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Motivation: Reopening the Research Agenda

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Discussion of the topic of motivation in second-language (SL) learning contexts has been limited by the understanding the field of applied linguistics has attached to it. In that view, primary emphasis is placed on attitudes and other social psychological aspects of SL learning. This does not do full justice to the way SL teachers have used the term motivation. Their use is more congruent with definitions common outside social psychology, specifically in education. In this paper, we review the standard applied linguistics approach to this topic, and go on to provide an overview of research into motivation in mainstream education. This is used both to demonstrate the utility of other concepts of motivation to the SL field and as the basis for a research agenda for SL investigations of motivation thus conceived.

Motivation is not currently the subject of extensive investigation in applied linguistics, despite the interest that

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many teachers have in it. Although there is intermittent discussion of social-psychological explanations of second-language (SL) learning in major journals (Soh, 1987; Svanes, 1987; Au, 1988) and introductory texts on SL learning inevitably contain a chapter or subunit on the topic of motivation (Dulay, Burt, & Krashen, 1982; Stern, 1983; Ellis, 1985; Klein, 1986; Brown, 1987; and cf. Skehan, 1989), one indication of the current lack of research emphasis in this area is the fact that the discussion of motivation in such texts is curiously isolated from broader theoretical concerns. In second-language acquisition (SLA) theory, motivation is typically grouped together with various aspects of personality and emotion as miscellaneous "affective" factors that *may* play a role in acquisition. Current SL discussion on this topic lacks validity¹ in that it is not well-grounded in the real world domain of the SL classroom, nor is it well-connected to other related educational research (though this should be particularly important in an interdisciplinary area). In this paper, we first review the limitations in what the SL research community has generally termed "motivation". Then we note the difference between the way the term has been used by SL researchers and how it is used by teachers. Taking these two points as indicative of the problematic nature of this area of work at present, we then go on to review educational and psychological research on the topic that should influence SL studies. We conclude by setting out an agenda for research that might improve the current understanding of this topic in the SL field.

THE TRADITIONAL SL APPROACH TO MOTIVATION

All approaches to describing the role of motivation in SL learning have shared, in varying degrees, two limiting features. First, the major approaches have been social-psychological. Motivation has been consistently linked with attitudes toward

the community of speakers of the target language, with an interest in interacting with such speakers, and with some degree of self-identification with the target language community. The most influential work in the field has been that of Gardner and Lambert and their associates in Canada, beginning in the 1950s and continuing to the present (Gardner & Lambert, 1959, 1972; Lambert, 1967; Gardner, 1968, 1980, 1983, 1985, 1988; Gardner, Clément, Smythe, & Smythe, 1979). Other models of the relationship between motivation and SL learning, all of which have been heavily influenced by the work of Gardner and Lambert and which maintain the social-psychological perspective, include those of Schumann (1978a, 1978b, 1986), Giles and his associates (Giles & Byrne, 1982; Beebe & Giles, 1984; Beebe, 1988), and Krashen (Dulay et al., 1982; Krashen, 1985).

Second, despite the traditional tripartite distinction between cognition, motivation, and affect (Isen, 1984), all of these lines of SL research have tended to group affect, especially attitudes, and motivation together. As Ellis (1985) has observed, there has been no general agreement on definitions of motivation and attitudes or of their relation to one another (p. 117). Consequently, the term motivation has been used as "a general cover term—a dustbin—to include a number of possibly distinct concepts, each of which may have different origins and different effects and require different classroom treatment" (McDonough, 1981, p. 143).

GARDNER'S APPROACH TO MOTIVATION

Gardner & Lambert (1959) first made the distinction between integrative motivation and instrumental motivation that has influenced virtually all SL-related research in this area. Motivation is identified primarily with the learner's orientation toward the goal of learning a second language. Integrative motivation is identified with positive attitudes toward the target language group and the potential for inte-

grating into that group, or at the very least an interest in meeting and interacting with members of the target language group. Instrumental motivation refers to more functional reasons for learning a language: to get a better job or a promotion, or to pass a required examination.

Integrative motivation has often been held to be a superior support for language learning. Gardner (1979) suggested a link between integrative motivation and additive bilingualism, and between instrumental motivation and subtractive bilingualism. In a number of studies, Gardner found that success or failure in learning French in Canada was associated with whether students wanted to become part of French culture, as opposed to learning French for only instrumental reasons. Gardner has also been primarily responsible for the continued development of this model of motivation in SL learning. This has included the development of a battery of testing instruments, the Attitude/Motivation Test Battery (AMTB, Gardner et al., 1979; Gardner, 1985), which has stimulated a large number of empirical studies, and has resulted in attempts to synthesize the results of such studies into a revised model that Gardner now calls the socioeducational model (Gardner, 1979, 1980, 1985, 1988).

Gardner's socioeducational model continues to stress the idea that languages are unlike other school subjects in that they involve learning aspects of behavior typical of another cultural group, so that attitudes toward the target language community will at least partially determine success in language learning. The model differentiates among (1) cultural beliefs arising from a social milieu, (2) motivation as a source of individual differences in language learning, (3) formal and informal learning situations, and (4) linguistic and nonlinguistic outcomes. These elements of the model are considered to be causally linked, on theoretical and empirical grounds (Gardner, 1985). As suggested by Au (1988), the socioeducational model can be summarized in terms of five hypotheses:

1. *The integrative motive hypothesis*: an integrative motive will be positively associated with SL achievement.
2. *The cultural belief hypothesis*: cultural beliefs influence the development of the integrative motive and the degree to which integrativeness and achievement are related.
3. *The active learner hypothesis*: integratively motivated learners are successful because they are active learners.
4. *The causality hypothesis*: integrative motivation is a cause; SL achievement, the effect.
5. *The two-process hypothesis*: aptitude and integrative motivation are independent factors in second language learning.

The degree to which empirical studies support these hypotheses is controversial. Three attempts have been made to synthesize research findings, by Oller (1981), Au (1988) and by Gardner himself (1985). Criticism of the model has focused on the integrative motive hypothesis and the causality hypothesis.

It is not clear that the superiority of integrative motivation is supported by the empirical evidence, because contradictory results have emerged from studies in different contexts. As summarized by Oller and Au, the results from such studies have included every possible relationship between various measures of integrative motivation and measures of proficiency: positive, nil, negative, and uninterpretable or ambiguous (Au, 1988). Other studies have found correlations that disappeared when other influences such as age were statistically controlled (Oyama, 1978; Purcell & Suter, 1980). Oller (1981) suggests that such results indicate that the relationship between affective factors and motivation, on the one hand, and language learning, on the other, may be "an unstable nonlinear function that varies greatly across individuals, contexts, and learning tasks" (p. 15). In addressing these criticisms, Gardner (1985) has acknowledged that the patterns of relationships among attitudinal and motivational variables and learning outcomes found in various studies have been relatively un-

stable, and agrees that no link necessarily exists between integrative attitudes and language learning, because "not everyone who values another community positively will necessarily want to learn their language" (p. 77). Gardner (1988) continues to maintain that across a large number of studies there have been, in most cases, significant correlations between at least some aspects of the integrative motive and some aspects of SL proficiency, while acknowledging that integrative motivation "is not the only factor involved in second-language acquisition, and it does not account for all of the variance in second-language achievement (by a long shot)" (p. 106). Gardner (1988) does not currently claim that integrative motivation is superior to instrumental or any other type of motivation, but simply that those who are integratively motivated will probably be more successful in language learning than those who are not so motivated (p. 106).

