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Social Psychology and Second Language Learning

The Role of Attitudes and Motivation

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To Janet

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General preface

Those fascinated by the importance and complexities of language in social life might look to psychology and especially social psychology for some insights. Much of an individual's behaviour occurs in a social context, is manifest linguistically, and mediated by cognitive processes. While language figures prominently in many areas of psychological inquiry such as cognition and development (albeit predictably asocial and accommunicative in the former case), detailed exploration of the dynamics of language and communication within social psychology are conspicuous by their absence. Although there are important exceptions by way of certain individuals, a few books and a couple of research topics, an examination of mainstream journals and influential texts in social psychology suggests that language and communication hold at the most a peripheral status within the discipline. This is not to suggest that important research has not been documented. Yet it does exist across an extremely wide set of outlets in the social and communication sciences. Our potential enthusiasts are liable to be soon disappointed at the apparent dearth of mainstream interest in social psychology for the topic, and understandably reluctant to invest much effort in discovering the inevitably rich stores of information actually available. They are more likely to be attracted by the equally important but far more accessible perspectives in other disciplines such as philosophy, sociology and anthropology which not only have long-serving labels for their endeavours (i.e. the sociology of language) but can justifiably display their wares proudly. One obvious venue for our language enthusiasts, apart from communication science (which in the interpersonal domain has an active social psychological perspective especially in methodology), is sociolinguistics. This, for many, is a healthy multidisciplinary field examining the relationships between language and society from (to name a few) political, demographic, economic and linguistic perspectives. It has generated the most impressive array of interesting and societally important findings, and once again, understandable in terms of the above, neglects a coherent social psychological approach; again, there are important exceptions particularly with regard to the study of bilingualism and forms of address.

We might then ask: what *is* this social psychological approach that is so lamentably missing from language studies? It lies in two domains. First, language and society are viewed as *interdependent* not as dichotomies as reflected in much traditional sociolinguistics; it is tremendously difficult to separate linguistic and social processes in many instances. Thus, not only do speakers' language behaviours reflect the norms of the situation as perceived by

them but that very language behaviour itself can often act creatively to define, and subsequently redefine, the nature of the situation for the participants involved. Second, attention is drawn to the fact that language behaviour is likely to be dependent upon how speakers cognitively represent their social and psychological characteristics and subjectively define the situation in terms of its norms and their goals as is any objective classification of that situation imposed from without (e.g. by investigators). In this sense, *cognitive representations* are seen to be important mediators between language and social context. Given that social psychological theories – as well as their methodologies – are all about the complexities and dynamics of cognitive organization and representation of the social world, it is felt that this perspective can broaden the explanatory scope of the study of language.

Notwithstanding the reasons why a social psychological approach to language and communication has never really gelled – apart from in the early days of its history and in certain national contexts such as Canada – there are many indications now that it has ‘arrived’. For instance, some sociolinguists are beginning to acknowledge the contributions that social psychologists of language are making toward predicting and explaining linguistic variation in social contexts, and the former are themselves integrating speakers’ feelings, values, attitudes and perceptions into their research designs.

Obviously, it is timely to promote the coherence of the approach by means of a Monograph Series of interest to those in social psychology on the one hand and language and communication on the other. In this way, we can resurrect language and communication ultimately to its rightful place as a mainstream concern in social psychology as well as concurrently continuing to promote a social psychological perspective to the study of language and communication as an essential one comparable in impact to its linguistic, sociological and anthropological counterparts. In this vein, authors and editors to this Series are being asked to expend considerable energy on taking into account the cross-disciplinary nature of the potential readership. In other words, the Utopian aim is to have volumes which are not only appealing to experienced researchers in the social psychology of language but are also compelling reading for students of linguistics having little social psychological background and for social psychological students having little linguistics background.

It will be apparent from the volumes in this series that social psychologists of language can be highly self-critical on many levels with respect to what has been achieved. However, while it seems important to develop more wide ranging and sensitive methods, more precise concepts and sophisticated theory, contributors to this Series will be at pains to stress that we do not see a social psychological approach as any more than an important *complement* to other equally important perspectives in language and communication; many of us are actually inter-disciplinarians at heart.

In the light of the foregoing, I am delighted to include a contribution by Robert Gardner to this series. Herein, the reader will appreciate that learning a second language is mediated by a range of *cognitive representations* analytically beyond the conceptual briefs of other language-related disciplines. Moreover, Gardner shows us that not only is acquisition dependent on learners’ social psychological makeups but that the latter are also moulded in part by the language proficiency attained by them. Contemporary social psychology of

language had, arguably, its most coherent and articulated origins in Canada in the late 1950s arising out of the day-to-day problems of living in a bicultural, bilingual context steeped in conflict. Robert Gardner was in the forefront of such academic developments and has been spearheading them ever since, as this volume attests. Bilingualism has always been of crucial importance world-wide given that the monolingual mortal is in actuality a somewhat scarce commodity. However, academic recognition of the importance of this topic was really only awakened during the recent ethnic revival in the Western world. With the rapidly developing sophistication of information and communication technologies, we can expect that bi- and multilingualism will assume even greater importance as international contacts multiply and previously 'isolated' ethno-linguistic groups gain easy access to their home cultures. This book then is a timely reflection of what social psychology can achieve in furthering our understanding of language and communication empirically, methodologically, and theoretically, and as such is a testament to Robert Gardner's valuable contribution to this discipline's development.

Howard Giles

Preface

In 1972, Wally Lambert and I published a book, *Attitudes and motivation in second language learning*, that was largely the report of a large-scale research project that we had conducted some years earlier. In it, we attempted to explore what was then the relatively new idea that affective variables might play a role in learning the language of another cultural community. Since then, research in this area has expanded considerably, and more and more people are taking an active interest in the topic and its implications for the individual language learner. The present book is an attempt to update matters, to survey and summarize what appear to be major empirical and theoretical trends in this area, and to suggest directions that future research might take.

I am indebted to many individuals who have contributed greatly in various ways to the development of this book. Foremost among these, of course, is Wally, who introduced me to the problem in the first place and who will always play a strong role. P.C. Smythe, my colleague for many years, focused our attention on the psychometric properties of our measuring instruments, and together with C.L. Smythe, R. Clément, L. Glikzman, and latterly R.N. Lalonde, we conducted many of the studies discussed here. Other individuals have contributed to the actual production of the book itself. V. Devine has typed many drafts of the chapters without the benefit of a word processor, and helped greatly in creating the index and in proofreading the final copy with the able assistance of L. Gallant and R. Moorcroft. Finally, I would like to recognize the support of the granting bodies, the Ontario Ministry of Education, the Canadian Office of the Secretary of State, and the Social Sciences and Humanities Research Council for their aid over the years, and to thank the Schools Boards, teachers, and students without whose co-operation the research described in this book would not have been possible.

R.C. Gardner
July 1985

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1

Introduction: focus on the major issues

The problem

Why is it that students of a second language differ in their level of attainment, some ultimately becoming bilingual, others remaining virtual monoglots? Does studying a second language make students more tolerant of others and more appreciative of the language group concerned? Does travel to another language community promote warmth and understanding? Are sociable individuals better at learning second languages than those who are introverted and shy? Does learning a second language have the same meaning and significance for a member of a minority ethnic group as it does for an individual from a majority group?

Admittedly these questions are not new, but they are becoming more and more important to both the language teacher and the researcher. It wasn't too long ago that these questions were overshadowed by other ones. Would developing technology provide the means for improving second language achievement? Could we develop tests that would predict who would be successful in second language study? Such questions had grown out of a dissatisfaction on the part of teachers, students and society that language courses were not achieving their desired ends in that they were not producing bilinguals. Although many teachers still berate themselves over their 'apparent' lack of success, there seems to be a growing realization that perhaps second language instruction is not a complete failure – but, rather, that the goal of 'bilingualism' in some contexts is possibly an unreasonable one. Such a new realization, it would seem, is a positive sign. It doesn't indicate complacency on the part of teachers, but rather a decision to focus their energies on maximizing language growth in their students. This new orientation is reflected in the following statement from the 1977 Northeast Conference on the Teaching of Foreign Languages (Born 1977, 11) which reads, 'We propose to treat language as a whole: its nature, its history, its relationship to culture, the acquisition of it, the immediate uses to which it can be put, and the development in our students of an appreciation for the gift of tongues'. Obviously, this type of orientation tends to remove second language study from the purely educational realm, and instead places it at the centre of social psychology.

There have, of course, been earlier discussions on the social psychological implications of second language acquisition. One is particularly noteworthy because it predates by a number of years much of the research to be discussed in this book. Arsenian (1945) reviewed the literature on bilingualism and second language acquisition and outlined five problem areas requiring further research.

2 *Introduction: focus on the major issues*

Four of the content areas were 'Language in General', 'International Language', 'Language Learning' and 'Bilingualism'. The fifth dealt with 'The Social Psychology of Language and Bilingualism', and, although reflecting the pragmatism noted above, the research questions bear a remarkable similarity to issues raised here. Examples of these questions are, 'How does language facilitate or inhibit cultural assimilation or accommodation?', 'In what way do affective factors, such as social prestige, assumed superiority, or – contrariwise – assumed inferiority, or enforcement of a language by a hated nation affect language learning in a child?', and 'How do victor and vanquished nations look at each other's language? Under what conditions may one learn the language of the other?' (p. 85). The terminology is perhaps different, but many of the topics discussed in this book are reflected in these questions.

To many individuals, the learning of a second language is a relatively unimportant task faced by children early in their education, while for many others it is a foregone conclusion. More than one language is spoken in the home, so they 'automatically' learn the languages. Or the language used primarily in the home is not the one used in the playground or school so this other language is also 'automatically' learned. Still another scenario involves a community wherein one or two languages are taught in school for many years, and many students develop proficiency in these languages. North Americans often view this as the European model and are in awe that Europeans are so skilled in languages. Many of my European colleagues point out, however, that language training is also a challenge in their countries, that there are wide individual differences in achievement among their students, and that it is by no means 'automatic' that a high level of proficiency is developed.

The thesis proposed here is that second language learning is a social psychological phenomenon, and it is important to consider carefully the conditions under which it takes place. For many individuals second language learning is a relatively uncommon experience, engaged in for only a few years with little immediate pay-off, while for others it is a way of life that leads to bilingualism. Tucker (1981) points out that there are more bilinguals in the world than there are monolinguals – a disclosure that comes as a surprise to many North Americans, at least. He states that in heavily populated countries such as China, India, Nigeria, and the Philippines, it is common for individuals to become fluent in more than one language. In many other countries, such as Afghanistan, Kenya, Morocco, it is common for children to be educated in a language other than their home one.

Macnamara (1967) also highlights the social significance of second language acquisition and bilingualism. He proposes that in most nations in Europe, Latin America and Asia, bilingualism is a common phenomenon because of the ethnic and linguistic diversification in these countries. To survive socially, if not even physically, skill in more than one language is a necessity. Furthermore, in many developing countries there is a strong need to learn the more economically powerful languages; hence a drive toward bilingualism, or at least communicative competence, in these languages. In still other countries, individuals are developing an awareness of the value of reviving languages which are part of their national heritage. He suggests that in the United States, for example, there was a disillusionment with the monolingualism produced by the melting pot ideology and a realization that training in other languages should be fostered. In

other countries, too, there is a developing movement toward maintaining indigenous languages that are facing elimination.

North Americans are often considered to be poor learners of second languages largely, they believe, because there is little need for learning another language. And it is true that in most parts of the continent English is sufficient. Nonetheless, second language acquisition and bilingualism are important social issues. Consider the situations in Canada and the United States, for example.

Canada is officially a bilingual country. The Charter of Rights and Freedoms adopted in 1982 provides (to quote from the 1983 Annual Report of the Commissioner of Official Languages) 'a set of constitutional guarantees which effectively says that English and French are our two official languages; that they will be accorded equal status at least by the Federal and New Brunswick Governments; that the courts and legislatures in those two jurisdictions, as well as in Quebec and Manitoba, are subject to similar obligations; that the two Governments accept the requirement to provide service in both languages; and that Canadians have the right to educate their children in their own official language.' (p. 2).

Figures presented in that report demonstrate, however, that despite the official recognition accorded the two languages, many students do not study the other language. At the elementary school level (kindergarten to grade six), only 46.8 per cent of the children across Canada were enrolled in classes concerned with their second language in 1982. At the secondary school level (grades seven to 11, 12 or 13 depending upon the province) the corresponding figure was 52.3 per cent. Furthermore, although the percentage enrolments have increased at the elementary school level since 1970-1, they have decreased at the secondary school level, suggesting that relatively fewer of the older students are now studying their official second language. Thus, despite the importance given to a knowledge of both languages by many government agencies, there are many who do not share their interest.

The United States, on the other hand, is generally considered to be an English speaking country. Tucker (1981) reports, however, that approximately 28 million people (one eighth of the population) have non-English backgrounds, and, moreover, that the majority of these people were born in the United States. Furthermore, about 10.6 million of them have Spanish language backgrounds. He estimates that, by 1985, over 50 per cent of the school-age population in the Los Angeles area will have Spanish as a language background. Such heavy concentrations of non-English speaking individuals are not uncommon. He reports that in New York in 1978, 29.5 per cent of the school-age population were of limited English proficiency. In the United States context then, learning a second language is also an important social issue, but much of the emphasis is concerned with programmes dealing with English as a second language.

The major point stressed by these examples is that, although North Americans may be apathetic when it comes to second language acquisition (cf. Smith 1971; Tucker 1983; Turner 1974), it is not because language is an unimportant issue. There does, nonetheless, appear to be a relatively widespread belief that they cannot learn languages as well as Europeans (particularly continental Europeans).

It is this context which is the major focus of this book. That is, this book is concerned with the process of second language acquisition, not bilingualism.

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Although bilingualism may be a legitimate and meaningful goal of language training programmes, the simple truth is that many second language students do not achieve anything like bilingual skill, and this book is concerned primarily with the student in the formal second language class. It may be that the findings and conclusions discussed here are applicable to individuals who develop second language proficiency in any context, but the important point is that this generalization must be put to open empirical testing. I believe that the context plays a major role, and the context under scrutiny here is that of the student acquiring a second language in the school setting, often in environments where immediate access to the second language community is limited, if not virtually non-existent.

A major premise that pervades this book is that attitudes influence the success with which another language is acquired. Macnamara (1973a) has criticized this thesis by arguing that 'the main thrust in language learning comes from the child's need to understand and to express himself' (p. 251). He states, 'A child suddenly transported from Toronto to Berlin will rapidly learn German no matter what he thinks of the Germans. Indeed, when he makes his first appearance on the street and meets German children he is likely to be appalled by the experience. They will not understand a word he says; they will not make sense when they speak; and they are likely to punish him severely by keeping him in incommunicado. . . . His need to communicate has very little to do with what is commonly understood as an attitude to a people or its language' (p. 253).

Much of what Macnamara says is probably true. More importantly, however, it points out a major confusion in this research area. Too many educators and researchers view second language acquisition as a single phenomenon without recognizing the importance of the context in which acquisition takes place. Equating the individual who develops bilingual proficiency in the home or the street with the one who develops such skill primarily in a formal school context is meaningless. This is not meant to imply that the processes are necessarily different, but simply that the contexts are different, and thus different variables can come into play. The important point is that considerable attention must be directed toward the contexts in which language proficiency is developed, the methods by which they are acquired, etc.

In his writings, Macnamara (1973a, 1973b) also presents the argument that many nations have learned the language of other peoples for whom they could not have positive attitudes. He states, for example, 'There has always been some antipathy of Irish people to England and English; yet English replaced Irish' (1973b, 37). He also cites examples of Scotland, Wales, etc. Again, this is an important point, not so much that it disproves the basic thesis proposed here, but rather that it indicates the importance of considering the social context in which language acquisition takes place, and highlights the importance of empirical research. An interesting empirical question which could be tested, for example, is whether there is any relation between the attitudes of individual Irish people toward the English and their proficiency in various aspects of English.

The purpose of this book is to highlight the social psychological implications of second language study in the formal language learning context. This will be achieved by considering the relevant research literature in detail and by presenting new data obtained largely for this book. Attention will be directed toward variables that have social psychological overtones (like attitudes, ethnic

interaction, communication), rather than ones with pedagogical implications (like classroom organization or study habits). This narrowing of the focus is not intended to play down the importance of these other factors, but rather to permit a clearer and more detailed look at the social psychological ones. Furthermore, little attention will be directed toward teacher variables, teaching methods, etc., except to emphasize the need to control for these factors in investigations of the role of social factors. Again, this omission is not meant to denigrate their importance. They are clearly important factors which have a definite impact on student achievement (see, for example, the excellent and thorough discussion of language teaching pedagogy by Stern (1983)).

