comprehensibility, and which errors are inappropriate at the learners' stage of development. These errors should be

distinguished from those errors which are simply signs of incomplete learning, those which do not interfere with communication, or those which are persistent for all learners. The first types are candidates for treatment, the second probably not.

2. Because language users' ability to monitor for formal accuracy is limited in scope and effect, teachers should expect conscious control only over those few features of the language that are subject to monitoring (i.e., a few salient surface features, generally only in the written mode).

3. Because direct methods of error correction (identification, explanation, correction) have not been shown to be effective, teachers should encourage more indirect methods of error improvement, possibly employing peers, and generally assisting and encouraging students to use communicatively and interactionally modulated repair and clarification techniques to improve accuracy.

4. Teachers should be aware that many aspects of error are affectively determined. Pronunciation errors especially, but many other errors as well, serve to mark the learner's identity as a non-native speaker, a status that is often psychologically reassuring and interactionally advantageous. Teachers must also realize that they are often unrealistically harsh judges of accuracy (Ludwig 1982:280) and that naive listeners tend to focus on content more than on form. One mistake should be avoided. In Ludwig's words, "Too often students and teachers mistakenly relate linguistic accuracy with increased social acceptance, thinking that if they could speak and write with fewer mistakes, then people would like them more . . . However, the data indicate that cultural stereotypes aside, each L2 user is regarded as an individual with his or her own personality and opinion, neither of which is judged on linguistic criteria in the mind of the native speaker" (1982:282).

5. Teachers can identify for learners those modes of language use in which formal accuracy is more important (e.g., academic writing, possibly) and teach editing skills and the use of reference works and feedback resources to assist the learners in achieving accuracy in those contexts.

The conclusion to be drawn from this consideration of error is that formal correctness should be accorded a place somewhat lower on the instructional scale than it has traditionally had—not abandoned, but viewed as secondary to instructional experiences which call for independence and risk taking on the part of students, and greater openness on their part to feedback from others.

In conclusion, practice in language teaching has characteristically developed from theory or from accumulated classroom experience. Both are excellent sources of direction. What we have attempted to do in this article is to emphasize a third basis for direction and evaluation in language teaching—empirical research into language acquisition and language use. In concluding, we return to the comment made earlier that not all of what is discovered about language and language learning is *directly* applicable to the classroom. By suggesting four general principles to guide language teaching, we hope that evolving practice will help determine and refine empirically sound and coherent teaching practice aimed at developing functional ability in second language learners.

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