With regard to the causality hypothesis, numerous researchers have proposed that achievement might actually be the cause instead of the effect of attitude (Savignon, 1972; Burstall, Jamieson, Cohen, & Hargreaves, 1974; Backman, 1976; Hermann, 1980; Strong, 1984). Successful SL learners might tend to acquire positive attitudes toward both language learning and the target language community as a result of doing well, whereas relatively unsuccessful learners might acquire negative attitudes.

Gardner's response to this criticism (Gardner, 1980, 1985, 1988) has been that whereas existing research demonstrates associations and cannot provide unequivocal answers to causal questions, his own review of the extensive literature assessing the modification of attitudes as a result of participating in various SL programs (often an objective of such programs) indicates "no support for the notion that achievement influences the nature and amount of attitude change" (Gardner, 1985, p. 99).

In his current version of the socioeducational model, Gardner (1985, 1988) points out repeatedly that motivation for

language learning includes not only goal orientation, but also (1) the desire to learn the language—whatever the reason, (2) attitudes toward the language-learning situation and the activity of language learning, and (3) effort expended achieving such goals. What is not often noticed or commented upon, however, is that the "integrative motive" in Gardner's more recent model (Gardner, 1985, 1988) is no longer equivalent to attitude toward the target language community and is not equivalent to a score on the integrative orientation subscale of the AMTB or any other subscale of the AMTB. Rather, it is a label applied to a factor analytic reduction of the data obtained for a particular sample, and refers to a factor to which scores from many different subscales of the AMTB have contributed. Because the various attitudinal and motivational measures that contributed to the operationalization of integrative motive vary, there is no constant definition of integrative motivation across studies; and in any particular study the contribution of "integrative attitudes" to what is called "integrative motivation" may be quite small. (See Gardner, 1985, pp. 62–74, for discussion of the ways in which "integrative motive" has been defined in various studies, in each case being used as the label for a factor that includes a variety of attitudinal and motivational measures.

It should also be noted that the "motivational intensity" scale of the AMTB appears to be a poor measure of the degree to which learners are actually motivated to learn. Chapelle and Roberts (1986) conducted a study with Spanish and Arabic learners in an intensive English program, and found significant negative correlations between scores on the motivational intensity score and all eight measures used to measure language proficiency. One reason suggested by Chapelle and Roberts for this finding is that the measure was validated using Anglophone students in a foreign-language situation and that international students may respond differently to questions of effort. Alternatively, it may reflect the unreliability of self-report measures in general. Schumann (1978b) explicitly discounted the positive responses of his subject "Alberto," an adult Spanish-speaking

learner of English, on a self-report measure of motivation because aspects of his life-style contradicted his claims of being strongly motivated to learn English.

OTHER APPROACHES TO MOTIVATION AND SL LEARNING

Speech Accommodation Theory shares with Gardner's socioeducational model a social-psychological approach to the relationship between motivation and SL learning. Giles & Byrne (1982) have presented a model in which motivation, defined primarily in terms of identification with the target language community, is crucial for SL learning, thus agreeing with Lambert (1967) and Gardner (1979). In contrast to Gardner's model, which is intended to account for language learning in a school context, speech accommodation theory is not limited to the educational context (nor to acquisition, because it encompasses style shifting in linguistic performance as well), but it is restricted to explaining the linguistic behavior of members of subordinate groups.

As outlined by Beebe (1988), speech accommodation theory stresses ethnolinguistic vitality and its relationship to an individual learner's self-concept. The particular contribution of the model has been the delineation of theoretical scenarios for success or failure in SL learning, based on factors related to in-group identification, in-group vitality, and group boundaries. The model has not been sufficiently tested to permit evaluation, and there have apparently been no studies dealing with the motivational component of the model, or its effects on acquisition.

Schumann's Acculturation Model (Schumann 1975, 1978a, 1978b, 1986), expressly restricted to SL learning in a naturalistic setting, also emphasizes the importance of some level of integrative motivation, predicting that learners will acquire the second language only to the degree that they acculturate to the SL community. Instrumental/integrative motivation is seen as one of many social and psychological factors contribut-

ing to the construct of acculturation in this model. Schumann argued that Alberto failed to learn English because of psychological and social distance from target language speakers, and that learners with limited functional reasons for language learning (instrumental motivation) are likely to develop the type of pidginized language exhibited by Alberto. Other studies undertaken within the context of the acculturation model have failed to provide strong support for the model. Two possible reasons for this have been suggested by Schumann himself (Schumann, 1986). First, it may be impossible to gain consensus on the definitions (or operationalizations) and relative importance of the numerous variables subsumed under "acculturation" to test the model. Second, the effects of affect may be indirect and variable, and thus difficult to test.² (For further criticism of the model, see McLaughlin, 1986; Larsen-Freeman & Long, 1991)

Thus, Schumann appears to have abandoned his earlier claim that acculturation is the major causal variable in SLA, demoting the concept to one that acts only as a remote cause in a chain of factors. In his current view (Schumann, 1986), the importance of acculturation, including the factor of motivation is that it brings the learner into contact with TL (target language) speakers; verbal interaction with those speakers results in the negotiation of appropriate input, the immediate cause of language acquisition.

As a result of the focus on input, Schumann's acculturation model can be linked to Krashen's well-known Monitor Model of SLA (Krashen 1981, 1982, 1985), and particularly to that part of the model known as the "input hypothesis". Yet Krashen, unlike Schumann, does not see the primary role of motivation in SLA as tied to the provision of comprehensible input. Instead, motivation is seen as a component of the "affective filter". "The filter is that part of the internal processing system that subconsciously screens incoming language based on . . . the learner's motives, needs, attitudes, and emotional states" (Dulay, Burt, & Krashen, 1982, p. 46). Elsewhere, Krashen (1982) has

referred to the filter as something that prevents input from reaching "that part of the brain responsible for language acquisition, or the language acquisition device" (p. 31). It should be noted that (as in Schumann's model), motivation is treated as a component of some more encompassing concept, and that once again, it is seen as affect.