Objectives

I have three goals in mind in writing this book. First, I want to review and evaluate much of the research literature which bears directly on the role of attitudes and motivation in second language acquisition. In my opinion, some of this research is not technically sound and some of it is ambiguous. Very little (if any) of it permits unequivocal cause-effect statements. But most of it suggests associations that are too consistent, too meaningful, and too potentially useful to write off as due to faulty manipulations, poor controls, or inappropriate statistics. It raises too many questions and suggests too many answers to remain ignored. And, to date, it not all been brought together.

I intend to stress the importance of empiricism and scientific rigour. Considerable speculation about language learning is based on individuals' views derived from their experiences, preconceptions, and the like. As valuable as this may be, it is no substitute for empirical investigation. Not all investigations are necessarily well conceived, however, and it is important to consider them carefully before assuming the findings are necessarily valid. Finally, there is no substitute for replication. One study, no matter how carefully conducted, cannot be taken as conclusive. It is only with repeated investigation that the complexities of an area can be truly appreciated and comprehended.

As a second objective, I want to present a series of research projects which had as their major focus the purpose of answering some questions which individual studies couldn't. In this respect, some attention is devoted to a battery of attitude and motivation measures which have been developed and tested in a number of regions across Canada. (The items comprising this battery are reproduced with some modifications in Appendix A.) Repeated use of the same battery, in a number of different situations and in a number of different regions permits comparisons and contrasts which are often not possible for investigations conducted by many researchers using different techniques.

By directing attention to this battery, I do not mean to suggest that it is the only meaningful one. However, it has had considerable attention paid to assessing its reliability and validity and thus has known utility. Other procedures are, nonetheless, available and may be more suited to individual research needs in different contexts. Jones (1966), for example, developed a Thurstone (1928) scale of attitudes toward learning Welsh which was of considerable value in his research, and the same approach could be adopted for use with other languages. Alternatively, Cooke (1978) proposed the use of semantic differential ratings and social distance judgements of various ethnic groups and provided examples

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of these materials. Spolsky (1969) suggested using ratings of the applicability of various traits to oneself, one's own community, and the second language community in order to assess the extent to which individuals identify with a particular community. This approach has also been used by Lambert and Tucker (1972) to map students' identifications as they proceed through language training. Finally, there is the matched guise technique initially used by Lambert *et al.* (1960) to assess stereotypes about different groups. This procedure required individuals to rate bilinguals speaking in their two languages (though subjects are not aware of this), and the reactions to the two different guises are contrasted. This procedure has also been used to assess stereotypes of bilingual and monolingual children (Anisfeld and Lambert 1964; Lambert *et al.* 1966). Thus, although much of the research which has been conducted on the role of attitudes in second language acquisition focuses on traditional Likert (1932) type attitude scales, it should be realized that there are many alternative procedures which could be used.

The third objective of this book is to attempt to explain why attitudes and motivation play a role in the process of learning a second language, and the nature of the roles they play. As indicated above, particular attention will be directed toward learning languages in the formal classroom situation, and the role of the context (or the social milieu) will be stressed continually. Focusing attention on process variables involves some degree of speculation because, as I have said above, the research primarily demonstrates associations. It does not provide unequivocal answers to causal questions. That is probably why it is such a fascinating field, at least from my perspective.

General orientation

This book is directed toward the study of individual differences in second language learning, primarily individual differences in various attitude and motivational characteristics. Such variables would seem to be important simply because the second language course is very different from other courses in the student's curriculum. Other courses such as mathematics, history, and geography, all involve aspects of the student's own culture, or at least perspectives of his or her own culture.

When studying history, for example, the student is presented with material from the perspective of his or her own community. Anyone who has had the opportunity to discuss some 'historical fact' with a member of another ethnic community will easily recognize that facts have different perspectives. When confronted with modern languages, however, students face material from another cultural community. Moreover, students are not asked simply to learn about the language; they are required to learn the language, to take it in, as it were, and make it part of their behavioural repertoire.

The words, sounds, grammatical principles and the like that the language teacher tries to present are more than aspects of some linguistic code; they are integral parts of another culture. As a result, students' attitudes toward the specific language group are bound to influence how successful they will be in incorporating aspects of that language. Whether this influence takes the form of a cognitive filter, as suggested by Dulay and Burt (1977), and Krashen (1981), or whether they simply support a student's motivation is an open empirical

question. The point is that there is good reason to believe that they will be implicated in the language learning process. Turner (1974) has suggested that for Americans their melting pot ideology causes them to value American ideals and language (i.e., English) and to denigrate foreignness, and that this orientation makes it difficult to learn another language. As he says, 'What is important to understand is that our foreign language problems are so stubborn and persistent because they represent areas of cultural conflict' (p. 196).

As long as language programmes require students to make the other language part of their behavioural repertoire, it seems reasonable to hypothesize that such attitudes will influence the relative degree of success with which this can be achieved. If, however, the programme focused more on the cognitive aspects of language, as in traditional grammar-translation courses or courses which stress a reading knowledge of the language, it seems possible that such attitudes would be involved to a lesser extent. Krashen (1981) makes a similar point when he distinguishes between language learning and language acquisition, though, in that instance, the major determinant appears to be one of spontaneity rather than the particular skill being developed.

Attitudes toward the other language community are not the only attitudes that would be involved, however. Recognizing the strong association between ethnicity and language calls attention to many attitudes which might affect language learning, not all of which have been investigated yet. This perspective would suggest that attitudes involving reactions to outgroups in general might be implicated. Examples from our own research would include authoritarianism, ethnocentrism, anomie, or interest in foreign languages; attitudes not investigated by us would include xenophilia (or xenophobia), and nationalism. Each of these share a common theme in that they imply some contrast between one's own and another cultural community.

This perspective also focuses attention on the language as something more than a neutral linguistic code. Because of this, attitudes relating to the language itself could also be involved. Examples include attitudes toward learning the language, attitudes toward speaking it, reactions to its sound or character, or structure, etc. The important point here is that, since the language does not represent an aspect of the individual's own cultural heritage, attitudes toward aspects of the language could play a role in determining how successful an individual would be in acquiring it.

Such an orientation also places a greater emphasis on attitudes toward the language learning situation than would be the case if the learning material were part of the student's cultural background. To this extent, there is a good chance that attitudes toward the course or the teacher may be important because the course and the teacher can be viewed as focuses of the language. It is quite possible that the language classroom is the only place where the student meets the language and that the teacher is the prime user of the language. Consequently, the course and the teacher can become closely associated with the language material, and attitudes toward them could thus become highly influential. In other subject areas, the material has some link with the individual's own culture; hence, the course and the teacher are not the only focuses.

The majority of these attitudes are undoubtedly developed and fostered in the home environment, supported by the atmosphere in the general community, and reinforced by an individual's peers. But it is highly likely that many of these

same attitudes become salient for the first time in the language class. Particularly in environments where the other language group is not especially represented, many of the attitudes specifically associated with the group or the language are quite probably dormant until the student is confronted with learning the language. Then these latent attitudes can be awakened and shaped by the tenor in the classroom. The teachers and the methodology can, consequently, play an important role in shaping the nature of the students' attitudes, providing they are not rigidly fixed.

In the language learning situation, if the students' attitudes are favourable, it is reasonable to predict, other things being equal, that the experience with the language will be pleasant, and the students will be encouraged to continue. Simply, favourable attitudes tend to cause the experience to be perceived positively. If, on the other hand, attitudes are negative, the experiences will tend to be perceived unfavourably. Obviously, however, the teachers and the methodology can enter into this chain of events. If teachers are skilled in the language and attuned to the feelings of their students, and the methodology is interesting and informative, this can do a lot towards the awakening of positive attitudes, regardless of whether students' initial attitudes are positive or negative. This is because the language course is artificial. It is, after all, a school subject also, and the majority of students will approach it initially as just another school subject. Obviously, if teachers are not knowledgeable, not sensitive to student reactions, and encumbered with a dull and unimaginative methodology, it is unlikely that positive attitudes will be developed. In such a situation, only the student with an initially strong favourable attitude might be expected to survive the programme with much favourable affect intact.

This then is the general orientation of this book. Language courses are different from other curriculum topics. They require that the individual incorporate elements from another culture. As a consequence, reactions to the other culture become important considerations. Furthermore, because the material is not merely an extension of the students' own cultural heritage, the dynamics of the classroom and the methodology assume greater importance than they do in other school topics. Such considerations place considerable emphasis on the concepts of attitude and motivation in the learning of second languages. The next section briefly discusses the major concepts involved in research on this topic.

Major concepts

Attitudes

The concept of attitude is complex, and many definitions have been proposed to describe its essence. Allport (1954, 45) states that, 'an attitude is a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related'. Attitudes are said to have cognitive, affective, and conative components (cf. Harding *et al.* 1954). The cognitive component refers to the individual's belief structure, the affective to emotional reactions, and the conative to the tendency to behave toward the attitude object. When social scientists attempt to measure an attitude, however, they typically infer it on the

basis of individuals' reactions to evaluatively-worded belief statements. Although the procedures differ somewhat, this is the essential nature of the four major attitude assessment techniques, the Likert (1932), the Thurstone (1928), the Guttman (1944), or the semantic differential (Osgood *et al.* 1957) procedures. Consequently, from an operational point of view, an individual's attitude is *an evaluative reaction to some referent or attitude object, inferred on the basis of the individual's beliefs or opinions about the referent*. The conative component is not specifically included in this definition since whether or not attitudes have behavioural implications does not seem germane to the definition of the concept. Some authors have argued that the concept of attitude is of limited value since individual differences in attitudes do not correlate that highly with behaviour (see Wicker 1969), but it should be emphasized that they do not state that it does not correlate with behaviour. The accumulated evidence in the area of second language acquisition indicates that attitudes are related to behaviour, though not necessarily directly. This forms the basis of much of the material in the following chapters.

The preceding definition made reference to a referent or attitude object. That is, attitudes are attitudes about or toward something, as in attitudes toward French speaking people. Attitudes differ, however, in terms of their specificity/generality. Attitudes toward French speaking people are relatively specific in that the referent is reasonably concrete, though to some extent, of course, an abstraction. Ethnocentrism or xenophilia, on the other hand, are more general in that the referent cannot be clearly delineated. One interesting consequence of this specificity/generality dimension is the assessment of the reliability of the corresponding measuring instruments. Reliability is typically defined in terms of the measuring instrument yielding the same measurement on two or more occasions, but is often assessed in terms of internal consistency which deals with the relations among items comprising the scale. Where the attitude is general, however, it is highly likely that considerable discrepancy could exist between a test/retest assessment and one concerned with internal consistency. Individuals might respond similarly over two occasions to each item, yielding a high test/retest reliability, yet respond differentially to the items at any one testing because the generality of the attitude permits many interpretations of individual items (yielding relatively lower internal consistency reliability). In such situations it would be unwise to conclude that the test is unreliable, but rather that the generality of the attitude influences the assessment of its reliability.

When attention is directed to the relationship of attitudes to behaviour, another dimension is introduced, namely that of relevance. Some attitudes might be more relevant to the behaviour than others. Thus, for example, attitudes toward learning French might be expected to be more relevant to the behaviour of obtaining a high grade in a French class than would be attitudes toward learning German or attitudes toward French Canadians. Differing degrees of relevance would be expected to influence the magnitudes of the correlations of such attitudes with the behaviour in question. It just might be that all three attitudes referred to would correlate significantly with grades in French since many attitudes could be involved in such a complex index of behaviour, though the magnitudes of the correlations might be expected to differ. That is, attitudes toward learning French would probably produce the

highest of the three correlations with grades simply because such attitudes are the most relevant to grades in French. Attitudes toward French Canadians might not correlate as highly with French grades but, because of the common 'French' component, the correlation could be significant. For much the same type of reason, even a measure of attitudes toward learning German might be expected to correlate with grades in French because the attitude toward learning another language, like German, could involve components which influence attainment in French. The differing magnitudes could simply reflect the relevance of that attitude to that behaviour, not the relevance of the attitude concept to behaviour. This notion is considered in greater detail in Chapter 3.

The importance of relevance is supported by research conducted by Fishbein and Ajzen [for comprehensive reviews see, for example, Ajzen and Fishbein (1977), Fishbein and Ajzen (1975)] which consistently demonstrates relationships between the attitude of performing some behaviour and the actual behavioural intention or behaviour itself. In discussing factors which influence the magnitude of the attitude-behaviour relationship, Ajzen and Fishbein (1977) argue that both attitudes and behaviours are composed of the elements of target, action, context and time in that the greatest association between attitudes and behaviour will occur when these elements correspond. That is, if the attitude refers to a particular activity with respect to a particular target in a particular context at a particular time, and the behaviour is that activity involving that target in that context at that time, the association will be high. It seems obvious, however, that such relationships, though high in magnitude, are relatively low in consequence (cf. Gardner *et al.* 1978). It is surely more important for psychological theory to demonstrate a relationship between some attitude which is not obviously linked to a behaviour and that behaviour than to confirm an obvious relationship.

Motivation

Motivation is a term which is often used with respect to second language learning as a simple explanation of achievement, as in the statement, 'If the students are motivated to learn the language, they will'. Such use of the term has little value, however, since it says nothing whatsoever about the language learning process, the concept of motivation, or the reason for any association between the two.

As used here, the term 'motivation' has very distinct characteristics and a clear link with the language learning process. Motivation in the present context refers to the combination of effort plus desire to achieve the goal of learning the language plus favourable attitudes toward learning the language. That is, motivation to learn a second language is seen as referring to the extent to which the individual works or strives to learn the language because of a desire to do so and the satisfaction experienced in this activity. Effort alone does not signify motivation. The motivated individual expends effort toward the goal, but the individual expending effort is not necessarily motivated. Many attributes of the individual, such as compulsiveness, desire to please a teacher or a parent, a high need to achieve, might produce effort as would social pressures, such as a demanding teacher, impending examinations, or the promise of a new bicycle. None of these, however, necessarily signify motivation to learn the language.

Similarly the desire to learn the language, or favourable attitudes toward learning the language, do not reflect motivation in and of themselves. The individual may want to learn the language and may enjoy the activity, but, if this is not linked with a striving to do so, then it is not truly motivation. Many of us may want to be millionaires, but if this desire is not associated with a concomitant effort to achieve the goal we are not really motivated to become millionaires. It is a pipe-dream, something to think about, but not something that we set out diligently to achieve. When the desire to achieve the goal and favourable attitudes toward the goal are linked with the effort or the drive, then we have a motivated organism.

Orientation

In his discussion of motivation in second language acquisition, Dunkel (1948) distinguished between the extent and the kind of motivation. In the present analysis, the concept of motivation is assumed to include the goal, namely, to learn the language, and hence Dunkel's notion of the kind of motivation is not directly applicable. This analysis thus differs from Dunkel's in two ways. First, motivation is seen to include three components, effort, want and affect. Second, it is seen to be goal directed, and the goal is to learn the language. But one might ask why individuals have this goal. Worded another way, what is their orientation? As used here, orientation is a concept distinct from motivation.

In 1959, Wallace Lambert and I published an article (Gardner and Lambert 1959) in which we introduced a measuring instrument, the orientation index. This scale provided students with four reasons for studying French which they were asked to rank-order in terms of their personal importance. Students were classified as integratively or instrumentally orientated on the basis of the alternative they ranked as most important to them personally. They were classified as integratively orientated if they emphasized one of two reasons which stressed either meeting and conversing with more and varied people, or as a means of better understanding French Canadian people and their way of life. These two reasons for learning French were classified as integrative because they appeared to stress interaction with members of the French speaking community for social-emotional purposes. That is, the underlying aim for learning French appeared to involve communication with the other community. Students were classified as instrumentally orientated if they emphasized that they were learning French because it would be useful in obtaining a job or if it made them better educated. The focus in these instances appeared to be away from any social-emotional contact with the other community, emphasizing instead pragmatic reasons for learning French. The distinction between integrative and instrumental orientations is still with us today, although it has become surrounded with many excess meanings which are not supported in the research literature or even the original conceptualization. The important point here, however, is that the integrative and instrumental orientations represent ultimate goals for achieving the more immediate goal of learning the second language. Recognition of this point eliminates much of the confusion surrounding these concepts.

Jakobovitz (1970), for example, equates an integrative orientation with an

12 *Introduction: focus on the major issues*

intrinsic interest in the language, and an instrumental orientation with an extrinsic interest. Obviously, however, the distinction is more complex. In fact both the integrative and instrumental orientations are extrinsic in that they indicate that the language is being learned in order to satisfy some goals not simply because of an intrinsic interest in the language itself (cf. Stevick 1976 for a similar criticism). In a somewhat different vein, Kelly (1969) traces the integrative orientation as far back as St Augustine, but again the focus seems to be more on the intrinsic interest in the language rather than on an integrative orientation. Kelly (1969, 323) states 'St Augustine was well aware of what was later to be called integrative motivation: "It is clear enough that free curiosity has a more positive effect on learning that necessity and fear".' As the quote from St Augustine implies, the reference is to an intrinsic interest in learning the language but not to an integrative orientation which stresses the social-emotional aims of learning the language in order to use it to communicate with the other community.

Confusion about the nature of integrative and instrumental orientations was even confounded by the original use of the Orientation Index (Gardner and Lambert 1959). The scale contrasted the integrative and instrumental orientations and consequently led many to consider orientation in terms of this dichotomy (see Jakobovitz 1970; Kelly 1969). This is not, however, the case, as Smythe *et al.* (1972) demonstrate and as Stevick (1976) argues. In fact, although they may have initiated the dichotomy for purposes of measurement, Gardner and Lambert obviously do not see them in this way as indicated by the fact that they subsequently considered other possible orientations such as a manipulative or machiavellian one and argued for developing a procedure for assessing orientations which did not depend upon a categorical system (Gardner and Lambert 1972).

Achievement

Achievement in a second language traditionally has been viewed in terms of knowledge about the structure of the language such as vocabulary, grammar, pronunciation, or in terms of proficiency in the four basic skills, speaking, understanding, reading and writing. More recently, attention has focused on communicative competence (see, for example, Jakobovitz 1970; Brumfit and Johnson 1979). Regardless of the individual preference, however, it is clear that these various interpretations of achievement all deal with the extent to which language material has been taken in by students and made part of their own cognitive or behavioural repertoire. When teachers or researchers assess a student's level of development in the second language, they focus in a complex way on the combination of structural knowledge and skill and often, too, communicative competence.

One might seriously ask, however, whether this truly assesses second language achievement. Proponents of the communicative competence model have criticized emphasis on the knowledge and skill facets because such linguistic competence often does not eventuate in communication. But, of course, the same criticism can be levelled at communicative competence if it does not result in communicative performance. This play on terms 'linguistic competence', 'communicative competence', and now 'communicative perfor-

mance' is not facetious. The argument being developed here is simply that the acquisition of a second language must of necessity involve more than competence. What value is there in knowing something of the structure of the language or in having developed some behavioural skills if the student does not make use of the language in real-life communicative situations or does not wish to improve his competence in the language in order to facilitate communication? I have met many people who complained that they studied French for five or six years and obtained good marks but never learnt to use the language. One might fault the nature of the programme, certainly, but surely the programme is not solely to blame. Why did these people not try to communicate, no matter how haltingly, in their second language with members of the other language community? I still meet students of language today who, despite their access to language laboratories, communicational drills, and what have you, still shy away from speaking the language with a native speaker, complaining of their personal inadequacy. Is it possible that these students have the competence but lack the performance component?

The perspective put forward here, then, would include in the definition of second language achievement as well as the various indices of competence – be they knowledge, skill, or communicative competence – a desire on the part of the students to further their knowledge of the second language and an interest in making use of any opportunity which arises to improve proficiency. As was the case when communicative competence was proposed as an alternative to linguistic competence, acceptance of this broader definition could have repercussions on language teaching methodology. Instead of directing attention to content, now the teacher would also be concerned with the interests and concerns of individual students, awakening in them an actual desire to make use of the language and to further their competence beyond the confines of the language classroom. A similar perspective has been suggested by Stern (1983) who proposes a curriculum model for language teaching that includes such a broader interpretation of achievement in its objectives.

There has recently been another development in the assessment of second language achievement which appears to have profound implications because it links the skill component with the performance aspect and the individual's perception of competence. It is a self-rating procedure, but, unlike other self-rating methods that ask individuals to rate how well they speak or understand or read the language, etc., this procedure focuses on specific linguistically and socially relevant skills. This 'can-do' technique proposed by Clark (1981b) contains 33 items; 14 items deal with speaking skills, 11 with listening comprehension, and eight with reading proficiency. These scales differ from other self-rating techniques in that they present behaviourally-specific skills on which individuals rate themselves. These items differ in degree of difficulty and complexity so that they can be arranged in a Guttman-type scale. Items from the speaking skills section, for example, vary from 'Count to 10 in the language' to 'Describe the role played by Congress in the United States government system'. As described by Clark, individuals rate their level of skill on a four-point scale labelled 'quite easily', 'with some difficulty', 'with great difficulty', or 'not at all'. In addition to providing a relatively detailed assessment of individuals' self-perceptions of competence, total scores on these scales evidence good relationships with objective assessments of similar skills (Clark 1981a). It seems highly

likely that this procedure will play an important role in future studies in this area.

The plan of the book

This book is concerned with the role of attitudes and motivation in developing achievement in a second language. In order to set the stage, however, it is first necessary to review the research literature concerned with the relation of language aptitude and personality to achievement in a second language. Chapter 2 is devoted to this task. This introduction is necessary because language aptitude and personality variables are the other two major classes of individual difference variables which have been posited as factors involved in second language achievement. It also helps to highlight a point made earlier that there is little substitute for empirical verification, because it seems clear from this review that, although language aptitude is important in second language acquisition, the evidence in support of personality variables is less convincing.

Chapter 3 considers the research evidence dealing with specific attitudes and motivation. Attention is directed mainly at two classes of attitudes, the educationally relevant 'attitudes toward learning the language', and the more socially relevant 'attitudes toward the other language community'. This focus on relevance leads to a consideration of the specific role played by attitudes and the conclusion that they are important primarily as supports for motivation. An in-depth analysis of the motivational construct helps then to clarify the processes by which attitudes and motivation influence second language acquisition, and leads to the generalization that a complex of attitudes and motivation, referred to as an integrative motive, underlies the successful acquisition of a second language.

Chapter 4 continues this line of reasoning by reviewing in detail studies which have employed multivariate approaches in the investigation of attitudes and motivation in second language acquisition. This review distinguishes between studies which have employed a factor analytic strategy, generally but not always using versions of the Attitude/Motivation Test Battery (see Appendix A), and those that have used an alternate analytic strategy, multiple regression, and generally different types of measures. It would be an oversimplification to conclude that all studies in the former category support the hypothesized relation of attitudes and motivation to language achievement, while those in the latter do not, but in general the two classes of studies do not support each other. Because the apparent contradiction is important, it is examined in some detail, and the interpretative difficulties associated with the use of multiple regression are highlighted as they apply to this area. Researchers are also cautioned on the importance of controlling for possible confounding influences of the teacher and course of study. The chapter concludes that the bulk of the research evidence supports the proposition that second language acquisition is facilitated by an integrative motive.

Chapter 5 adopts a different focus. Rather than asking what effects attitudes and motivation have on second language acquisition, attention is directed toward the influence of second language acquisition and experience on attitudes and motivation. This review centres on the possible effects of three different kinds of experiences, bicultural exchange programmes which de-emphasize

language training but stress culture contact, regular language courses which have some language training but little contact, and intensive language programmes. In view of the expectations of many researchers, language teachers and boards of education, these results are perhaps the most surprising in that they suggest that the effects tend to be minimal, particularly where the experience is extended. The generalization appears warranted that changes appear mostly in those whose experiences promote changes. The act of learning a second language in and of itself does not appear sufficient to evoke changes in attitudes and motivation. Even Burstall's (1975) claim that 'nothing succeeds like success' fails to find much support.

If attitudes and motivation are important in second language acquisition, it seems a meaningful question to ask whether family attitudes are also implicated. Chapter 6 investigates this issue. Although the research literature on this topic is not very extensive, there are suggestions that more attention is being directed to it. To date the findings are encouraging, particularly with respect to what is dubbed the parents' passive role in the language learning process.

Chapter 7 shifts emphasis once again and centres not on empirical studies but rather on theoretical models of second language acquisition. Seven models are highlighted, three which focus more on linguistic processes, and four which consider the social psychological implications of second language acquisition. Each model is presented in detail in order to emphasize their unique contributions, but it is argued that, despite some conceptual and terminological differences, they are all relatively similar, diverging primarily in their emphases. The models are important because they focus attention on the different aspects that should be considered when trying to understand the language learning process. It becomes clear very quickly that it is necessary to specify precisely the contexts which are being considered, namely, the young child in a bilingual home, the student in the formal school class, the beginning student, or the more advanced learner.

Chapter 8 directs attention to one more theoretical formulation, the socio-educational model which is concerned with the process of second language acquisition among students registered in formal language courses. This model was not developed to incorporate the previous ones. In fact, it grew out of one of them (Lambert's (1963; 1967) social psychological model), and in its major respects predates many of the others. It improves on the others, however, because it provides clear definitions of the major components and permits empirically testable deductions. Moreover, unlike the previous ones, this model is amenable to direct empirical test. Examples of these texts are presented and discussed. The difficulties inherent in testing causal hypotheses from correlational data are emphasized, but the importance of continued tests is stressed. It is argued that only with clearly articulated and testable models will we ever be able to fully understand the factors involved in second language learning.

Chapter 9 is an epilogue. It attempts to draw together the various themes discussed throughout the book, and to highlight what appear to be the major concepts in this area. From this perspective, some exciting new research directions seem particularly salient, and these are discussed briefly. The conclusion that emerges is that there is a solid body of knowledge that supports a social psychological perspective of second language acquisition, and that future research along these lines offers even more promise.

2

Individual differences in second language achievement: focus on language aptitude and personality

Overview

This chapter directs attention to the potential role played in the second language learning process by two classes of variables, language aptitude and personality. Discussion of the first class of variable centres on the historical development of the concept of language aptitude and considers the nature of the underlying components (or abilities) and their relation to proficiency in the second language. To date, research in this area has been orderly and it is relatively easy to trace the development of the underlying constructs and to indicate how they relate to various aspects of second language achievement.

The second class of variables is much more diffuse and the logic linking various personality variables to second language achievement is not always clear. In some instances the theoretical rationale actually appears stronger than the empirical support, but more frequently this research area seems to be based primarily on vague hypotheses without a clear analytic framework. It isn't possible to provide a distinctly unified theme in this area, and as a consequence one can only focus on empirical findings with respect to specific personality characteristics.

It seems necessary to consider the research literature in these two areas in order to understand more fully the role of individual differences in second language achievement. It is too easy to conclude that Mary or John has an aptitude for languages simply because she or he does well in language classes or seems to acquire proficiency in a language relatively effortlessly. Such an after-the-fact explanation might be perfectly valid, but it does little to tell us what ability characteristics differentiate the *potentially* successful second language student from the unsuccessful one. Similarly, to conclude that John and Mary are successful in their language study because they have the personalities for it may be very accurate. This doesn't, however, give us any information about the relevant personality attributes which may portend success or just why some personality characteristics might promote second language proficiency.

There has probably always been a belief that there was some special attribute associated with learning a second language. Most language teachers that I have talked with feel that there is something special about their more successful students, though there is not too much agreement on just what this is. This is evident in a study of teacher's perceptions of successful and unsuccessful language students conducted by Naiman *et al.* (1975). They found that teachers' descriptions could be classified under five headings, personality characteristics, classroom behaviour, general learning style and aptitude, attitude, and specific

Table 2.1 Frequency of each class of description for successful and unsuccessful language learners

	Successful	Unsuccessful	Total
Personality characteristics	59	33	92
Classroom behaviour	64	63	127
General learning style and aptitude	71	70	141
Attitude	79	36	115
Specific learning techniques	69	15	84
Total	342	217	559

learning techniques. These categories were based on written descriptions of a total of 113 good and 95 poor language learners made by 85 language teachers. Each teacher was asked to describe two successful and two unsuccessful language students, but obviously many teachers did not provide four descriptions. Table 2.1 summarizes the number of times characteristics for each classification were mentioned in reference to successful and unsuccessful students.

A chi-square analysis reveals an association between the type of student (successful versus unsuccessful) and class of description, $\chi^2(4) = 31.79$, $p < .01$. Analysis of specific categories reveals, however, that the frequency of personality attributes associated with type of student does not differ from what would be expected on the basis of the frequencies in all categories. Significant departures are obtained in only three cells. General learning style and aptitude are mentioned as contributing factors for unsuccessful students more than would be expected ($\chi^2(1) = 4.25$, $p < .05$), whereas specific learning techniques are mentioned more than expected for successful students ($\chi^2(1) = 6.03$, $p < .05$), and less than expected for unsuccessful ones, ($\chi^2(1) = 9.51$, $p < .01$).

What is not evident in Table 2.1, though it is in the table from which it was derived, is that some disagreement exists even within the categories. Thus, both extrovert and introvert are given as personality characteristics of successful students (presumably not by the same teachers), while shy characterizes both successful and unsuccessful students. These apparent inconsistencies are not frequent nor, however, are they truly inconsistencies. They reflect what is quite obviously a very complex situation. It is not unreasonable to assume that a shy individual could achieve a high level of achievement in a second language or could be a dismal failure. Furthermore, one could as reasonably argue that one must be extroverted to successfully learn a second language, or one could muster arguments that an extroverted individual would not be highly successful in acquiring a second language. It seems quite probable that such disagreements do not represent faulty perceptions of the situation, merely the complexity of the language learning process.

Clearly, much more research should be directed toward teachers' perceptions of successful and unsuccessful second language students. Their views may not be veridical, but, since they are in the front ranks as it were, language teachers are in the best position to see associations between specific attributes and success in second language study.

Consistent patterns across teachers could be informative. In addition to telling us something about the characteristics of the successful student, they

might also tell us more about the teacher's role in identifying achievement as well as other factors operating in various classroom environments.

The sections to follow do not adopt this strategy. Instead, they focus on the research literature which looks at the relation of either language aptitude or specific personality measures to indices of proficiency in the second language. In each case, the inference is made that if there are significant correlations this suggests that individual differences in aptitude or personality are responsible for the differences in achievement.

Language aptitude

Initial attempts to identify successful and unsuccessful second language students appear to have focused primarily on the concept of intelligence (Henmon 1929). Given the nature of the times, this would seem a very reasonable strategy. Intelligence testing was popular in psychology and education, and the language programmes were highly academic in nature. Besides, it would be expected that individual differences in intelligence would relate to achievement in most second language courses, as they would in most pursuits. Such relationships presumably are due to the fact that the more intelligent students better understand the nature of the language learning task, more readily comprehend explanations provided by the teacher and/or the learning materials, and are more likely to deduce principles and develop techniques to facilitate learning.

In the 1920s, however, the first attempts at developing what were then termed 'special prognosis tests' were made (Henmon 1929). Investigations by Henmon (1929), Rice (1929), and Symonds (1929) demonstrated that in fact the tests were special in that they correlated more highly with achievement in a second language than did indices of intelligence.

One example of these early tests is the Foreign Language Prognosis Test, Form B (Symonds 1930; 1958), which consisted of four subtests. In the first subtest, word translation, students were given 10 minutes to compare a paragraph written in Esperanto with its English equivalent and, based on this material, to identify the English equivalents of 30 Esperanto words. The second subtest was artificial language. It required 12 minutes, during which students read vocabulary items, grammatical rules, and four sample sentences, and then translated 20 sentences, 10 from English into the artificial language and 10 from the artificial language into English. Subtest three was sentence translation and required 12 minutes to complete. Students examined 26 vocabulary items and then completed a multiple choice test in which they were given an English sentence and four possible Esperanto translations. As they progressed through the items, they were given additional information about Esperanto such as verb endings for tenses, rules for pluralizations, forms for interrogative and possessive pronouns. The four subtest, formation of parts of speech in English, allowed students 10 minutes to change 50 words to other parts of speech, such as verbs to nouns, nouns to adverbs. Although the underlying abilities were not identified, it is clear that much of this test was orientated toward language as a grammar/translation activity, which characterized many language programmes of the day.