The concept of the affective filter has been considered by many to be the weakest part of Krashen's theory of SLA (Gregg, 1984; Pienemann & Johnston, 1987) for a number of reasons, including notably (1) from the point of view of theoretical adequacy, the affective filter hypothesis may make the monitor model unfalsifiable; (2) Krashen has provided no explanation of why the filter is hypothesized to operate in adults but not in children; (3) the concept appears close to that of a "mental block," and thus has more connections to popular than scientific psychology. Even the general concept of filters has been criticized as misleading when applied to psychological processes. Although a filter in information theory is any input-output device that prevents some of the information in the input from having an effect on the output, from a psychological point of view, selection is an active process, mediated by attention, rather than a passive one (Neisser, 1976).

INTERIM SUMMARY

The popularity of the integrative-instrumental contrast, together with the existence of standardized measures, has meant that this particular concept of motivation has tended to dominate all other ways of looking at the idea in the SL field.³ The past represents an extensive line of work focused primarily on social attitudes, a distal factor, rather than on motivation per se. Research on the question of integrative versus instrumental attitudes, motivation (not directly measured) and proficiency has produced results that are mixed and difficult to interpret, so the best that can be said is that different attitudes and goal orientations seem to be important, but in ways that

vary from situation to situation. For many SLA theorists, objections such as those advanced by Oller (1981) and by Au (1988) add up to serious reservations regarding "the whole question of attitude as a predictor of any kind" (Pienemann & Johnston, 1987, p. 58).

Ellis (1985) has pointed out that it is not at all clear how motivation affects learning. In this respect, we find valuable Schumann's comment that motivation is important because it spurs learners to interact with target language speakers. We also agree with Gardner's focus on the active learner. Gardner has pointed out the essential difference between his model of motivation and Krashen's concept of the affective filter: "That is, rather than assume that integratively-motivated individuals somehow find it easier to take in linguistic material, it seemed more parsimonious to hypothesize that they simply put more of themselves into the language learning task" (Gardner, 1988, p. 113).

In the past, suggestions such as these have not received much attention, partly because of the focus within SL learning theory on issues such as acquisition orders, developmental sequences, the role of Universal Grammar (biologically specified), and other matters over which language learners are presumed to exercise no choice. However, there are many aspects of SL learning that are subject to active choice. In various learning contexts, one may be able to choose to take a course or not, to pay attention in class or not, to re-enroll or drop out, to study for an hour or two or not at all, to master the lexicon of one field rather than another, to talk to native speakers on particular occasions or to let the opportunity pass, and to persist in the struggle to communicate meanings in a second language or not. However, in the future, the field seems likely to accept that the successful SL learner is very involved in learning, both at the metacognitive level at which general executive functions or strategies such as planning (Crookes, 1988, 1989) and the allocation of attention (Schmidt, 1990) apply, as well as at the level of task-specific, cognitive strategies

(O'Malley, Chamot, Stewner-Manzanares, Russo, & Kupper, 1985). As these issues receive increasing attention, it seems reasonable that motivation, as it controls engagement in and persistence with the learning task, should also be considered worthy of renewed scrutiny.

NON-SL APPROACHES TO MOTIVATION

PRACTITIONERS' USAGE

We have referred to the invalidity of SL treatments of motivation in terms of their distance from everyday, nontechnical concepts of what it means to be motivated. When teachers say that a student is motivated, they are not usually concerning themselves with the student's reason for studying, but are observing that the student does study, or at least engage in teacher-desired behavior in the classroom and possibly outside it. Most teachers wish to motivate students (Choy, 1977; Fransson, 1984; Marshall, 1987; McDonough, 1981), and attempt to do so in a variety of ways, of which altering attitudes to the subject matter is just one. In general, it is probably fair to say that teachers would describe a student as motivated if he or she becomes productively engaged in learning tasks, and sustains that engagement, without the need for continual encouragement or direction. They are more concerned with motivation than affect. This teacher-validated use of the term motivation has not been adopted by SL investigators, but it is very close to the concept of motivation that has been substantially explored outside SLA, particularly in social and educational psychology.

MOTIVATION IN PSYCHOLOGY

Early psychological discussions of motivation centered on the concept of instinct, and subsequent development of the topic

during most of the first half of this century concentrated particularly on organic survival-oriented needs, or "drives" (Woodworth, 1918; Hull, 1943). A less physiological treatment of the topic appeared early in social psychology, following the work of Lewin (1951), but motivation was slower than were other areas of psychology to recover from the influence of behaviorism. In recent decades, there has been a reformulation of approaches to motivation (Ball, 1984) following particularly the work of Atkinson (1964), McClelland (1965), and Weiner (1972). Most recent psychological theories still maintain a tripartite distinction among cognition, motivation, and affect (Kuhl, 1986).

What then, in current psychology, is motivation? A simple definition⁴ is provided by Keller (1983): "Motivation refers to the choices people make as to what experiences or goals they will approach or avoid, and the degree of effort they will exert in that respect" (p. 389).

Maehr and Archer (1987) point out some key behavioral aspects of motivation. First is direction, which refers to carrying out one among a set of activities, or attending to one thing and not another, or engaging in some activity and not others. Second is persistence, which means concentrating attention or action on the same thing for an extended duration. Third is continuing motivation, which is returning to previously interrupted action without being obliged to do so by outside pressures. Fourth is activity level, which is more or less equivalent to effort, or intensity of application.

Keller's (1983) education-oriented theory⁵ of motivation identifies four major determinants of motivation: (1) interest, (2) relevance, (3) expectancy, and (4) outcomes.⁶ The first of these, interest, in cognitive terms is a positive response to stimuli on the basis of existing cognitive structures such that learners' curiosity is aroused and sustained. The second, relevance, is a prerequisite for "sustained motivation [and] requires the learner to perceive that important personal needs are being met by the learning situation" (1983, p. 406). The

most basic of these is what Keller calls "instrumental needs," which are served when the content of a lesson or course matches what students believe they need to learn. Relevance arises also out of the way human beings need to learn (and how they need to behave in social situations in general). Keller observes that humans have needs for achievement, for affiliation, and for power. That is to say, we like to be successful, and usually find activities in which we can achieve success pleasurable. We like to establish ties with people—solitary activities often being less valued—and adults are accustomed to and desire a measure of control over the situations in which they find themselves. The third heading, expectancy, draws upon research based on the concepts of locus of control, expectation for success, and attributions concerning success or failure. In general, learners who think they are likely to succeed are more highly motivated than are those who expect to fail; those who think they control their own learning and attribute success or failure to their own efforts are more motivated than are those who attribute outcomes to external causes such as luck, a teacher's moods, or the difficulty of a task (Deci, 1975; Keller, 1983; Pintrich, 1989). Finally, there is that determinant of motivation which is perhaps the most traditional: reward or punishment, or outcomes. Activities for which the motivating forces are outcomes have been referred to as extrinsically motivated, as opposed to those which are intrinsically motivated (e.g., Deci, 1975).