Other foreign language prognosis tests were produced in the 1920s, but they are not used much today. These include the Iowa Foreign Language Aptitude

Examination (Stoddard and VanderBeke 1925) and the Luria-Orleans Modern Language Prognosis Test (Luria and Orleans 1928). In addition to these published tests, there are others such as the Barry Prognostic Language Test (Rice 1929) and the Todd Linguistic Aptitude Test (Todd 1929).

Although test construction techniques have developed considerably since the 1920s, there is still a remarkable similarity in the types of tests in use then and now. The earlier tests tended to involve measures of English language skill or 'miniature' language learning exercises, and current tests assess comparable skills. These present-day tests had their beginnings in the 1950s when researchers became interested in the concept of human ability. It was probably encouraged, moreover, by investigations and criticisms of the earlier prognosis tests. Kaulfers (1939), for example, felt that such tests were of limited value, a belief which was later reinforced by the findings of Wittenborn and Larsen (1944). They factor-analysed a battery of special prognosis tests, indices of intelligence, and measures of proficiency in college German and demonstrated that the special prognosis tests shared considerable variance in common with indices of intelligence but not with achievement in German!

Three modern tests

There are currently three language aptitude batteries commonly used. The Modern Language Aptitude Test (MLAT) (Carroll and Sapon 1959) is appropriate to students as young as grade nine (14 years old). The Language Aptitude Battery (Pimsleur 1966) can be used beginning in highschool (14 or 15 years of age). The Elementary Form of the Modern Language Aptitude Test (Carroll and Sapon 1967) is appropriate for students in grades three to six (eight to 11 years old). In general, the abilities tapped by this latter test are assumed to be similar to those tapped by the version for older students.

Carroll (1974) argues that language aptitude comprises four abilities, and this interpretation underlies measurement in this area. 'Phonetic coding' is considered the most important and is defined as the ability to both code and assimilate phonetic material and hold it for long periods of time in memory. 'Grammatical sensitivity' is viewed as an awareness and appreciation of the functions of grammatical elements in one's own language. 'Memory ability' refers to the capacity to remember large amounts of material, and, although it conceivably involves the use of some mnemonic system, this is not specified. 'Inductive language learning ability' involves the ability to induce patterns of the language from the primary language data and is seen as conceptually similar to general reasoning.

The MLAT (Carroll and Sapon 1959) consists of five subtests, number learning, phonetic script, spelling clues, words in sentences, and paired associates. Testing time for the full battery is approximately 65 minutes, while the short form, the last three subtests, requires 40 minutes. The subtests of the MLAT were designed to tap the four abilities described above. In research leading to the development of the test, Carroll (1958) factor-analysed correlation matrices derived from batteries of tests administered to two different samples of airforce personnel taking a one-week trial course in Mandarin Chinese. The tests were not identical for the two samples but did represent a broad spectrum of verbal ability tests in order to determine the

nature of language aptitude. This study consequently helped to delineate the dimensions of language aptitude and to show which factors and tests were related to second language achievement. It was partly on the basis of this study as well as subsequent research that the above abilities were identified as components of language aptitude (cf. Carroll 1963; 1974).

The number learning test is described as a measure of both a memory component and general auditory alertness (Carroll and Sapon 1959). Subjects hear a new language for numbers, and, after some practice using this language, are required to translate from the new language to English. The phonetic script test measures both phonetic coding and memory. In the test, subjects hear sets of four similar speech sounds which are paired with an orthographic script. Following a series of such sets, subjects are asked to indicate one speech sound which is repeated from each set. The spelling clues test depends upon English vocabulary knowledge and phonetic coding ability. It looks like a vocabulary test in that subjects must choose, from five alternatives, the word which is nearest in meaning to a test word; it is unique in that the test word is spelled as it is pronounced (i.e., phonetically). The words in sentences test measures grammatical sensitivity. Subjects are presented with a set of key sentences in each of which a word or phrase is underlined. In a sentence (or sentences) following each key sentence, five alternative words or phrases are underlined, and subjects must select the one that performs the same function as the item from the key sentence. No grammatical terminology is used in the test. The paired associates test assesses rote memory. Subjects are given a total of four minutes to memorize 24 'Kurdish'-English pairs. Retention is tested by means of a multiple choice test in which the 'Kurdish' words are presented as stimuli, and the response alternatives are five of the English words contained in the original list.

It is clear that, although these subtests are selected to isolate abilities presumed to be important in second language learning, they are nonetheless similar in style to the early special prognosis tests in that they involve either knowledge of English or miniature artificial language learning situations. In the above descriptions, no mention was made of inductive language learning ability with respect to any one test. Carroll (1962) states that this ability is not measured by any of the MLAT subtests. Gardner and Lambert (1965), however, present data suggesting that this is not the case. In a factor-analytic study of the relationships among 24 variables, including measures of language aptitude, intelligence and achievement in French, they obtained, among others, one factor which they identified as 'linguistic reasoning'. This factor received appreciable loadings from all five MLAT subtests, three measures of French achievement and the reasoning test of the Primary Mental Abilities Test Battery (Thurstone and Thurstone 1941). This latter test is heavily saturated with an inductive reasoning factor (Thurstone and Thurstone 1941, 6), suggesting that this common component of variance of the MLAT subtests probably does reflect an inductive language learning ability.

The study by Gardner and Lambert (1965) generally supports Carroll's (1963, 1974) assessment of the role played by the MLAT in identifying basic abilities involved in the learning of a second language. Four factors were extracted, each of which linked one subtest of the MLAT with measures of French achievement, suggesting a direct association between one ability and one aspect of French

achievement. A dimension of French vocabulary knowledge shared variance in common with the phonetic script test, leading to the conclusion that phonetic coding 'is not specific to oral-aural skills' (p. 197), in that it 'enables the individual to impose a meaningful code on (any) incoming linguistic material thus ensuring its retention' (p. 197). School French achievement was associated with scores on the words in sentences test, suggesting that, in this sample at least, grades in French were dependent upon grammatical sensitivity. Oral French reading skill shared variance in common with the number learning test. Since it measures memory and auditory alertness, the generalization seems reasonable that, in order to orally reproduce foreign language material, students must be alert to phonemic differences and be able to retain them for subsequent use. A dimension of 'relative French sophistication' was so named because the only common component underlying the French achievement measures seemed to be a high degree of difficulty. The spelling clues test contributed to this dimension suggesting that it predicts who will be able to infer meaning from relatively complex material.

The Modern Language Aptitude Test - Elementary Form (EMLAT) (Carroll and Sapon 1967) was developed for students in grades three to six and consists of four subtests. These are very similar conceptually to subtests of the MLAT but the difficulty level is appropriate to younger children. The hidden words test requires that the children find a synonym for words that are presented in their booklets in a kind of phonetic spelling. This test is similar to the spelling clues test of the MLAT and presumably measures vocabulary knowledge and a sound symbol association ability. The matching words test is comparable to the words in sentences test of the MLAT in that two sentences are presented, and students must identify the word in a second sentence that has the same syntactic function as a particular word in the first sentence. In the finding rhymes test, the student must select a word which rhymes with a stimulus word. There is no comparable test in the MLAT, but it is assumed that this test measures sound discrimination, an ability tapped by the phonetic script test in the MLAT. The number learning test requires students to learn the names of numbers in an artificial language and then write down the number when they hear it in the new language. The assumed underlying abilities are memory and auditory alertness.

The Language Aptitude Battery (Pimsleur 1966) appears similar to the MLAT in many respects. It consists of six sections, the first two depending simply on verbal report. Part one, grade point average, requires that subjects report their most recent year-end grades in English, mathematics, science and history (or social science), and Part two, interest, is based on the students' self-ratings on a five-point scale of their interest in studying a foreign language. This way of obtaining such information has been criticized by Hakstian (1972) because it is susceptible to error and tends to be unreliable. Part three consists of a vocabulary test. Part four is the language analysis test. In this test, subjects are presented with a list of words and phrases in Kabardian (a fictitious language) and their English equivalents. From these, subjects must deduce how to say other things in Kabardian and select the correct answer from alternatives provided. In Part five, sound discrimination, subjects are taught, by means of a tape recording, three similar-sounding words in a foreign language. They then hear sentences spoken in the language and must indicate which of the three words each sentence contains. Part six is the sound symbol test. Subjects hear a

two- or three-syllable nonsense word and must indicate which of four printed alternatives it was.

Pimsleur (1966) assumes that the 'talent' for languages comprises three components and that the LAB assesses these components. One, verbal intelligence, involves both familiarity with words (assessed by the vocabulary test) and the ability to reason analytically about verbal materials (assessed by the language analysis test). The second is motivation to learn the language and is measured by the interest subtest. The third component is an auditory ability assessed by the sound discrimination test and the sound symbol test. This analysis is not so fine-grained as that by Carroll but is conceptually very similar. Although Carroll (1958) was concerned with assessing language aptitude, one of the factors he isolated shared variance in common with a number of the subsequent MLAT subtests, and it was identified as 'linguistic interest'. This label was applied because this dimension appeared to reflect 'an increment of test performance ascribable to a specific motivation, interest, or facility with respect to unusual linguistic materials' (p. 12). Furthermore, the two abilities, verbal intelligence and an auditory ability, seem similar in their assessments to abilities measured by the MLAT. This is quite reasonable given that Pimsleur (1966) reports that he was influenced in his work by the development of the MLAT. It would be a worthwhile investigation, however, to conduct a study to determine the degree of correspondence between the two types of tests and their factorial relationship to various measures of achievement in a second language.

Validity data

Of all the variables studied as correlates of second language achievement, language aptitude is probably the most consistent predictor from a sampling point of view, even though there is considerable fluctuation in validity coefficients. Carroll (1963) reports that 28 validity coefficients for the MLAT for students at the highschool level ranged from .25 to .78 with a median of .55 and that 25 coefficients obtained from college samples varied from .13 to .69 with a median of .44. Comparable values are reported by Gardner, Clément, Smythe and Smythe (1979). They present correlations between the MLAT and French grades for 28 school samples; these range from .19 to .59 with a median of .42. Pimsleur (1966) reports that correlations of the MLAT with course grades of 18 groups of French, Spanish, and German students in grades nine to 11 varied from .25 to .78 with a median of .53. Validity coefficients for the EMLAT are comparable. Correlations between total scores on the EMLAT and grades in either French or Spanish for 40 samples of same-sexed children in grades three to six are reported in the manual. These range from .23 to .84. Harper and Kieser (1977), furthermore, quote validity coefficients for students in grades seven to eight which range from .43 to .63 with a median of .54.

Comparable data are not available for LAB, but what is available suggests similar relationships. Pimsleur (1966) reports a multiple correlation of .71 between LAB scores and grades for junior and senior highschool students. Pimsleur *et al.* (1962) obtained a multiple correlation of .65 with an earlier experimental version of LAB and the Co-operative French Test among college students and a value of .41 with achievement in both speaking and listening comprehension. At the secondary school level, Pimsleur (1963) reports multiple

correlations of .87 and .61 for Co-operative French Test scores and measures of French auditory comprehension respectively and values of .55 and .31 involving similar measures in Spanish.

Although the validity coefficients for LAB appear generally to be very high, it must be emphasized that these are multiple correlation coefficients, which would tend to over-estimate the relation of LAB scores with achievement. Multiple correlation coefficients based on regression weights calculated on the sample data tend to be high because the regression weights are determined in order to make the correlation as large as possible. Often, on cross validation, the multiple correlations decrease considerably. (This criticism is not applicable to the values reported for the MLAT or the EMLAT since those coefficients are not multiple correlations.) First order correlation coefficients comparable to those cited for the MLAT are reported for the LAB for students in grades six to 10 (Pimsleur 1966). Correlations involving total LAB scores ranged from .44 to .79 with final grades, .39 to .78 with scores on listening comprehension tests, and .31 to .72 with reading comprehension performance.

As these results indicate, there is ample evidence to suggest that there is an association between scores on language aptitude tests and the degree of proficiency in a second language. Such associations are typically interpreted as suggesting that language aptitude is involved in determining the level of achievement in a second language. The alternative interpretation that language training influences language aptitude does not have empirical support. As part of his survey of foreign language achievement of university and college language majors, Carroll (1967) found no evidence that prior language training influences language aptitude, at least as measured by the MLAT.

Presumably, language aptitude is important in second language learning because the abilities assessed operate as mediators in the learning process. For example, individuals who are sensitive to aspects of grammar in their own language will tend to be sensitive to grammatical components in the second language. The process linking abilities to achievement in any endeavour is not clear. In the present example, it may simply mean that individuals with this ability are more interested in grammatical variations in the other language and thus look out for them, or that such individuals are more attuned to grammar, or that there is a passive transfer of information from the second language onto first language skills.

Criticisms of the language aptitude concept

This type of interpretation has been questioned; however, the validity of the counterarguments is tenuous. Oller (1979), for example, argues that all tests, language aptitude batteries, attitude scales, and personality inventories involve, in both their instructions and material, the comprehension and production of complex language material. He suggests, as a consequence, that these various measures are all tapping a common factor of language intelligence, and it is this common factor which accounts for correlations between measures of second language proficiency and language aptitude, or attitudes, or personality. Such an argument would require a common underlying factor in studies involving combinations of these variables, and, as we will see later in this chapter and again in Chapters 3 and 4, there is no evidence for this. Similarly, the study by

Gardner and Lambert (1965), discussed earlier, indicated that there were clear language ability components factorially linked with specific language skills which were independent of indices of intelligence.

A second criticism was made by Neufeld (1974), who questioned whether language aptitude was a meaningful concept since most individuals acquire a first language. Gardner (1977) has argued that the concept of language aptitude is obviously important, at least in formal language learning contexts such as the classroom, because of the impressive validity coefficients cited for such tests and referred to above. Obviously, however, this is unduly restrictive in that the effects of verbal ability are evident in individuals' language regardless of where or how it is acquired. Although Neufeld (1974) is correct when he claims that most individuals acquire at least a basic knowledge of their native language, he does not apparently recognize that even here there are extensive individual differences. Furthermore, when one considers more secondary features of language such as vocabulary size, diversity of expression, complexity of sentence construction, and the like, individual differences are even more pronounced, and such differences have considerable implications for communication. They are not, as Neufeld (1974) implies, mere frills which are of interest only to language teachers and test constructors concerned with assessing language knowledge. Aside from their actual value in communicating material, such aspects have other communicational significance in that they provide information about the communicator. Giles and Powesland (1975) provide a wealth of empirical data showing that reactions to individual speakers are influenced by such factors as language style, accent, type of language, and furthermore, that an individual's speech is in turn influenced by such factors in the speech of his or her interlocutors.

Neufeld (1974) also questions the utility of the concept of language aptitude because this somehow implies innate differences, and such nativism should be rejected out of hand because most people learn at least one language. This argument would seem to be without much substance, however, in that there are, nonetheless, individual differences even in this task in level of achievement and, of course, in the speed of acquisition. Obviously, measures of language aptitude are dependent upon acquired knowledge (e.g., the MLAT spelling clues test and the LAB vocabulary test depend on vocabulary knowledge), but this does not rule out an innate component. Carroll (1974) considers both nature and nurture as contributors to language aptitude, though he points out the difficulty of conducting definitive studies which would disentangle contributions from the two.

Clearly, such research would be difficult, if not impossible. It is, at any rate, unnecessary. The important point would appear to be that language aptitude does influence the degree to which languages are acquired, and further research in this area would clarify our understanding of specific abilities that are involved. Rather than being fatalistic, accepting the rather obvious proposition that second language acquisition is mediated by specific abilities raises many exciting possibilities. For example, would it not be possible to tailor courses to capitalize on individuals' abilities, or to compensate for specific inabilities? Streaming students is not currently a popular educational strategy because it smacks of elitism, but surely it is good pedagogical practice to orientate teaching toward students' strengths?

The aims, objectives and nature of second language programmes have changed considerably in the last 25 years, and one interesting possibility is that some different abilities may be involved now. A potentially important project, therefore, would seem to be a re-investigation of ability factors along the lines of Carroll's (1958) original study. Research in verbal learning has uncovered mnemonic techniques which facilitate second language learning (see Atkinson 1975, Paivio and Desrochers 1979; and Pressley *et al.* 1980), and these could suggest ability variables previously not investigated. Similarly, researchers such as Bialystok and Fröhlich (1977; 1978) and Bialystok and Howard (1979) have identified learning strategies which seem important, and these too could be added to a battery of ability tests. What seems abundantly clear is that ability variables have to be considered as important aspects of second language acquisition, and progress in understanding the learning process could be made by investigating them further. A meaningful question is whether or not there are other classes of variables that may also be important. The rest of this chapter considers one other class, personality variables.

Personality

It is difficult to conceive of a comprehensive theoretical model linking personality attributes to second language achievement, though one can, of course, think of specific personality attributes which might be related to such achievement (cf. Schumann 1978b). Clearly, many teachers see associations between personality attributes and the successful acquisition of a second language. Naiman, Fröhlich and Stern (1975) found that teachers viewed successful students as meticulous (perfectionist), mature, responsible, self-confident, extrovert (bubbly, outgoing), independent, passive, shy and introverted. Unsuccessful students, on the other hand, were most frequently described as demonstrating a lack of self-confidence and as being timid, shy, careless, afraid to express themselves and nervous. It might be noted in passing that, in some instances, traits associated with both successful and unsuccessful students are the same.

Rivers (1964) has identified similar personality correlates of second language achievement, but, rather than suggest a direct link with proficiency, she implies that they will be mediated by motivation. She states (p. 82), '...the previous history and the personality of the individual are important and must be taken into account in endeavouring to understand his motivation. Such highly personal motives as fear or anxiety, learned through past experience, may combine with learned social motives, such as desire for status in a group and for social approval, creating complex reactions which can work powerfully toward progress in a foreign language or toward inhibiting oral language responses'. And later, Rivers (1964, 96) states, 'Because of the acquired motivation in our society to conform, he [i.e., the student] may prefer to tone down his accent and intonation to the average of the group'. Such comments clearly suggest that achievement in a second language should be related to such personality attributes as anxiety, status seeking, need for approval, social conformity, and moreover that these personality variables will be important to the extent that they influence motivational levels.

In his review of the literature, Brown (1973) also discusses a number of personality and cognitive style variables which might be implicated in second

language acquisition. He differentiates between two classes of personality variables. One, identified as egocentric factors, includes imitation, egoism and inhibition. The other, social variables, refers to such characteristics as empathy, introversion/extroversion, and aggression. He also proposed that a third class of variables, cognitive styles, warranted attention though, as he said, 'Little if any serious research has been done on cognitive style in second language acquisition' (p. 238). His analysis of the language learning situation led him to recommend focusing attention on four types of cognitive style, reflective/impulsive thinking, broad versus narrow categorizing, skeletonizing versus embroidering, and belief congruence/contradiction. The need to consider many potential personality variables is a recurring theme. As early as 1962, Pimsleur *et al.* had suggested that new factors should be investigated in order to understand individual differences in second language acquisition. They proposed that 'among such new factors, the personality of the student and the characteristics of the teacher are those which appear most promising and are most in need of research attention' (p. 26).

As we shall see below, however, the research that has been conducted only partially supports such as optimistic outlook, and further research is urgently required before firm conclusions can be drawn concerning the role of personality attributes. Judging from the relatively few publications which are directly concerned with personality correlates of second language achievement contained in an annotated bibliography prepared by Hodge (1978), the literature is not extensive. Although she presents a good coverage of articles which are relevant to the general research question, Hodge lists only 20 entries under the heading, 'The Degree of Acquisition of a Second Language and its Relationship to Personality', and many of these are theoretical and speculative as opposed to empirical articles. This lack of published empirical research might simply be indicative of the unimportant role personality attributes actually play since journal editors are often reluctant to accept for publication articles with negative findings. Such a conclusion is supported by the generally weak relationships between personality variables and second language achievement reported in the literature.

Studies of multiple personality variables

A series of studies have been conducted which use multivariate statistics to investigate the potential role in second language acquisition of a number of personality variables. Tucker *et al.* (1976), for example, investigated correlates for three groups of students, an 'early immersion' group ($n = 17$), a 'late immersion' group ($n = 28$), and an English control group ($n = 19$). The first group began intensive French language study in kindergarten (age five years), the second group studied French for one period per day until grade seven (13 years old) when they began intensive French language study, and the third group began studying French for one period per day in kindergarten and were still in such a programme. All students were in grade seven when the study was conducted. Four types of measures were obtained from each student. Cognitive measures were obtained by means of the Canadian Lorge Thorndike Intelligence Test (Lorge *et al.* 1967) and the Modern Language Aptitude Test (Carroll and Sapon 1959). Personality measures included the Embedded Figures Test

and the Junior-Senior Highschool Personality Questionnaire. Attitudinal/motivational measures were adapted from Gardner and Smythe (1975a). Measures of achievement in French included a measure of general French achievement, a test of reading comprehension, a listening comprehension test, and an oral production test.

The results were presented in the form of a multiple regression analysis for each measure of French achievement using as predictor variables four factor scores obtained from preliminary factor analyses. (For a general discussion of difficulties with this approach see Chapter 4). The four predictor variables were aptitude, personality (emotional stability, conscientiousness, and assertiveness), attitude and motivation, and cognitive style (field dependence/independence). Only one predictor, attitude and motivation, contributed significantly to the prediction of all four measures of French achievement and was, in fact, the only significant contributor to two indices, reading comprehension and oral production. Field independence contributed significantly to general French achievement, and aptitude contributed to listening comprehension. Some interaction effects with type of student (i.e., early versus late immersion versus English control) did indicate that personality variables were important in some contexts; personality was related to listening comprehension and oral production among the late immersion students. For this group, achievement appeared to be associated with being assertive, emotionally stable, adventure-some and conscientious.

Hamayan *et al.* (1977) extended this line of research focusing attention on personality and language background variables. Subjects in this investigation were 43 early immersion students, 45 late immersion students, and 34 English controls. The characteristics of the background language training for these students were the same as those in the preceding study, and again all subjects were in grade seven at the time of testing. The predictor variables in this multiple regression study were the Junior-Senior High School Personality Questionnaire (1968) and a series of language background variables. These were factor-analysed and yielded seven factors; the resulting factor scores were entered into regression analyses with four different indices of French achievement, general French achievement, reading comprehension, listening comprehension and oral production. There was no significant prediction of listening comprehension. One personality factor, shyness/conscientiousness, was the only significant predictor of reading comprehension, suggesting that 'a high degree of reported shyness/conscientiousness was associated with low reading comprehension scores for students from all three groups' (p. 235). There were no other direct significant predictors of proficiency derived from personality measures, though they did interact with group membership. A personality dimension of conformity interacted significantly with group membership to predict general French achievement, as did shyness/conscientiousness, and another dimension of control interacted with group membership to predict oral production. Again, these results suggest that some personality variables are predictive of some aspects of second language proficiency in some language learning contexts, but the relationships appear to be largely dependent upon demands in the situation.

A similar conclusion follows also from an investigation conducted by Swain and Burnaby (1976) which was concerned with personality correlates of second

language achievement of young children in regular and immersion language classes. They obtained teacher ratings of personality attributes during their kindergarten year of 63 French immersion students and 68 pupils in the regular school programme studying French as a second language. These ratings were then correlated with the immersion children's French achievement scores in kindergarten, grade one and grade two. With the children from the regular programme, correlations were obtained on the same measures for kindergarten, and on some of the same measures at the grade one level. Two noticeable points stand out. First, many more of the correlations computed on the immersion school sample are significant than for the regular programme sample. In the former case, 36 of the 189 coefficients calculated, or 19 per cent are significant. In the latter case, five of 90, or six per cent are significant. Such results suggest that, even with very young children, the nature of the programme seems to influence the relation of personality attributes to second language achievement, though the relations are not substantial and the reasons for them are not clear. It may simply be that there was little variability in the French achievement scores for the students in the regular programme, though this was not mentioned in the report. Second, the bulk of the significant relationships, 28 of 41, can be accounted for by two personality attributes, quickness in grasping new concepts (16) and perfectionistic tendencies (12). The first of these could reflect, to some extent, aptitude or intellectual differences, while the latter might be indicative of traits which mediate achievement in any school subject. This is not meant to de-emphasize their importance as mediators in language achievement but to raise the possibility that they may not be simple indicators of personality variables uniquely involved in second language acquisition.

Four studies have investigated the relationships between a number of personality traits and second language achievement. In one study conducted in Finland, Leino (1972) investigated the relation between Cattell's 16PF test (Cattell and Eber 1957), five measures of intelligence/language aptitude, and 18 measures of English achievement among 64 grade seven students. There were 29 significant correlations out of the 288 possible ones (10.1 per cent!) between the personality and English achievement measures. Of the significant correlations 14 involved two personality variables, general intelligence versus mental defect (seven significant correlations), and *parmia* (adventurousness) versus *threchia* (shyness). The pattern of correlations suggested that students who were proficient in the various measures of English achievement tended to be intelligent and to be conscientious and careful. The relationships were not pronounced, however, leading Leino to conclude that 'it would seem reasonable to assume that personality variables play a minor role in foreign language learning in situations where activities are teacher controlled, students having few opportunities for independence, responsibility, and initiative' (p. 39).

Two studies were conducted in Sweden by Oskarsson (1975). In the first, a sample of 53 farm management students completed four subtests measuring intelligence and creativity, eight assessing personality traits (from the EPF, a Swedish personality test), and a test of English proficiency with vocabulary and sentence subtests. Significant correlations were obtained between the English proficiency test and two of the measures, one intelligence subtest and one personality measure. This latter correlation was a negative one with a measure of 'deliberateness', suggesting that those who wish to 'work in a careful and

deliberate manner' (p. 6) will do poorly in English. Oskarsson suggests, however, that this may have more to do with test taking behaviour than language acquisition. He says, 'This would seem to indicate that the person who tends to ponder for too long over which option to pick in multiple choice items is more likely to go wrong than the person who acts on impulse' (p. 8).

In the second study, Oskarsson (1975) administered five intelligence tests, the eight personality subtests, and an English reading test to 20 vocational counsellors. Significant positive correlations were obtained between reading scores and one measure of intelligence and the personality measures of sociability and emotionality. Deliberateness correlated significantly negatively with the reading test.

The fourth study investigating the relation of a number of personality measures with second language achievement was conducted by Lalonde (1982). Participants were 88 students enrolled in introductory university French courses. They completed the Modern Language Aptitude Test (Carroll and Sapon 1959), eight tests of French achievement, three self-rating can-do (Clark 1981a; 1981b) scales of French proficiency, nine measures adapted from the Attitude/Motivation Test Battery (Gardner, Clément, Smythe and Smythe 1979), and 19 subscales from the Personality Research Form (Jackson 1974) and the Jackson Personality Inventory (Jackson 1976). Only one correlation between the personality measures and the total French achievement measure was significant. A correlation of $-.36$ suggested that those high in French achievement tended to be low in innovation. This relation was unexpected and is not easily interpreted. Two correlations of personality measures with total self-ratings of proficiency were significant. Subjects who evaluated their skills positively were high in organization ($r = .41$) and self-esteem ($r = .24$). The personality measures were independent of language aptitude but showed some meaningful correlations with an attitudinal index of integrativeness and one of motivation, supporting Rivers' (1964) link between personality and motivational attributes.

As can be seen, studies of multiple personality correlates of second language achievement do not produce clear and definitive findings. When interpreting the relationships, it is necessary to consider such factors as the nature of the language programme, the age of the students, and even possibly the format used to assess language proficiency.

Studies of specific personality variables

There has been some research which has tended to focus attention on specific personality variables even though they may not have been the only ones involved in the study. Of these, the most attention has been directed toward four attributes, field dependence/independence, sociability, anxiety and empathy.

Field dependence/independence The first specific 'personality' variable to be considered here could equally be viewed as an 'ability' variable. Field dependence/independence refers to the way individuals perceive and organize their world. Field dependent individuals tend to view their world as a total configuration and to be influenced by the whole field, while field independent individuals can separate parts of their environment from the total field. Many measures of field dependence/independence in fact employ visual tasks which

involve figures embedded in large contexts (see, for example, the Group Embedded Figures Test (Witkin *et al.* 1971). Subjects who can identify a figure within the more complex field would tend to be field independent, while individuals who have a difficult time separating the figure from the ground would tend to be field dependent.

Brown (1973) has suggested that field dependence/independence represents a merger of cognitive and affective (personality) variables, a view which appears to be shared by Witkin *et al.* (1979). They propose that individuals who are field dependent are sensitive and interested in others and are considered by others to be outgoing and gregarious. Field independent individuals, on the other hand, are more self-sufficient, tend to be analytical and are seen by others as somewhat aloof. Although different terminology has sometimes been used, these types of attributes have been hypothesized to influence second language acquisition by Kawczynski (1951), Brown (1973) and Krashen (1981).

Field dependence/independence has also been proposed by Naiman *et al.* (1978) to influence second language acquisition. They hypothesized that field independent individuals would tend to be more successful because they would be able to separate those language stimuli required to be learned from the total context, while field dependent individuals would tend to be distracted by the total learning environment.

Research concerned with the relation of field dependence/independence to second language achievement has assessed individual differences in field independence by means of embedded figures tests and has tended to establish positive associations. As indicated earlier, Tucker *et al.* (1976), found that field independence was a positive predictor of general French achievement but not of other measures. Somewhat more consistent results were obtained by Genesee and Hamayan (1980) in their study of anglophone grade one students in a French immersion programme. They report significant correlations between field independence and general French achievement, French listening comprehension and English reading proficiency but not French oral production. They also found that scores on the measure of field independence contributed appreciably to a factor also defined by a measure of non-verbal reasoning and one of favourable attitudes toward continued schooling in French. We will return to the association between indices of field independence and reasoning skills later.

Significant relations between field independence and second language achievement were also obtained by Naiman *et al.* 1978. Among a sample of university students, they found that field independence was associated with proficiency on both a French oral production and a French listening comprehension test. These positive results are in contrast, however, to the negative results obtained by Bialystok and Fröhlich (1977). They investigated the relationship of field independence (along with measures of language aptitude, attitudes, motivation and learning strategies) to French reading comprehension in samples of grade nine and 10 students (ages 14 to 15). Field independence failed to correlate significantly with reading comprehension in either sample.

With the exception of this last study, the evidence appears to favour an association between field independence and second language achievement. On the surface, the same conclusion appears to follow from the study by Hansen and Stansfield (1981). They assessed the field independence of 253 students in an introductory level university course in Spanish and correlated this with six

measures of Spanish proficiency, written examination grades, final examination, oral grade average, oral skill evaluation, final course grade, and a Cloze test. Significant correlations ranging from .19 (Oral grade average) to .35 (Cloze test) were obtained for all measures of achievement. Partialling out the effects of sex tended to raise the correlations slightly, however, partialling out the effects of scholastic ability reduced all correlations substantially. Only one, that involving the Cloze test, remained significant. That is, once the effects of scholastic ability were removed, many of the relations of field independence with second language achievement were eliminated.

Earlier it was pointed out that Hamayan and Genesee (1980) found substantial variance in common between an embedded figures measure of field independence and reasoning skills. That relation was noted in grade one children. In the Hansen and Stansfield (1981) study, it is also clear that there is an association between field independence and academic ability, in this case with university students. Such relationships cast some doubt on the meaning of the apparent relation between field independence and second language achievement. That is, are they due to the fact that the successful acquisition of a second language is mediated by a cognitive style or personality configuration which differentiates figure from ground, or are they due to a confound with ability? Before we conclude that field independence is an important determinant of second language acquisition, this matter deserves further investigation.

Sociability It makes intuitive sense that students who are sociable and willing to interact freely with others should be more successful at learning a second language than are students who are more reserved. In fact, this generalization appeared to have been amply supported by Pritchard (1952) who reported a particularly high correlation of .94 between sociability and ratings of French fluency of 33 grammar school students. Such remarkable results could be taken to mean that the search for personality correlates of second language achievement could be abandoned because they have been identified; on the other hand, they are so remarkable that they warrant closer inspection. In this investigation, the experimenter was the French teacher, and the rating of fluency was 'weighted' by estimates of each boy's usual speed of speaking French. Furthermore, the index of sociability was based on ratings of playground activity made by the experimenter and two colleagues who had known and taught the students for at least three years. In short, there were many opportunities for the ratings of both sociability and French fluency to become contaminated by unconscious experimenter bias. That is not to suggest that sociability is not related to fluency in the second language, only that the particularly high relationship is suspect.

Some support for a link between sociability and second language acquisition was also provided by Chastian (1975). He tested 80 students of French, 72 of German, and 77 of Spanish introductory university level courses, administering among other measures the Marlowe-Crowne Scale (Crowne and Marlowe 1964) which assesses the extent to which students are outgoing. He obtained significant positive correlations between this test and grades in German and Spanish, but not French.