IMPLICATIONS OF CURRENT CONCEPTS OF MOTIVATION FOR SL LEARNING

A thorough understanding of the interface between motivation and SL learning requires viewing language development broadly. Relevant limitations to SL research and theory until recently have been the lack of attention to classroom learning and a shortage of long-term studies. There has also been a noncognitive approach stemming from a tendency to see SL

learning as unconscious and therefore difficult to reconcile with the concept of motivation, which is associated primarily with effort, choice, voluntary behavior, and other phenomena associated with consciousness. Together, these may explain why theories such as Lambert's social psychological model and Giles' accommodation theory have simply posited a connection between attitudes/affect and language learning outcomes without any discussion at all of intervening psychological processes of learning, whereas the role of motivation in Krashen's theory is limited to that of part of a filter on unconscious processes. In contrast to these positions, we see SL learning as an extended process, often taking place both inside and outside the classroom over a number of years; and above all, as one in which the learner takes an active role at many levels of the process.

In this section we will review the connection between motivation and SL learning, analyzed in terms of the following levels: (1) the micro level, which deals with motivational effects on the cognitive processing of SL stimuli; (2) the classroom level, dealing with techniques and activities in motivational terms; (3) the syllabus level, at which content decisions come into play; and (4) considerations relevant to informal, out-of-class, and long-term factors. In doing so, we will in some instances show how motivation is already actually accepted as important in SL learning (even though ignored by SL researchers). In other areas we will summarize mainstream educational research, with a view to indicating how motivation may affect SL learning. We wish to show the reader that evidence already exists for the importance of motivation for SL learning. We also wish to make a preliminary identification of areas in which research is both needed and justified, either to substantiate the applicability of education studies of motivation to SL learning, or to extend the existing preliminary developments of a language-specific nature. This section provides the foundation for a research agenda, a much more abstract approach to which is then outlined below in *An Outline for the Research Agenda*.

THE MICRO LEVEL

In SL learning, engaging in a language learning activity provides input. In addition to the external factor of input, the importance of attention in SL learning has been emphasized by McLaughlin, Rossman, and McLeod (1983), and more recently by Scovel (1989), who has proposed a model of SLA containing 12 interacting variables or factors. In Scovel's model, the attention interface is central: all components influence the amount of attention paid to all other components at any point in time, and attention affects the importance of each component. Schmidt (1990) has claimed that attention to input is a necessary condition for language learning and that what learners attend to and become aware of (i.e., notice) is what becomes intake (Corder, 1967; Chaudron, 1985).

The link between attention and motivation is extremely close; indeed, definitions of motivation (e.g., Maehr & Archer, 1987) often refer to attention and persistence as the behavioral manifestations of motivation. Organizing, planning, and completing tasks (other behavioral aspects of motivation) equally imply the allocation of attentional resources.

Allocation of attention may be voluntary; (for example, when you decide to pay attention to something and do so) and it is this kind of voluntary control of attention for which motivational factors are most obviously relevant. In other cases, attention is not entirely under voluntary control, because what one pays attention to at a particular time is constrained by such factors as frequency, perceptual salience, linguistic complexity, skill level, and task demands (Schmidt, 1990). In addition, allocation of attention may be involuntary, as when events capture our attention. However, attention theorists, although not often invoking the concept of motivation per se, have stressed that even when attention is not deliberately allocated to a particular stimulus, factors such as interest, dispositions, goals, intentions, and expectations remain important determinants of the focus of attention (Kahneman, 1973; Kihlstrom, 1984; Baars, 1988).

The motivation/attention interface has been investigated in a series of studies summarized in Eysenck (1982). In a representative study, participants were told that a monetary reward would be given for recall of (first language) vocabulary items (a high-incentive condition), or would be given for only some items (a "mixed list" condition), or for none (low-incentive condition). The typical finding was "that high-incentive items are significantly better learned than low-incentive items with mixed lists, but there is no incentive effect with unmixed lists" (Eysenck, 1982, p. 69). This results from differing rehearsal of items in short-term memory according to whether or not a reward is expected (Atkinson & Wickens, 1971; see also Loftus, 1972; Cuvo, 1974). In a related study of cued recall of word list items (Eysenck & Eysenck, 1980) there were two different types of cues: those with a sound connection to the learned items and those with a meaning connection. Both connection types could be close (strong) or distant (weak). High incentive items were recalled better than were low incentive items regardless of the type of cue (sound or meaning), but interestingly, "high incentive improved recall to weak retrieval cues but had no effect with strong retrieval cues" (Eysenck, 1982, p. 71-72). Eysenck (1982) infers that "high-incentive words were processed in terms of both readily accessible and less accessible features" (p. 72)—that is, a more extensive kind of processing was taking place for those words that subjects knew were going to be useful, important, or specifically remunerative and that such processing must involve differential allocation of attention. Studies of vigilance also attest to the fact that motivated (i.e., better paid) participants are better able to maintain the necessary levels of alertness over long periods. Knowledge of results is also regarded as motivational. In reaction-time tasks, knowledge of results leads to increased alertness and decreased reaction time (Eysenck, 1982).

The connection from this first-language experimental work on the motivation/attention interface to SL learning exists, first, simply in terms of the likely importance of attention in SL

learning, and second, by way of research on learning strategies. O'Malley et al. (1985) include as important metacognitive learning strategies both "directed attention" (deciding to attend to a learning task and to ignore distractions) and "selective attention" (deciding to attend to specific aspects of language input). It is important to note that language learners appear to have the ability to do this, as shown in studies by Hulstijn and Hulstijn (1984) and VanPatten (1990). In these studies, language learners selectively attended to either language form or language content, simply in response to an experimenter's request. However, individuals will have a difficult time forcing themselves to attend for long to tasks that they perceive as irrelevant (Baars, 1988, p. 235), so it seems likely that other motivational support, such as personal relevance, can be as good a determinant of selective attention. Purcell and Suter (1980) subjected 12 learner variables previously found to be positively correlated with pronunciation accuracy to multivariate analysis, and found that there were only four meaningful predictors of pronunciation accuracy: (1) first language, (2) aptitude for oral mimicry, (3) a composite variable for residency, and (4) strength of concern for pronunciation. We suggest that the relationship between strength of concern for pronunciation and the achievement of pronunciation accuracy is mediated by attention to pronunciation. Formal training focused specifically upon pronunciation was not a predictor variable, suggesting that teacher attempts to focus learner attention on this aspect of language was not successful in the long run.

Further theoretical speculation about the connections among motivation, attention (which we recognize is necessary but not sufficient for acquisition), other cognitive processing factors, and learning outcomes will require much more research. Pintrich (1989) has reported preliminary results from work intended to identify the connections among motivational factors (including value, goal orientation, expectancy, and affective components); cognitive factors (including cognitive

strategies such as rehearsal, elaboration, and organization; and metacognitive strategies such as planning, monitoring, and self-regulation); and learning outcomes in college courses. At present, we know little about the effectiveness of particular learning strategies in SL learning (cf. O'Malley & Chamot, 1990, for review), or their connection with motivation.

THE CLASSROOM LEVEL

Preliminaries: At the opening stage of a lesson, Keller's factor of "interest" may have particular implications for classroom practice. It is possible that interest may be engendered in students partly by remarks the instructor makes about the forthcoming activities. However, Brophy and Kher (1986), in discussing *student motivation to learn* (loosely, classroom-specific aspects of motivation) in content classes have referred to the comparative absence of such remarks. In regular elementary and high-school classes (according to Brophy & Kher, 1986), students demonstrate little motivation, and teachers make little attempt to motivate. Brophy and Kher suggest that students can be socialized to see some aspects of classroom learning as actually engaging and enjoyable, but in the absence of teacher statements to this effect, such a perception is unlikely to emerge in the typical school climate. They conclude:

If the students we have been studying are typical . . . then it appears that there will continue to be little evidence of student motivation to learn in the typical classroom until teachers are trained to socialize such motivation in their students.

(Brophy & Kher, 1986, p. 285)

We would like to think that the picture is not so bleak in SL classrooms (particularly those ESL classes in which motivation arises from the relevance of the content). The point is, however, that even the straightforward framing remarks initiating an activity or the presentation stage of a lesson deserve to be assessed in the light of motivational considerations.

Activities: As mentioned, "relevance," as used by Keller

(1983), deals not only with instrumental needs (ascertained in SL course design through needs analysis, discussed below) but also "personal-motive needs" such as our needs for power, affiliation, and achievement. Emphasizing the need for achievement, Csikszentmihalyi and Nakamura (1989) have defined intrinsic motivation as the kind of motivation that arises when an individual subjectively estimates that his/her skill level is equal to the challenge level, and both are relatively high. When the level of challenge is perceived as higher than the individual's level of ability, the result is anxiety; and when the level of challenge is perceived as lower than the individual's ability, the result is boredom.

Other classroom activities may be justified with reference to the need for affiliation. The various recent "communicative approaches" are characterized by a fairly extensive use of group work,⁷ which has been said to result in greater motivation among students (Long & Porter, 1985). Group work allows students to influence both each other, and also, for example, the sequence of activities followed by a group (Littlejohn, 1983). Collaborative group effort serves the need for affiliation, and makes it easier for a feeling of achievement to be attained, because it removes, to some extent, the need for one individual's achievement to be attained at the expense of another's; the condition that would obtain in more competitive arrangements. It can also be noted that different cultures differently value needs for power, affiliation, and achievement (Sloggett, Gallimore, & Kubany, 1970; Cooper & Tom, 1984). Some cultures allow for individual excellence, with tolerance of competition (sometimes intense) whereas others strive mainly for group excellence (Brislin, Chushner, Cherrie, & Yong, 1986). In some cultural areas, therefore, individuals may feel a great sense of unease if forced to stand out from the group, with associated demotivating effects if classroom SL practices call for this.

Interest is closely related to curiosity, and given standard SL teaching practices, developing curiosity means using less

orthodox teaching techniques and/or materials. (An example of an ESL text which contains exercises that encourage students to express their curiosity about how an SL works is Jones & von Baeyer, 1983.) Also, change is an essential part of maintaining attention, because otherwise habituation will set in. Therefore, a too-regular pattern of classroom routine (as may be produced by adherence to the many traditional SL texts that use the same format for each unit) should probably be avoided.

Feedback: An intriguing aspect of recent developments in this area is the apparent weakness of extrinsic rewards (those imposed or provided from outside). Whereas an emphasis on external evaluation may momentarily enhance performance, it may negatively affect continuing motivation by ruling out the establishment of more intrinsic, task-related goals (Maehr & Archer, 1987). The classic study of Lepper, Greene, & Nisbett (1973) dealt with preschoolers who were offered an opportunity to draw pictures with materials familiar to them from an art class (an activity previously established to be intrinsically motivating). One group got no reward for the activity, one got a surprise reward, and one was shown a reward and told they could win it by performing the activity. Subsequent observation of the children found that those who had experienced the last condition then chose the activity less when it was freely available without any reward. This finding has been extensively investigated: Lepper (1983) cites 47 studies covering all age ranges from preschool to college that bear out the original results.

A related issue concerns the effect of performance goals on behavior. Research suggests that if the goal of individuals is to achieve positive judgments concerning their behavior (i.e., good grades), they will wait until they are certain that their ability is high before displaying it, and will otherwise avoid behavior that could expose them to evaluation (Dweck, 1986). If students actually have learning as an objective, they are more likely to engage in challenging tasks and activities in which errors may be made. That is to say, in SL classrooms, teachers may need

to discourage a concern with grades because otherwise unsolicited participation and risk-taking will be low.

For teacher feedback to be most efficiently used, it needs to be provided not only at the end of an activity, but also at the onset of a similar, subsequent activity (Keller, 1983). In addition, teachers' feedback should be informational, directing the student's attention to what he or she did that resulted in success. In providing feedback, instructors also need to take into account the cultural variation in acceptability of praise or criticism of individuals.

Effects of Student Self-Perceptions: Student expectations of self and self-evaluations of likelihood of success appear to have important motivational effects. As a result of their experiences, some students develop the impression that events are under their control, and that effort will lead to academic success. Others, through repeated failures or through being in situations in which they cannot influence the contingencies of reward conditional on their behavior, have learned that they cannot bring about comfort or success through their actions. These patterns are variously referred to as "locus of control," "self-efficacy," or "learned helplessness" (Bandura, 1982; deCharms, 1984; Weiner, 1984). It seems likely that students who have experienced failure in SL learning (arguably a large proportion of SL learners as shown in Gatenby, 1948/1967; Ingram, 1982) and attribute this to their own inabilities rather than problems with the course or text, are likely to have a low estimate of their future success in SL learning, which may in turn lead to low risk-taking, low acceptance of ambiguity, and other behaviors that are probably negatively correlated with success in SL learning. It is desirable to prevent, or at least to modify such ascriptions.

One way to do this is by using cooperative, rather than competitive goal structures (Ames, 1984, 1986). In cooperative learning (e.g., Slavin, 1990), groups of students work on learning activities structured so that there is positive interdependence; typically, all parties have information or a specific role, and for

success to be achieved all must collaborate. In addition, often the reward or grade for the work is assigned on the basis of the overall group performance. Work done by Ames indicates that, whereas in a competitive learning situation (typical of most schools) self-perceptions following success or failure are based on how a student performed relative to his or her fellow students, cooperative learning situations may "alleviate the otherwise negative self-perceptions that evolve from poor individual performances" (Ames, 1984, p. 182). Under these circumstances, the underachiever (or SL learner) can begin to change self-perceptions and develop the feeling that for him or her, success is in fact possible.