Such ambiguity even exists with respect to the conceptual link between sociability and second language acquisition. Vallette (1964) discusses findings from a survey conducted in France by Ruth Metraux, who found that young children who were quick to learn a second language were 'the talkative,

outgoing, easily adaptable children, ever eager to express themselves' (p. 92). She reports further, however, that 'In a personal conversation, Madame Metraux underlined the fact that this conclusion was valid only for young children; with adolescents or adults, she added, often the contrary holds true.' (p. 92). Dunkel (1947) similarly hypothesized that students who were introverted would perform better in foreign languages than students characterized as extroverted and obtained some support for this expectation. Kawczynski (1951), on the other hand, has suggested that both introversion and extroversion promote success in second language learning but in different types of language programmes.

Using a somewhat different research strategy, Smart *et al.* (1970) obtained results suggesting that sociability was negatively related to second language achievement once ability is controlled. They performed a stepwise multiple discriminant analysis comparing three groups of university students on five factor scores reflecting different personality characteristics. The three groups were underachievers ($n = 13$), average achievers ($n = 58$), and overachievers ($n = 13$); assignment to the groups was based on a multiple regression analysis where indices of academic aptitude and high school grades served as predictors. That is, underachievers were those whose actual French grade was more than one standard error below what it would be predicted to be based on a knowledge of their academic aptitude and high school performance. Thus, a student might be performing satisfactorily in comparison with his or her classmates, but still be classified as an underachiever because he or she is not performing as expected given his or her ability. Similarly, overachievers are better than one would expect given a linear prediction based on their academic aptitude test scores and high school performance.

Smart *et al.* (1970) found that a dimension of 'social spontaneity' differentiated overachievers from average achievers but did not distinguish underachievers from either group. The nature of the differences was rather interesting, however. That is, overachievers were significantly *lower* in social spontaneity than average achievers, indicating that they tended to be introverted. 'They do not enjoy social activities, prefer not to be in crowds, do not spend their free time at social functions, seldom take the initiative at social gatherings, work better by themselves, and prefer to work alone' (Smart *et al.* 1970, 419). These researchers also found another dimension that differentiated the underachievers from the average achievers. They labelled this dimension 'humanistic orientation', but their description suggests that this contrast is also relevant to the potential role of sociability in second language learning. They report that, in comparison with average achievers, underachievers display 'an appreciation for poetry, painting, and sculpture, preferring thought-provoking lectures' (p. 419). Thus in this study, both overachievers and underachievers tend to be introverted.

Clearly, the issue is complex. It will be recalled that some of the teachers sampled by Naiman *et al.* (1975) characterized successful language students as extroverted, while others emphasized introversion, reflecting the same disagreement as that suggested by these findings. Smart *et al.* (1970) raise the possibility that the nature of the course might influence which personality variables would be involved (cf. Tucker *et al.* 1976; Hamayan *et al.* 1977). Perhaps it is just such a factor which causes different language teachers to consider different

personality attributes as important to second language acquisition. Obviously, however, the research literature does not permit an unequivocal conclusion as to whether sociability is positively or negatively linked with successful second language acquisition.

Anxiety It seems intuitively obvious that individuals with high levels of anxiety should be less successful in learning second languages than more relaxed individuals. The study by Naiman *et al.* (1975) demonstrates that many teachers share this perception, and at least two researchers (Krashen 1981; Rivers 1964) consider anxiety as a potent deterrent to second language achievement. Research evidence suggests, however, that the relationship is delicate and will be demonstrated only if careful attention is paid to the nature of the anxiety concept being measured and the situation in which it is being investigated.

Null or inconsistent results have been reported in some studies. Gardner and Lambert (1959), and Tarampi *et al.* (1968) investigated the possible role of audience sensitivity hypothesizing that fear of evaluation by others would interfere with language achievement. Both studies failed to demonstrate a relationship. Chastian (1975) investigated other anxiety measures but obtained inconsistent results. Although he obtained a significant negative correlation between the Sarason Test Anxiety Scale and grades in Spanish, similar relationships were not obtained with grades for students of either German or French. Furthermore, no significant correlations were obtained in any of the classes between grades and the Taylor Manifest Anxiety Scale.

There are two possible interpretations which might account for these types of results. The first is suggested by Scovel's (1978) analysis of the anxiety concept. Drawing on interpretations suggested by Alpert and Haber (1960), he proposes that we distinguish between facilitating and debilitating anxiety. He suggests that 'Facilitating anxiety motivates the learner to "fight" the new learning task; it gears the learner emotionally for approach behavior. Debilitating anxiety, in contrast, motivates the learner to flee the new learning task. . . .' (Scovel 1978, 139). From this perspective, one could argue that null results simply reflect the fact that some individuals in the sample are experiencing facilitating anxiety while others are exhibiting debilitating anxiety, and the two effects cancel each other within the sample of individuals. Similarly, significant negative relations would imply debilitating anxiety operating, while positive correlations, if they were obtained, would reflect the effects of facilitating anxiety. Although such an explanation is possible, it seems unnecessarily complex.

The second possibility is that, in order to evidence meaningful relationships, the anxiety measure must include specific reference to the second language. That is, it seems possible that individuals who become anxious when trying to use or learn the other language may achieve lower levels of achievement than individuals who do not become anxious. Although it is likely that such anxiety would have a general component so that measures of such specific anxieties would be expected to correlate with general anxiety measures, it is possible that the situational component plays a dominant role. By focusing on indices of anxiety which do not explicitly refer to the language acquisition context, researchers may miss obtaining significant relationships.

This notion is supported in the factor analytic studies of Gardner and Smythe (1975a). Included in their test batteries were two measures, French classroom anxiety and general classroom anxiety. Obviously, these two indices were

substantially correlated; students who felt anxious in any classroom situation tended also to feel anxious in the French classroom. In addition, however, the measure of French classroom anxiety also tended to share variance in common with indices of French achievement. That is, French classroom anxiety reflects both general classroom anxiety and anxiety specific to the language learning situation, and it is this latter component which tends to interfere with language acquisition.

The relative importance of a concept like French classroom anxiety is also supported by data reported by Gardner, Smythe, Clément and Gliksmann (1976). They present correlation coefficients for three measures of French achievement for each of five grade levels of students sampled from many regions across Canada with approximately 1000 students for each grade level. French classroom anxiety was among the three highest correlates in 11 of the 15 possible cases. (Obviously, the correlation was consistently negative.) The only two variables which were better predictors were language aptitude and motivation. Language aptitude was among the best three predictors in 14 of the 15 cases, and motivation was among the top three in all 15 instances.

Recent evidence suggests that the relative importance of a situationally specific anxiety component may be influenced by cultural factors. Clément, Gardner and Smythe (1977a) found that for francophone Canadians learning English the relative importance of English classroom anxiety was greater. In two samples, they obtained a factor defined as 'self-confidence with English' which included appreciable negative loadings from English classroom anxiety, English use anxiety, self-ratings of English competence, experience with more than one language, attitudes toward the English course, indices of motivation to learn English, and measures of achievement in English.

A similar factor was reported by Clément, Major, Gardner and Smythe (1977) for Ontario francophone school children learning English and by Clément *et al.* (1980) for Montreal francophone students. In this latter investigation, a number of measures were included in order to determine the relative generality of the anxiety concept. Again, a self-confidence with English factor emerged. Measures of anxiety included on this dimension were English classroom anxiety, English use anxiety, English test anxiety, and generalized interpersonal anxiety. A measure of French classroom anxiety did not contribute to this factor.

Considering all of these studies, the conclusion seems warranted that a construct of anxiety which is not general but instead is specific to the language acquisition context is related to second language achievement. There does not appear to be much justification to conclude that in general anxious individuals are less successful than non-anxious ones in acquiring a second language, but rather that individuals who become anxious in the second language learning context will be less successful than those who do not. The interpretation proffered by Clément, Gardner and Smythe (1977a; 1980) that self-confidence (with a concomitant absence of situationally relevant anxiety) develops as a result of positive experiences in the context of the second language and serves to motivate individuals to learn the language seems at the present time to be the most meaningful explanation for the role played by situationally relevant anxiety measures in predicting achievement. Such an interpretation could also explain why the findings are so much clearer for the francophone samples than the anglophone ones. In the francophone contexts, there are many opportuni-

ties to use and experience English and consequently many opportunities to have positive or negative experiences.

Empathy Taylor, Catford, Guiora and Lane (1971) define empathy as 'an individual's sensitivity to cues in interpersonal situations' (p. 146). They hypothesize (p. 147) that 'the more sensitive an individual is to the feelings and behaviors of another person the more likely he is to perceive and recognize the subtleties and unique aspects of the second language and incorporate them in speaking'. Although this hypothesis is perfectly reasonable, the research literature supporting it is, at best, questionable. As Schumann (1975, 220) states, 'The experiments that have been conducted to examine this relationship must be seriously questioned but the ideas which have been generated by them are, nevertheless, intuitively appealing. . . .'

It would seem that the major problem with this research is the measure of empathy, the Micro-Momentary Expression test (MME). The test and its scoring have differed slightly from one study to the next, but the following description taken from Guiora *et al.* (1972, 118-19) is reasonably representative:

This is a test of ability to attend and be receptive to interpersonal clues of affective states. It consists of three short film segments showing a young woman from the shoulders up, engaged in conversation. The segments are projected first at normal speed (24 f.p.s.), then at extremely low speed (4 f.p.s.). Subjects viewing the film are each equipped with a push-button type switch, connected via cable to a central recording unit . . . Subjects are instructed to press the button-switch each time a change in facial expression of the projected image is perceived (no more than this is stated, to allow individually operationalized measures of what constitutes a 'change in facial expression').

Many scores can be obtained from such a test. Guiora *et al.* (1972) concentrated on simple counts from the normal and slow speeds. Taylor *et al.* (1971) developed a procedure for determining accurate responses and inaccurate ones and consequently generated scores such as the total number of responses (at 4, 12 and 24 frames per second), the number of accurate responses, and the number of accurate minus inaccurate responses.

There does not appear to be much evidence concerning the validity of the MME as a test of empathy. Taylor *et al.* (1971) found no significant relationships between any score derived from the MME and those from a TAT measure of empathy which assesses a subject's sensitivity to the feelings of the characters in the stories. They conclude (p. 153), 'The fact that the TAT-Sensitivity to Feelings score, the only empathy measure comparable for validation, did not significantly relate to the MME measure suggests that the MME is not an adequate measure of sensitivity to affective cues'. Guiora *et al.* (1972) included three measures of empathy in their test battery, a thematic apperception test, a photographic perception test, concerned with sensitivity to people's personality and feelings, and a literature empathy test, conceived as a test of empathic accuracy. They do not, unfortunately, present any of the correlations of these measures with the MME.

Ignoring any problems with the validity of the MME, there is still little in the way of evidence suggesting that it is related to the acquisition of a second language. The strongest evidence is reported by Guiora *et al.* (1967). They obtained a rank-order correlation of .60 between scores on the MME test and

ratings of the accuracy of French pronunciation of 14 French teachers. Opposite results were obtained by Taylor *et al.* (1971), however, who administered the MME to 28 university students, who later attended four one-hour sessions to learn basic dialogues and sentence patterns in Japanese from a native speaker. On the fifth day, they were tested on their ability to mimic the examiner and to produce spontaneous Japanese speech. These speech samples were subsequently rated by two judges. Of 56 correlations computed between the MME scores and speech scores 10 were significant, but nine of these correlations were negative, contrary to predictions and the findings obtained in the first study described above.

These contradictory results were interpreted as suggesting that the MME scores were due to anxiety, suggesting that anxiety interferes with the acquisition of pronunciation skills. Unfortunately this interpretation is not supported by a study by Garwood *et al.* (1970), who concluded that MME total response scores were not related to either the Taylor Manifest Anxiety Scale or the Mandler-Sarason Test Anxiety questionnaire. Similar confusing results were obtained by Guiora *et al.* (1972), who studied relationships among a number of measures and authenticity of pronunciation of students in various language classes: Japanese, Mandarin-Chinese, Thai, Spanish and Russian. They report that the MME was among the five highest predictors of authenticity of pronunciation for all five languages. The correlations, however, were positive for Spanish, Japanese and Russian, but negative for Thai and Chinese. Whether such fluctuations are meaningful, or due merely to sampling problems remains an unanswered question.

Research using alternative indices of empathy has also yielded ambiguous results. Naiman *et al.* (1978) obtained negative results using Hogan's Empathy Scale. They found no relationship between this measure of empathy and scores on the International French Achievement Test ($r = .01$) or performance on an imitation test focusing on French pronunciation ($r = .03$). Only slightly more encouraging results were obtained by Gardner and Lambert (1972). In their studies, they developed a measure, the sensitivity for others scale, on the assumption that 'the more socially sensitive or empathic person might be more integratively oriented or more gifted for learning the oral-aural features of a foreign language' (p. 22). This scale was included in three of the analyses conducted, and although it failed to relate significantly to measures of French achievement, it was consistently related to measure of motivation to learn French. Such results are encouraging and would appear to warrant further investigation. As indicated earlier, the theoretical rationale underlying the potential role of empathy in second language acquisition is intuitively appealing. Furthermore, the possible link between a measure of empathy and motivation to learn a second language is consistent with the notion of integrativeness (see Chapters 1 and 4).

Summary and conclusions

In this chapter, I have reviewed research relating language aptitude and personality variables to measures of second language achievement in order to direct attention to the nature of the relationships one might expect between different types of individual difference variables and proficiency in a second language. This review has demonstrated strong empirical support for hypothe-

sized relationships between some variables and achievement in a second language, but not for others.

The research literature supports the generalization that there is an 'aptitude for languages' and that it includes abilities such as phonetic coding, grammatical sensitivity, memory, an inductive language learning ability, verbal intelligence, and an auditory ability. Some of these abilities may overlap, however, since they represent labels derived from two different research programmes. It would be instructive now to direct attention as to how these abilities facilitate the acquisition of a particular skill or knowledge. What ability or abilities come into play, for example, when the student is confronted with learning a new word? Are different abilities involved if this item is presented auditorily as opposed to visually, or both? By attempting to break down the process, we should be able to understand more completely the actual functions involved.

Such a 'job analysis' might even uncover a shortcoming in the identification of the underlying abilities. Much of the research which has led to these abilities was initiated in the 1960s and before, and many changes in second language training have occurred since then. Since pedagogical techniques might influence the type of abilities implicated in learning, it is possible that new abilities may be important now which either were relatively unimportant when the research was begun or that weren't even considered. Furthermore, there have been many innovations in the verbal learning area, and techniques and concepts which have been proposed may have many implications for the definition of important abilities in modern-day second language learning. A job analysis and further research focusing on any abilities thus identified would appear to be valuable next steps.

The research literature concerned with personality correlates of second language achievement offers less reason for optimism, but here again further research appears warranted. A job analysis, as proposed above, would seem beneficial and might well begin with a survey of second language teachers concerning their perceptions of the personality characteristics of successful language students. If common factors were uncovered, a follow-up study might involve asking them to provide process-related interpretations for them.

An alternative strategy might be to continue multivariate studies of personality correlates of second language achievement, since studies focusing on one or two specific attributes are often inconclusive. This review has suggested that there is generally a positive relation between field independence and proficiency in a second language, but an unequivocal interpretation of this relationship does not seem possible. The literature linking anxiety to second language acquisition also suggests a relationship, and here the interpretation is much more straightforward. There does appear, however, to be a requirement to focus attention on situationally relevant anxiety as opposed to more general components. The literature concerning sociability and empathy and their role in second language acquisition is interesting, but the findings are too inconsistent. This seems to be a case where the ideas are good, but, either because of the complexity of the phenomenon or the measurement properties of the variables investigated, unambiguous relationships have not been demonstrated.

One point that stands out is that a theoretical rationale linking personality variables with second language acquisition is required. In my opinion, this link

lies in the attitudinal/motivational domain which is the major subject of the rest of this book. I believe that once the research has been conducted, the underlying causal connections between personality variables and second language achievement will involve attitudinal/motivational variables as mediating factors. This has already been suggested by Rivers (1964), who proposed that personality factors would probably act on the individual's motivation, and research relevant to such a link is discussed later in Chapter 8. In the following chapters, however, attention is focused directly on the role played by attitudes and motivation.