Materials: The factor of "interest" is also important for materials. The commonsense idea that materials which are interesting aid learning has been documented for content subjects (Shirey & Reynolds, 1988). However, there is as yet no direct indication that this finding applies to SL learning. It is not a foregone conclusion, either, as in SL learning cognitive resources might be allocated to the interesting message or stimulus itself, rather than the language in which it was couched. (On the other hand, this is not an argument for the use of uninteresting or meaningless materials.) In discussing materials (as opposed to the activities they embody) we may consider them in terms of format and content.

One striking characteristic of audiolingual materials (particularly so-called first generation ALMs, e.g., Lado & Fries, 1957) was their repetitive content and unstimulating appearance on the page. Stern (1983) remarks that "teachers . . . complained about . . . the boredom they engendered among students" (p. 465), and Prator (1980) notes that as a result of ALM techniques "much of the motivation for studying the language [was] lost" (p. 15). In contrast, more recent textbooks (particularly those influenced by "communicative approaches") increasingly use varied typographical layouts, color illustrations, photographs, and often page formats that have been borrowed from the world of journalism (see e.g., the best-selling

Streamline series, Hartley & Viney, 1984, for all of these characteristics).

Besides format, materials writers consider the interest of content, both with regard to age and to culture. That is to say, the same set of items in a syllabus (for example, pragmatic functions or linguistic structures) can be manifested differently according to target—children, teenagers, adults, country—with regard to discourse context, topic, and style of illustration; to mention only a few aspects. Anecdotal reports of the learning of less-common SLs attest to the considerable reluctance of adults to learn from children's texts, even when they are the only available simple materials. Although we are not aware of any studies of the motivational effects of age-appropriate materials on learning, publishing companies obviously assume it to be of relevance to sales. Because the publishing market is subject to Darwinian pressures concerning the degree to which their products attract buyers (who are usually teachers, however, rather than students) this is a case in which what is on the market may be justified. It is also interesting that although SL researchers have hitherto rarely used the practitioner-validated meaning of motivation, SL textbook writers often adopt it (e.g., Long, 1977; Allen & Robinett, 1984).

THE SYLLABUS/CURRICULUM LEVEL

For some time now, ESL course design has paid explicit attention to the concept of needs analysis (Richterich, 1972; Robinson, 1987; Brindley, 1989), on the reasonable assumption that a program which appears to meet the students' own expressed needs (or whatever their supervisors believe to be their needs) will be more motivating, more efficient, and thus more successful. Although the proponents of this aspect of curriculum design rarely, if ever, make explicit reference to motivational research, they have taken for granted the importance of the matter (see, e.g., Wilkins, 1976), and their aims are entirely congruent with recent developments in this area.

The findings on locus of control and the need to change inefficient self-perceptions imply allowing a measure of flexibility in the curriculum, so that students can contract for a particular grade in accordance with a particular level of performance, or, to take another simple example, it means allowing a gradual approximation to a particular level of work through repeated revision of initially ungraded assignments.⁸

From a different perspective, the work of McCombs (1984, 1988) suggests the possibility of adding instruction in self-management strategies (which contribute to motivational self-control and facilitate change in locus of control) and other metacognitive strategies to SL syllabus content. In a detailed description and evaluation of a motivational skills training program designed to enhance "continuing motivation to learn," McCombs (1984) states that

students receiving such training prior to entering a technical course are more motivated and achieve higher performance scores than control students . . . the format for such training must be carefully chosen to reflect a combination of self-instructional materials (wherein students can experientially take responsibility and control of their own learning), augmented by instructor facilitation and group activities (wherein students can observe relevant role models and participate in group sharing and problem solving experiences). (p. 213)

Teachers who engage low-achieving students in this sort of modification of attitudes are themselves working on their own teacher expectancies; finding ways to ensure that their high expectancies for students actually result in success (Eccles & Wigfield, 1985). The development of this aspect of motivation is particularly relevant to SL learning, given its long-term and often out-of-class aspects, and would be in line with other recent developments in what should constitute the content of SL instruction, in that it increasingly seems desirable that SL teachers not only teach the language, but teach how to learn the language (e.g., O'Malley et al., 1985).

OUTSIDE THE CLASSROOM (LONG-TERM LEARNING)

The possibility often exists for SL learning to continue beyond the classroom. This applies most obviously to ESL countries, but in many FL countries the target language is available in some way to the learner outside the classroom. Even in those in which there are no speakers of English or other media, learners do have each other. One of the characteristics of good language learners (Naiman, Fröhlich, Stern, & Todesco, 1978) is their use of strategies to contact and sustain interaction with native speakers of the target language. Anecdotal reports attest to the success of some learners from countries in which there have been no sources other than those originally provided in the classroom, but in which determined learners have gone far beyond the requirements of formal courses, so that they seem near-native in performance on first arriving in an English-speaking country.

The role of motivation in informal SL learning contexts has been examined by both Krashen (1981, 1982) and Gardner (1985). However, whereas Krashen emphasizes the importance of motivation for subconscious "acquisition," Gardner sees the link between motivation and learning in informal contexts as due to the importance of opting in or out of opportunities for learning, which is greater than in formal instruction, in which attendance may be forced: "Once students enter into an informal context, their level of intelligence and aptitude will determine how much language material is learned, but since their effects are contingent upon students entering the situation, they play secondary roles" (Gardner, 1985, p. 148).

The concept of motivation discussed in this paper is as applicable to informal, naturalistic learning as to classroom learning, and no different processes of learning are involved. In informal learning, as in formal classroom learning, the basic motivational issues are the same: does the learner take advantage of opportunities for learning, persist at what is basically a difficult enterprise, and what factors facilitate such persistence?

It is not easy to assess the role of motivation in informal learning at present. Some case studies treat motivation explicitly (Shapira, 1978; Schumann, 1978b; Kessler & Idar, 1979; Schmidt, 1983, 1984), but careful studies of adult informal learning are comparatively rare. There are also problems with attempts by researchers to describe the motivations of language learners from a purely exterior perspective, because it is too easy to assume that an unsuccessful learner is lacking in motivation.

Diary studies may offer a better way to investigate the dynamics of motivational factors in learners, and a few studies have offered interesting insights by learners themselves into some of the factors mentioned here. Bailey (1983) has emphasized the force of competitiveness as motivation in her own and other people's learning. Schmidt (1986) documented his motivations (including some obvious rationalizations) for deciding to drop a Portuguese language class in Brazil: the other students were more advanced (competitiveness); he could not follow the lesson on the first day of class (expectation of failure due to task difficulty); the content of the course would focus on the subjunctive (perceived irrelevance of instruction) (Schmidt, 1986).

Unger (1989) has provided an example of a more successful resolution of motivational conflicts. While enrolled in a residential Swedish language program in a rural setting, his long-range goals were to develop Swedish as a second language for research purposes and to improve his spoken language proficiency. Frustrated by a class and an external learning situation that did not meet those needs, he redefined his learning goals, shifting priority back to the passive skills of reading, listening, and vocabulary expansion that could be met through the course, with a consequent reemergence of motivation.