3

Individual differences in second language achievement: focus on attitudes and motivation

Overview

The intent of this chapter is to direct attention to the notion of attitude as it relates to second language acquisition. This seems necessary because much has been said about the relation of attitudes to second language acquisition without paying too much attention to the focus of these attitudes or the possible reasons for any relationships. Thus, to state that achievement in a second language is related to, or not related to, attitudes, is relatively meaningless; a major question is attitudes toward what? Furthermore, if a relationship is established between some particular attitude and achievement in a second language, this leads to another pressing question, namely, why?

These questions are addressed in this chapter by considering two different types of attitudes, attitudes toward learning the language, and attitudes toward the other-language community. Research relating each of these two attitudes to second language achievement is discussed in some detail in order to clarify the nature of the exact relations obtained. This analysis leads to the conclusion that, whereas the first set of attitudes is fairly consistently related to achievement, the second shows a more variable set of relationships.

In an attempt to understand this pattern of results, we then consider data prepared specially for this chapter that examines the average correlations of nine different indices of second language 'achievement' with five different attitude measures along with three measures of language aptitude to provide a basis for comparison. This analysis indicates that some attitudes are better correlates of some aspects of achievement than others, raising the further question of why. This leads to a section which considers the concept of motivation. Material presented in this section provides a possible explanation for the relationships obtained and directs attention to other aspects of second language acquisition, namely persistence in language study and actual classroom behaviour. What results is a conceptualization of second language acquisition which focuses attention not on specific correlates of achievement but rather on a totality of attitudes and motivation and their relation to the process of language learning.

Research concerned with the relation of attitudes to achievement in a second language has been of two types. Some studies focus on only a few attitude measures, emphasizing primarily the correlations of these measures with some aspect of achievement. Other studies consider a series of such measures and emphasize multivariate procedures. This chapter is concerned only with the first type of study.

A point emphasized throughout this book is that, when reading the literature, attention should be paid to the nature of the attitude concepts investigated. That is, attitudes can refer to such educationally relevant factors as attitude toward the teacher or the language itself or to such socially relevant factors as the group that speaks the language. Alternatively, attitudes can refer to more general attitudinal dispositions such as ethnocentrism, authoritarianism, or anomie (dissatisfaction with one's role in society). In the research literature, all of these various interpretations of the attitude concept have been employed in different studies of the 'role of attitudes in second language learning'. Obviously, therefore, the conclusion that attitudes are involved in second language acquisition (which generally appears supported by the findings) needs further elaboration and clarification.

Classification of attitudes

To a considerable extent, the various ways of classifying attitudes can be seen reflected in the relationship between the attitude measures and indices of achievement in a second language. Attitudes can be classified along a dimension of specificity/generality. Thus 'attitudes toward learning French' is relatively specific in that the attitude object (i.e., learning French) is fairly clearly circumscribed and definite. On the other hand, a measure like 'interest in foreign languages' is considerably more general, for two reasons. First, the attitude object is 'foreign languages' which is a more general construct than only one language (i.e., French). Second, there is no particular activity associated with the languages. In the case of attitudes toward learning French, a specific activity is described. Interest in foreign languages, on the other hand, could involve many activities such as learning them, speaking them and hearing them. In this sense, a measure like interest in foreign languages can be characterized as much more general than one like attitudes toward learning French.

At the present time, arranging various scales on a specificity/generality dimension cannot be done unequivocally. Furthermore, such distinctions cannot be made on the basis of scale names. They must be based on the nature of the items comprising the scale. When a scale is analysed in terms of item characteristics, however, it is obvious that an a priori classification would be difficult. For example, attitudes toward learning French was referred to above as a relatively specific attitude variable. It is, however, relatively complex, as demonstrated by Randhawa and Korpan (1973). They developed a 26-item scale to measure attitudes toward learning French, but, when they factor-analysed the relationships among the items, they obtained four correlated factors, one of which was relatively specific to only one item. The other factors appeared to reflect different common themes. One involved a *utilitarian* predisposition, emphasizing the usefulness of learning French, another was described as an *aestheticism* dimension because the items defining it tended to focus on an appreciation of the language, and the third was identified as *tolerance* toward learning French since the items appeared to reflect an accepting attitude rather than any direct positive orientation toward learning French. In short, even this relatively specific attitudinal concept was shown to be multi-dimensional. Even so, the nature of the attitude can be seen to be less general than many other attitudes such as interest in foreign languages.

Attitudes can also be classified in terms of their relevance to second language achievement. Some attitudes are obviously more relevant to the task of learning a second language than others, and such differences would be expected to be reflected in the correlations of the various attitude measures with indices of achievement in the language. In fact, relevance might best be defined simply in terms of the correlation between the attitude and the achievement variables. Although such *post hoc* assessments of relevance would be valuable, it is possible, nonetheless, to consider those factors which would make some attitudes more relevant than others.

Attitudes toward learning French and attitudes toward the French course are obviously more relevant to learning French in the classroom than are attitudes toward French Canadians or interest in foreign languages. It does not seem particularly surprising that a measure of attitudes toward learning French would correlate with many indices of achievement in French. Such a correlation would be expected because, in comparison with those individuals with negative attitudes, those with positive ones would be more attentive in the learning situation, would take assessments more seriously, would find it more rewarding to simply experience the language, and thus achieve more. It would be more startling if a measure of attitudes toward learning French didn't correlate with French achievement. This is not intended to belittle the importance of a relationship between attitudes toward learning French and achievement in French because any relationship between attitudes and behaviour has important implications. The point is that there exist many factors which would promote such an association.

There are considerably fewer reasons why one would anticipate a relationship between attitudes toward French Canadians and French achievement, however. To be sure, one might expect that those with favourable attitudes would be more attentive, serious, rewarded, and the like, than those with negative attitudes, but even so such attitudes might not be related to achievement. An individual could hold positive attitudes but prefer not to study the language in school because of a feeling that such a context is inappropriate, or because of a dislike for the teacher, for example. As a result, it would seem less probable that attitudes toward French Canadians would relate to indices of achievement, and that if such relationships exist they are more interesting in some respects because they are less expected.

A review of the literature indicates that, in fact, attitude measures do differ in their degree of relationship with achievement in the second language, suggesting that some indices are more relevant than others. In general, for example, studies involving attitudes toward learning the language generally obtain higher relationships with achievement than studies of attitudes toward the second language community, and the patterns appear more consistent. There are important departures from this, however, which would suggest that relevance, defined *a priori*, is not the only factor influencing such relationships.

Another way of classifying attitude variables is as either educational or social attitudes. Although this category is similar to relevance in many respects, it has other implications. Instances of educational attitudes would be attitudes toward the teacher, the course, learning the language, etc. In each case, the attitude revolves around the educational aspects of second language acquisition. Social attitudes, on the other hand, involve attitudes which focus on the cultural

implications of second language acquisition. Attitudes toward French Canadians, ethnocentrism, and anomie, for example, gain their significance because they refer to the individual's attitudinal disposition toward social groups, in-group or out-group, which might influence second language acquisition. As will be seen, both educational and social attitudes appear to play a role in the second language learning process.

Two attitude variables which have received considerable investigation by a number of researchers are attitudes toward learning the second language and attitudes toward the second language community. The first is clearly an educationally relevant attitude, while the second is primarily a social one.

Attitudes toward learning a second language

As indicated above, there are many reasons to expect that a measure of attitudes toward learning a second language would relate to achievement in the language, and the research literature generally supports this belief despite the fact that the nature and type of attitude scales vary considerably from study to study. Furthermore, the literature suggests that it is highly likely that, although such attitudes are related to achievement in language courses, attitudes toward other school subjects are not necessarily related to achievement in these courses. That is, the nature of language acquisition may be such that attitudes are implicated in achievement more than is true for other subject areas.

This generalization is indicated by a study conducted by Jordan (1941) who developed a Thurstone type of scale to measure attitudes toward each of five school subjects, French, mathematics, history, English and geography, among 231 boys ranging in age from 11 to 15 in England. The 50 items dealing with French varied from one such as, 'When I leave school I shall give up the study of French entirely because I am not interested in it', (scale value .7) to, 'I think that everyone should be taught French', (scale value 10.7). Thus, although the scale is referred to as a measure of attitudes toward French as a school subject, its items are comparable to those contained in scales measuring attitudes toward learning French. Jordan (1941) presents correlations between achievement in the five subject areas and the respective attitude measure for each of seven classes as well as the average correlations for each attitude measure for all classes. The mean correlation of .26 for French was the second highest of the five subjects. The mean correlations ranged from .21 for both history and geography to .33 for mathematics. Clearly the correlations are not high, and the range is small. Taken alone these results are merely suggestive, but other findings strengthen the conclusion that attitudes toward learning languages are more related to achievement than are attitudes toward many other school subjects.

Duckworth and Entwistle (1974), also in England, developed a repertory grid technique for studying attitudes toward many school subjects. The grid consists of four scales: interest, difficulty, freedom to express ideas, and social benefit; but the first is most comparable to scales measuring attitudes toward learning the subject. They studied the attitudes of 312 second-year (12-year-olds) and 292 fifth-year grammar school students toward nine subjects: chemistry, history, geography, biology, English, physics, mathematics, Latin and French. They report (p. 78) 'there were few significant correlations among second-year pupils,

except in French, but a much clearer set of relationships was found among fifth-formers. . . . There was, however, a difference in the levels of correlation between groups of subjects. For English, history, geography, and biology, the values were rather low on average (.15) while for mathematics, physics, chemistry, and French the average value was .38'.

Neidt and Hedlund (1967) obtained similar findings in a university context. They assessed attitudes toward learning three different subjects: English (N = 376 students), German (122 students), and anatomy (75 students). Attitudes were assessed five times throughout the course. None of the five correlations between attitudes toward learning anatomy and final grades in anatomy were significant, while all five correlations were significant for German (values ranged from .30 to .33). For English, only the correlations based on the last two assessments of attitude were significant (both correlations were .13). Partial correlations are also reported where the effects of ability were removed. The partial correlations for anatomy were still negligible, while the last three for English and the last four for German were significant. Neidt and Hedlund (1967) conclude that there is an increasing congruence between attitude and achievement as the course progresses, even with ability controlled, but it seems more significant in the present context that it is the two 'language' courses in which attitudes and achievement are significantly related, and that the relationships are appreciably greater for the second language, German.

As indicated earlier, the concept of 'attitudes toward learning a second language' is itself complex, so perhaps it is reasonable to expect that some aspects of the attitude are more highly related to achievement than others. This was precisely the finding of Randhawa and Korpan (1973). They report correlations between ratings of French achievement made by teachers of 100 grade seven and eight students and their four factors of attitudes toward learning French of .57 (tolerance), .49 (utilitarianism), .43 (aestheticism) and .26 (specific factor). These correlations tend to be higher than others reported, but it should be emphasized that the index of achievement in the present instance is teacher ratings, and it is possible that teacher ratings could be influenced by students' attitudes as well as their actual achievement.

Attitudes toward learning the second language also have been shown to relate to other factors. For example, where they have been investigated, sex differences have been obtained on attitudes toward learning the second language. Girls tend to demonstrate significantly more positive attitudes than do boys (Burstall 1975; Gagnon 1974; Gardner and Smythe 1975a; Jones 1950a; 1950b). It is generally recognized that girls are more successful in learning languages than boys, and at least one study (Randhawa and Korpan 1973) has demonstrated that sex differences in achievement are eliminated once adjustments are made to take into account such attitudinal differences.

Attitudes are clearly influenced by many factors in the student's upbringing. Gagnon (1974) demonstrated, for example, that attitudes toward learning English as a second language varied appreciably from one geographical area to another in Canada. Students in the province of New Brunswick demonstrated significantly more positive attitudes than those in Ontario, who again were more positive than those in Quebec. There could be many reasons for these differences. In a different context, Jones (1950a) found that for children learning Welsh as a second language, those with Welsh speaking parents expressed more

positive attitudes toward learning Welsh than those of non-Welsh speaking parents, while Jones (1950b) found that such a difference was apparently not due simply to the effect of a bilingual home. In this latter study, Jones compared attitudes of three groups of pupils, those with Welsh speaking parents, those whose parents knew a little Welsh, and those with non-Welsh speaking parents. The difference in attitudes between the first two groups was negligible; children of non-Welsh speaking parents had significantly less favourable attitudes toward learning Welsh than each of the other groups. These results suggest that it is not simply that children of Welsh parents have more positive attitudes toward Welsh; children whose parents indicated an interest in Welsh also evidenced positive attitudes. Research by Owen (1960) cited by Jones (1966) indicates, furthermore, that length of residence in Wales and linguistic background were important factors in influencing parents' attitudes toward Welsh as a second language. Thus children's attitudes quite probably are affected by a number of cultural characteristics.

Studies have also indicated that attitudes toward learning a second language become less positive with age (Gardner and Smythe 1975a; Jones 1950a, 1950b; Jordan 1941), though the reasons for such a decrease are not clear. It may simply be that attitudes become less positive as students mature, or that education (which is correlated with age) tends to cause students to take a more objective look at issues, resulting in what looks like a decrease in attitudes. Still another alternative is that the experience of learning a language tends to make students more critical of the entire situation. Hernick and Kennedy (1968) suggest that forcing students to learn languages rapidly creates feelings of failure, and it is obvious that such dissatisfaction could generalize to attitudes toward learning the language among some students. The net effect would be a decrease in the mean attitude of a class of students (see Chapter 5 for further discussion on this factor).

Regardless of the reasons for the attitude change, there is evidence to suggest that such decreases are also associated with a higher relation to achievement. Both Jones (1950b) and Jordan (1941) found that the correlation between attitudes and indices of achievement tended to increase as students grew older (and their attitudes became less positive). As suggested above, it does not seem reasonable to attribute this simply to an increase in age. The older students tend to have more knowledge of the language, hence the assessment of their achievement probably has more to do with their knowledge of the language than that for younger students. Then, too, their increased experience with the language would permit greater variation in success and failure which could be generalized to attitudes toward learning the second language. Burstall (1975) does not report differences in the degree of association between attitudes and achievement as a function of age, but she does marshal evidence to suggest that attitudes might be somewhat dependent on prior achievement in the language. She states (p. 399), 'the calculation of partial correlations indicated strongly that early achievement in French affected later attitudes toward learning French and later achievement in French to a significantly greater extent than early attitudes towards learning French affected the subsequent development of either attitudes or achievement'.

Like many other studies (Gardner and Smythe 1975a; Jones 1950b; Jordan 1941; Randhawa and Korpan 1973), Burstall (1975) also found an association

between attitudes toward learning the second language and achievement in that language. Although this association is quite common, not all studies support it. Gagnon (1974), for example, found that only four of 22 relationships were significant, suggesting that other factors can influence the degree of association. When relations are obtained, furthermore, it is not reasonable to attribute them to factors such as intelligence or aptitude rather than attitudes. Attitudes toward learning a second language have been shown to be independent of intelligence (Clément, Gardner and Smythe 1977a; Jones 1950b) and language aptitude (Gardner and Smythe 1975a)(see also Chapter 4). These findings suggest that the attitude measures relate to achievement because of important affective components and not simply because the attitudes covary with ability.

Attitudes toward the second language community

Research concerned with the relationship of achievement in the second language to attitudes toward the second language community obtains variable results. Anisfeld and Lambert (1961), for example, studied six different classes of students in grades eight and nine studying Hebrew as a second language. Correlations of a measure of anti-Semitism with various measures of achievement varied from .08 to $-.68$ with a median of $-.49$. Only a measure of language aptitude produced a higher median correlation with achievement ($r = .60$), and the range in correlations was much less ($.42 - .82$) indicating that it was a much more consistent correlate. Lambert *et al.* (1963) found that francophilia was positively related to achievement for adults registered in elementary sections of a six-week intensive summer French programme, but negatively related for those in the advance sections. Gardner (1966) also reports that in some geographical areas in the United States attitudes toward the language speaking community were not related to achievement.

Such inconsistent relationships are, however, offset by other more meaningful findings. Mueller and Miller (1970) found that attitudes toward French people correlated significantly with student grades (as estimated by the students), though the criterion could be questioned in this study. The finding is replicated, however, in another study conducted by Mueller (1971), who found that attitudes toward French speaking people were correlated with grades in French. In like manner, Jacobsen and Imhoof (1974) also demonstrated the importance of attitudes toward the language community. In an investigation of 600 Protestant missionaries living in Japan who had had at least two years of intensive language study, they found that japanophilia was among the three best predictors of speaking proficiency for both men and women.