It may thus be hypothesized that a number of strategies can be used to manipulate motivation, including the selection of appropriate goals and their periodic reevaluation (Larson & Smalley, 1972), periodic review of learning procedures and

situations, and so on. Baars (1988) stresses the importance of metacognitive skills such as the ability to label one's goals and to guide one's own processes, and suggests that one way to make new goals effective is to tie them in with existing deep goals—thus it might be profitable to introduce instruction in such strategies into SL programs in foreign-language as well as SL contexts. The identification of the utility of such strategies is only possible in longitudinal studies, of which the diary studies are typical.

AN OUTLINE FOR THE RESEARCH AGENDA

Future research should be guided by more than a simple collection of questions drawn up by those familiar with the area,⁹ and the work of Bunge (1967) is useful in developing a carefully structured agenda. He argues that scientific problems are problem systems, and suggests that the first step in dealing with poorly-defined problem systems should be an analysis leading to a partial ordering of questions relating to the topic or problem. These can be divided into three basic categories: (1) description, (2) analysis (of conceptual and methodological issues), and (3) experimentation. Ordering of steps is determined by the nature of the problem and the existence of previous work. Description and analysis should proceed interactively, in that some preliminary description is necessary to enable work to begin on measurement and conceptualization, but observation of course implies measurement. Cycling between these two aspects of the problem system should improve both description and methodology. In the real world, experimentation will not wait for work in the other two areas to be complete, of course, though if hypotheses are to be valid and effort is not to be wasted, investigators should not begin with this step. In stressing the importance of attending to the validity of research questions, we are responding to the problems that have existed in SL motivational research, as discussed

earlier. We note that the importance of interaction between observation, measurement, and the formulation of hypotheses in the initial stages of a research program is particularly stressed in ethnographic approaches (cf. Watson-Gegeo, 1988), and we would also emphasize the importance of an action research perspective in directing enquiry to practitioners' immediate concerns (see e.g., Argyris, Putnam, & McLain Smith, 1985), again as a means of ensuring the conceptual relevance of the research program or agenda.

With regard to the topic of motivation, general answers to a number of questions are to some extent in hand, but as we have observed before, SL aspects of the matter have not been adequately dealt with. We have therefore stated these questions in terms of SL-specific motivation (developed from Bunge, 1967, pp. 193–194).

DESCRIBE

- 1.0 Provide a preliminary contextualized description of motivation for SL learning
 - 1.1 What are typical instances of situations in which motivation is intuitively recognized as acting?
 - 1.2 What factors are relevant to motivation for SL learning?
 - 1.3 What types of individuals are motivated, under what conditions?
 - 1.4 What kinds of SL motivation are there? How are they related? (Attempt the development of a taxonomy.)

MEASURE AND ANALYZE

- 2.0 Consider conceptual, analytic, and methodological issues pertaining to motivation for SL learning
 - 2.1 What point of view should an investigation adopt? Should one aspect of motivation for SL learning be investigated, or should it be investigated across the board? Should an investigation be descriptive, or should an attempt be made to manipulate motivation?

- 2.2 How is SL motivation to be defined conceptually?
- 2.3 How is SL to be measured or operationalized? Apply validity and reliability criteria to instruments and operationalizations.

THEORIZE

- 3.0 Accumulate generalizations concerning motivation for SL learning, through intervention in or comparison of situations in which there is motivation for SL learning
 - 3.1 What motivation for SL learning (type, quantity, etc.) occurs under normal (equilibrium) circumstances?
 - 3.2 Can circumstances be arranged to cause SL motivation to arise? Can situations be set up so as to extinguish motivation for SL learning?
 - 3.3 Are there conditions under which motivation for SL learning increases, or decreases?
 - 3.4 What are the effects of motivation for SL learning on other relevant variables? What predictions can be made?

Many of the questions in this set have already been addressed partially, though by no means always in educational contexts, and rarely in SL contexts. Referring to the first part of the above list, we need, quite simply, descriptive studies of motivation in SL contexts. Of the behavioral manifestations of motivation discussed earlier (direction, persistence, continuing motivation, and activity level), only continuing motivation, (often labelled "persistence" but operationalized in terms of students continuing or dropping out of language courses, Gardner, 1985, McGroarty, 1988, Ramage, 1990), and activity level (defined in terms of observable classroom behaviors, Gardner, 1985, pp. 58-60), have received any attention so far, and much more can be done in relating these factors to differing concepts of motivation in SL classrooms. Case studies also offer a way of identifying situations in which motivation is intuitively recognized as acting, but of the small number of relevant reports (e.g., Wong

Fillmore, 1976; Schumann & Schumann, 1977; Schumann, 1978a; Bailey, 1983; Schmidt, 1986; Unger, 1989) most use the concept of motivation we have argued against in this paper, and generally do not address the more common classroom contexts. They certainly do not deal with motivation from the teacher's point of view.

Bunge (1967) suggests the need to develop a taxonomy as part of the initial investigations of a phenomenon or topic area. In dealing with SL motivation, we are in a sense dealing with one element of a broad taxonomy of motivation, but we may be able to do justice to this particular heuristic by seeing to what extent various classifications of motivation apply to SL learning. The distinction between extrinsic and intrinsic motivation, for example, seems to apply. Other subcategories of motivation may emerge with study, and their applicability to SL learning needs to be considered. Dörnyei (1990) has recently proposed a motivational construct for foreign (as opposed to second) language learning that consists of both an instrumental motivational subsystem and a cluster that may be thought of as "integrative" in a broad sense, as well as a need for achievement and attributions about past failures. This model needs to be tested in other settings to establish its generality, but it should also be noted that factors that were *not* identified by this study (for example, need for affiliation and power in addition to the need for achievement, attributions concerning past successes, as well as past failures) cannot be uncovered using the methodology of factor analyzing questionnaire responses unless they are built into the instrument in advance.

The question *What factors are relevant to SL motivation?* is intentionally open-ended but directs our attention to an analysis of the content of SL learning, as suggested above by the levels of the section called *Implication of Current Concepts of Motivation for SL Learning* of this paper. Various points of departure are suggested by mainstream educational research in this area, with regard to the use of intrinsically motivating materials, teacher feedback, and so on. But we need to know

whether, given the rather different nature of SL learning from that of regular content subjects, the implications of this research transfer directly.

The work of McCombs (1984, 1988) has suggested that certain types of learners are not motivated, and has indicated both why this is and how it may be altered. We are aware of SL learners who fail to persevere, who lack confidence in their abilities, but studies of failure to learn L2s are rare (despite the fact that this is the most common experience with SL learning: Bley-Vroman, 1989; Long, 1990; see, however, Schumann, 1975; Shapira, 1978). Yet given the extended duration of effort needed (particularly under regular classroom conditions) for even the smallest reward,¹⁰ long-term motivation would seem *prima facie* a most likely candidate for SL success.

The second section of the above list (Measure and Analyze) sets out questions that are both matters that each investigator will need to decide before beginning work, and are topics that will need perennial surveying as research proceeds in this area. One may expect periodic reviews of the concept, and particularly of its operationalization, and a cycling back and forth between these two areas of enquiry. At the same time, a researcher currently embarking on an investigation in this field might do well to restrict his/her study to a comparative exploration of methods of measuring SL motivation in, say, a classroom context. Because we have so little work in this area, merely developing measuring instruments is a demanding enough task (as elsewhere in SL research).

Finally, the third part of this list (Theorize) contains questions that should aid the orderly development of theories concerning SL motivation. Because we are arguing for a careful approach to hypothesis generation and testing, and believe that much groundwork has yet to be done, we will not attempt to list here a set of specific hypotheses, because an undelimitable number arise from Point 3.0. At present, investigators would be hard put to provide responses to the questions posed under Points 3.1 and 3.2, for the SL context (as opposed to other areas

of education, for which a small amount of data is available), and only speculation is possible concerning Points 3.3 and 3.4. The latter two elements of the list, however, constitute the most important questions. If researchers make use of this approach to a research agenda, they may be tempted to address them first, forming specific hypotheses on the basis of the non-SL investigations we have discussed earlier. But it is desirable that they be addressed, at very least, in concert with basic research addressing the first two sections of the list, so that the hypotheses developed are as valid as possible. We began this paper by noting the difference between practitioner use of the concept of motivation, and we would not wish to lose sight of this concern. Unless basic descriptive work is done as a foundation for hypotheses and intervention in this applied area, research will continue to be insufficiently well-founded.

SUMMARY

In this paper we have argued that work to date on the topic of motivation in SL learning has been limiting in two senses: it has been almost exclusively social-psychological in approach, and it has failed to distinguish between the concepts of attitude, especially attitude toward the target language culture, and motivation.

We would certainly not dispute that language learning takes place within a social context, nor that socially grounded attitudes may provide important support (or lack thereof) for motivation. We do not claim that there are no interesting relationships among social contexts, individual attitudes, and motivation; and we find that Gardner, in particular, has been sensitive to many of the issues raised in this paper (see especially Gardner, 1985).

Our claim is that this particular approach has been so dominant that alternative concepts have not been seriously considered. The failure to distinguish between social attitude

and motivation has made it difficult (1) to see the connection between motivation as defined in previous SL studies and motivation as discussed in other fields, (2) to make direct links from motivation to psychological mechanisms of SL learning, and (3) to see clear implications for language pedagogy from such previous SL research. This is at least partly because of an overly narrow set of investigative techniques.

Consequently, we have laid out a research agenda that we hope will stimulate a cautious, thorough approach to this topic, through the use of a wide variety of methodologies. We hope to see developments away from exclusive reliance on self-report questionnaires and correlational studies toward a research program that uses survey instruments along with observational measures, ethnographic work together with action research and introspective measures, as well as true experimental studies.

From a conceptual point of view, much of the work on motivation in SL learning has not dealt with motivation at all. Consequently, we have adopted here a definition of motivation in terms of choice, engagement, and persistence, as determined by interest, relevance, expectancy, and outcomes. We suggest that this will allow the concept of motivation to continue to be linked with attitudes as a distal factor, while at the same time providing a more satisfactory connection to language-learning processes and language pedagogy. We suggest also that a theory of the role of motivation in SL learning ought to be general and not restricted to particular contexts or groups. In brief, we seek to encourage a program of research that will develop from, and be congruent with the concept of motivation that teachers are convinced is critical for SL success.

NOTES

¹In the sense used by, for example, Brindberg & McGrath (1985), with regard to their "conceptual" and "substantive" domains; or equally, in terms of Glaser & Strauss' (1967) criterion of "fitness".

²The absence of strong direct correlations between measures of affect and SL learning would not make the model untestable, and there has been some discussion of the use of path analysis in this context (Farhady, 1979). However, there is as yet little agreement among researchers as to how this method (or the related structural equation modelling) can be used in a hypothesis-testing format (e.g., Keeves, 1988; LaDu & Tanaka, 1989).

³Although we argue that the integrative-instrumental contrast has dominated discussions of motivation in the SL field, it would be an overstatement to claim that other concepts of motivation have been ignored completely. Brown (1987, 1990) has related motivation to Maslowian hierarchical human needs, from fundamental physical necessities to the needs for self-actualization, and makes the important distinction between global, situational, and task-oriented motivation. Skehan (1989) acknowledges general psychological approaches to motivation, and suggests a need for attribution theory research in the language learning field. Our hope is that proposals such as Brown's, Skehan's, and our own will stimulate empirical research into SL learning and teaching, because it is not an overstatement to point out that the integrative-instrumental contrast has dominated research in this area.

⁴Like most definitions, this is somewhat of an oversimplification. For a more thorough treatment of the matter, see Kleinginna & Kleinginna (1981), who provide 98 representative definitions grouped into nine categories.

⁵Motivation is not an area in want of theories. We are using Keller's (1983) here, in preference to more well-known mainstream psychology theories of motivation, because of its breadth, and because of its specific orientation to learning.

⁶See also Wlodkowski (1985), who has developed a very similar approach.

⁷This is by no means a new idea in ESL (see Billows, 1961).

⁸A related response in FL syllabus design (in the UK) has been "to break up the traditional five-year courses into a set of shorter term objectives that more pupils might reach and so experience success in language learning" (Page & Hewitt, 1987, p. 2) and see also Note 10 below.

⁹Ideally, there should be a tested search procedure, but methodologists of science have not adequately addressed this area, because philosophers of science had until recently ruled this topic (the context of discovery) out of court (Reichenbach, 1938). Statements relating to how best to obtain or state a research problem, or how best to set out a research program, must therefore be taken as plausible heuristics, rather than proven effective procedures. For some discussion of recent developments in this area, see Crookes (1988).

¹⁰Witness, for example, the modification of the Council of Europe's "Threshold Level," setting a half-way point ("Waystage") as a major curriculum goal because of the supposed negatively-motivating effects of setting a base target that required more than two years of study (van Ek & Alexander, 1975, p. 13).

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Language Anxiety: Its Relationship to Other Anxieties and to Processing in Native and Second Languages*

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This study investigated the factor structure underlying 23 scales assessing both language anxiety as well as other forms of anxiety. Three factors were obtained and identified as Social Evaluation Anxiety, State Anxiety, and Language Anxiety. Correlations were obtained between scores based on these factors and measures of short-term memory (a Digit Span test) and vocabulary production (a Thing Category test). These two measures were administered in both L1 (English) and L2 (French) versions. It was shown that Language Anxiety was correlated significantly with both Digit Span and Thing Category scores, but only in L2. Further analyses indicated that the French tasks were more anxiety-provoking than were the English ones and that for L1, digit span was more anxiety-provoking than was vocabulary. These results are interpreted in terms of the deficits created by anxiety during the cognitive processing of L2 stimuli.

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