Spolsky (1969) argues strongly that 'One of the most important attitudinal factors is the attitude of the learner to the language and to its speakers' (p. 274). In an investigation of 315 foreign students from 80 different countries living in the USA, he found significant associations between the perception of similarity between self and English speakers and grades in English. No appreciable relationship was obtained between such identification with one's own group and proficiency in English, suggesting that it is affective reactions toward the other group rather than toward one's own community which is the pertinent variable.

A somewhat different conclusion was drawn by Oller, Hudson and Liu (1977), who used measures similar to Spolsky's. Instead of employing measures

of identification, however, they computed multiple correlations of factor scores derived from separate analyses of reactions to the self, Chinese and Americans with grades in English among 44 Chinese students in the USA. The multiple correlations were comparable for each concept (.52, .52, and .50) suggesting that achievement in English was related similarly to reactions to each concept. Of course it still may be that had measures of identification been computed, results comparable to those obtained by Spolsky (1969) might have been obtained. This, in fact, is suggested by a closer look at the data. Of the simple correlations reported between factor scores and indices of English proficiency by Oller, Hudson and Liu (1977), the highest correlation ($r = .43$) involved evaluative reactions to Americans. This correlation was higher than any correlation with reactions to the Chinese, or reactions to the self. Thus, even in that study, achievement in the second language was more highly related to evaluative reactions to the target language group than either of the other two concepts. Other studies (discussed in more detail in Chapter 4) do not replicate these relationships, but each of them (including this one) have methodological problems which are discussed in that Chapter.

Few studies have been conducted which investigate the effects of other variables such as age and sex on evaluative reactions toward the other language group in the context of second language acquisition. One study does show, however, how language texts and even language teachers might contribute to students' impressions of other language communities. In a most interesting and penetrating analysis of various teaching materials, Koch (1975) demonstrates how information presented can lead to the development and perpetuation of ethnic stereotypes. Gardner and Smythe (1975a) present some data concerning sex differences in attitudes toward French Canadians, and although females tend to score significantly higher than males, particularly in grades eight to 11, the differences are not great. Larger differences were obtained with attitudes toward learning French.

Even studies on the effects of exposure to the second language on attitudes toward the other language community have produced equivocal results. Riestra and Johnson (1964) compared 63 grade five students who had been studying Spanish as a second language for two years with 63 students who had not studied Spanish, but who were comparable in terms of sex, age, and intelligence. They found that those students who had studied Spanish had significantly more favourable attitudes toward Spanish speaking people than those who had not studied Spanish. The groups did not differ in attitudes toward non-Spanish speaking people. Although such data could be taken as evidence that exposure to a second language and cultural information about the other group promotes favourable attitudes toward that group, it is not clear that the differences can be attributable to the language course experience (see Chapter 5). Gardner and Smythe (1975a) also found that attitudes toward the other community (French Canadians) became more favourable the more years students spent studying French, and this finding tends to confirm that of Riestra and Johnson (1964). Gardner and Smythe (1975a) also demonstrated, however, that students who drop out of second language study have a priori less favourable attitudes toward the other language community than those who continue language study, and it seems possible that such differences could also characterize those who elect initially to either study or not study a second language.

As was the case with attitudes toward learning French, the data also suggest that attitudes toward the other ethnic community tend to be independent of intelligence and language aptitude. This is demonstrated in the studies by Gardner and Lambert (1959; 1972) and Gardner and Smythe (1975a) which show that attitudes toward French Canadians tend to contribute to factors which are independent of those defined by intelligence and/or language aptitude. These findings are discussed in more detail in Chapter 4.

Relations of various attitudes to second language achievement

Until now we have considered only two attitude measures: one, the educationally relevant measure of attitudes toward learning French, and the other, the socially relevant measure of attitudes toward French Canadians. This section compares five attitude measures and three aptitude measures in terms of their correlations with a number of indices of achievement in French. The attitude measures are attitudes toward learning French, interest in foreign languages, attitudes toward French Canadians, evaluative reactions toward the French teacher, and evaluation of the French course; the aptitude measures are the three subtests from the short form of the Modern Language Aptitude Test (MLAT) (Carroll and Sapon 1959), words in sentences, paired associates and spelling clues.

Table 3.1 presents the results of comparing the mean correlations of these eight predictor variables with nine different criteria. These correlations were calculated from the results obtained in 33 studies involving five different age/grade levels in seven regions across Canada. The sample sizes varied from 62 to 238 with a median of 162. The analyses were one-way repeated measure design analyses of variance in which the eight predictor variables formed the levels of the 'treatment' factor, and the 33 samples served as replications. The dependent measures were the Pearson product moment correlation coefficients between the predictor variable and the criterion in question. Each analysis, thus, is addressed to the question of whether some measures are consistently better predictors or correlates of the criterion than are other measures.

Table 3.1 demonstrates that in all cases the mean correlation coefficients vary more than can reasonably be attributed to chance ($p < .01$). Considering all nine criteria, two predictors stand out as consistently being among the top three correlates. The attitudes toward learning French scale is always either the highest or second highest correlate, while the interest in foreign languages scale is always the second or third highest correlate. None of the other six predictors evidence such consistency.

The patterns of results for the four self-ratings of French achievement are all very similar. The solid lines shown in Table 3.1 summarize the results of applying Tukey's Honestly Significant Difference test to the ordered means. Variables joined by a common line do not differ significantly ($p < .01$) from one another, in terms of their mean correlations, while variables not so joined reflect significant departures. For the criterion self-rating: writing, therefore, the results demonstrate that the mean correlations for attitudes toward learning French and evaluation of the French course do not differ significantly from each other and that, although interest in foreign language does differ significantly from the former, it doesn't from the latter. Similar comparisons could be made

Table 3.1 Comparisons of mean correlations of eight predictor variables for nine criteria

Criterion	F ¹	Predictors and correlations in rank order									
Self-rating: writing	24.18*	ALF	Course	IFL	AFC	Teacher	WinS	Pd.Ass.	Sp.Cl.		
		.320*	.256*	.224*	.158*	.137*	.119*	.094*	.064*		
Self-rating: understanding	37.71*	ALF	Course	IFL	AFC	Teacher	WinS	Pd.Ass.	Sp.Cl.		
		.318*	.261*	.221*	.150*	.136*	.065*	.046	.013		
Self-rating: reading	20.50*	ALF	IFL	Course	AFC	Teacher	WinS	Pd.Ass.	Sp.Cl.		
		.288*	.232*	.229*	.141*	.121*	.085	.072	.065		
Self-rating: speaking	32.29*	ALF	Course	IFL	AFC	Teacher	WinS	Sp.Cl.	Pd.Ass.		
		.314*	.248*	.221*	.147*	.123*	.062*	.052	.047		
Vocabulary	6.50*	WinS	ALF	IFL	Pd.Ass.	Sp.Cl.	Course	AFC	Teacher		
		.249*	.244*	.230*	.214*	.197*	.181*	.155*	.102		
Grammar	6.03*	WinS	ALF	IFL	Pd.Ass.	Sp.Cl.	Course	AFC	Teacher		
		.206*	.202*	.182*	.158*	.146*	.138*	.102*	.074		
Comprehension	5.61*	IFL	ALF	WinS	Sp.Cl.	Pd.Ass.	AFC	Course	Teacher		
		.185*	.180*	.176*	.166*	.160*	.120*	.115*	.065		
Grades	14.64*	ALF	WinS	IFL	Pd.Ass.	Course	AFC	Sp.Cl.	Teacher		
		.355*	.354*	.295*	.294*	.290*	.194*	.189*	.182*		
Behavioural intention	96.26*	ALF	Course	IFL	AFC	Teacher	WinS	Pd.Ass.	Sp.Cl.		
		.509*	.414*	.367*	.288*	.209*	.141*	.115*	.049		

Key:

ALF	Attitudes toward learning French	AFC	Attitudes toward French Canadians	Pd.Ass.	Paired associates
Course	Evaluation of French course	Teacher	Evaluation of French teacher	Sp.Cl.	Spelling clues
IFL	Interest in foreign languages	WinS	Words in sentences		

*p < .01

For all but the last two criteria, the F-ratios are evaluated at 7 and 224 degrees of freedom. For Grades, the appropriate degrees of freedom are 7 and 203 and for Behavioural intention, the degrees of freedom are 7 and 217.

for the remaining means, but it will be obvious that there is a pattern of overlapping differences.

By considering the pattern of the differences and the relative differences between adjacent means, it is possible to characterize the results in term of three groupings for all four self-rating criteria. That is, the three attitude measures, attitudes toward learning French, evaluation of the French course and interest in foreign languages are the highest correlates and are consistently better predictors of self-ratings than the three aptitude indices, words in sentences, spelling clues and paired associates. Attitudes toward French Canadians and evaluation of the French teacher are intermediate between these two clusters. It is particularly noteworthy that there is not a greater relationship between aptitude and self perceptions. One might expect that students with high levels of aptitude would perceive themselves as more proficient in a second language than those with low levels, but these results suggest that differences in self-perceived proficiency are more related to attitudes.

The variability among the means is considerably less pronounced for the three criteria based on paper and pencil objective tests, vocabulary, grammar and comprehension, though it is still significant. In all three cases, the best three correlates are words in sentences, attitudes toward learning French and interest in foreign languages, though they don't differ significantly from many of the other tests. The three lowest correlates are evaluation of the French course and the French teacher and attitudes toward French Canadians, although again they are not all significantly lower than many of the other tests. The pattern indicates, nonetheless, that aptitude variables and attitudes involving language tend to be consistently better correlates of objective assessments of second language proficiency than attitudes involving the classroom environment or the other language community.

The pattern is much more clear-cut for the criterion 'grades in French'. Five variables correlate significantly better with grades than do the three other variables, and within each of these two clusters none of the differences are significant. The five best correlates are attitudes toward learning French, words in sentences, interest in foreign languages, paired associates and evaluation of the French course. The three poorest correlates are attitudes toward French Canadians, spelling clues and evaluation of the French teacher. The close association of the words in sentences test with classroom grades has been documented in at least one other study (Gardner and Lambert 1965), but it is not clear why the paired associates test should be as good, while the spelling clues test is an inferior correlate. Similarly, it seems understandable that attitudes toward learning French, interest in foreign languages and evaluation of the French course should correlate relatively highly with French grades. It is not easy, however, to explain the relatively poor predictive capacity of the two measures, attitudes toward French Canadians and evaluation of the French teacher.

The criterion 'behavioural intention to continue French study' differs from the others in that it reflects interest in language study more than proficiency in the language. It is an important criterion, however, in that, in those settings where there are few opportunities to acquire the language in the community, the decision to discontinue language study is tantamount to the decision to ignore the language. As a result, this index can be viewed as an important and meaningful criterion. The results indicate that the three best correlates are the

measures attitudes toward learning French, evaluation of the French course and interest in foreign languages. The three poorest are the three language aptitude subtests.

It is necessary to comment on the magnitude of the correlations in the various analyses. Although many of the mean correlations are low, it must be emphasized that they are based on 33 samples with a median sample size of 162 observations. In most instances, the individual correlations making up these means were positive and significant. For example, the mean correlation of evaluation of the French teacher and French grades is only .182, however, this is a mean of 30 correlation coefficients (three samples did not rate the French teacher) and of these, 28 were positive. A one-sample sign test applied to these correlations provides a test of the null hypothesis that the population correlation is 0 since, if this were true, one would expect approximately an equal number of positive and negative correlations. Application of the sign test leads to rejection of the null hypothesis, and the conclusion that even the lowest mean correlation with grades represents a significant ($p < .01$) association. When this sign test was applied to the correlations involved in calculating the other mean correlations, all but 11 of them were significant. The significant mean correlations are indicated in Table 3.1 (on p. 48).

These data permit two generalizations. First, for all criteria it is clear that the two attitude measures attitudes toward learning French and interest in foreign languages are the most relevant in that they tend to correlate more highly than the other variables. The two least relevant attitude measures are evaluation of the French teacher and attitudes toward French Canadians, with the former being consistently the least relevant. Second, although some might argue that many of these correlations are low, it should be noted that the magnitudes of the correlations for the attitude measures are comparable to those for the aptitude measures. In fact, of the nine analyses, an attitude measure has the highest mean correlation in seven instances. It seems clear, therefore, that attitude measures account for a significant and meaningful proportion of the variance in second language achievement and that some attitude variables are more relevant than others. A question not answered, however, is why attitudes are related to achievement. This question is considered next.

Motivation and second language achievement

The concept of motivation is concerned with the question 'Why does an organism behave as it does?' When we state that an individual is motivated, we infer this on the basis of two classes of observations. First, the individual displays some goal-directed activity, and second, that person expends some effort. Moreover, questioning the person would show a desire or 'want' for the goal in question and favourable attitudes toward the activity of learning the language. In short, motivation involves four aspects, a goal, effortful behaviour, a desire to attain the goal and favourable attitudes toward the activity in question. These four aspects are not unidimensional, however, and they in turn group themselves into two conceptually distinct categories. The goal, although a factor involved in motivation, is not a measurable component of motivation. That is, although the goal is a stimulus which gives rise to motivation, individual differences in motivation itself are reflected in the latter three aspects listed

above, effort expended to achieve the goal, desire to achieve the goal and attitudes toward the activity involved in achieving the goal. In assessing motivation to learn French, these three components are reflected in the measures motivational intensity, desire to learn French and attitudes toward learning French respectively. The goal, as we shall see next, is reflected in the individual's orientation to language study.

In his analysis of second language learning, Dunkel (1948) made a similar distinction between the goal of language study and the nature of the behaviour involved in achieving that goal. He differentiated between the kind of motivation and the intensity of motivation. In terms of the above discussion, the kind of motivation refers to the goal sought by the individual, and the intensity of motivation refers to the degree of effort the individual expends to achieve that goal. Dunkel did not expressly concern himself with the other two aspects, desire and attitudes.

The type of motivation answers the question of why the individual is studying the language. It refers to the goal. Many reasons could be listed: to be able to speak with members of that language community, to get a job, to improve one's education, to be able to travel, to please one's parents, to satisfy a language requirement, to gain social power, etc. It may even be that there are as many reasons for studying a second language as there are individuals. To reflect the kind of motivation for language learning, however, the reasons have to reflect some goal associated with language learning. If a student were asked, 'Why are you studying French?', and the student replied, 'because I have to', this is obviously a reason for being in the classroom, but it does not appear to denote any kind of motivation for language learning. In fact, if anything, such a reason would seem more indicative of a lack of motivation to learn the second language. To qualify as goals of second language learning, the reasons must relate to learning the language. This consideration appears to have been overlooked by some researchers. Oller, Hudson and Liu (1977), for example, include the item 'was required to study English in high school' as a reason for learning English. Obviously, however, this reflects a previous experience, not a goal of language study.

Once the reasons for second language study have been clarified so that they reflect some ultimate goal, it is possible to classify them. Once classified, the various categories would seem best identified as orientations in order to maintain conceptual clarity. This terminology was introduced by Gardner and Lambert (1959) when they focused on two types of orientations, integrative and instrumental, and subsequent studies have tended to focus on these orientations (see, for example, Burstall *et al.* 1974; Clément, Gardner and Smythe 1977a; Gardner and Lambert 1972; Lukmani 1972; Oller, Hudson and Liu 1977; Smythe *et al.* 1972; Tucker *et al.* 1976).

It is likely that there are other meaningful orientations involved in language study. Gardner and Lambert (1972) suggested, for example, that a manipulative or machiavellian orientation might be implicated in second language study, but they did not investigate it. In a somewhat different context, Gardner (1968b) asked teachers of American Indian students to rate the importance of three orientations for their students learning English. These included an assimilative orientation, emphasizing the aim to become like non-Indian Americans, an integrative orientation, stressing the value of learning English to become truly

part of both cultures, and an instrumental orientation which referred to the economic and practical advantages of learning English. These ratings were all significantly intercorrelated and formed one factor in a factor-analytic solution involving many other judgments. When forced to choose among them, however, 87 per cent of the teachers chose integrative reasons, 11 per cent chose assimilative ones, and only seven per cent selected instrumental ones as important for their students.

Oller, Hudson and Liu (1977) have argued that the classification of reasons as integrative or instrumental is ambiguous, since whether a particular reason falls into either category could depend upon the interpretation put on it by the individual selecting it. In fact, different researchers have classified the same reasons differently. For example, Lukmani (1972) classified the reason 'travel abroad' as instrumental, whereas Burstall *et al.* (1974) classified 'travel to France' as integrative. Such ambiguity could be eliminated, however, by an empirical investigation of the relations among various reasons for learning a second language. In attempting to develop measures of these two orientations, Gardner and Smythe (1975a) computed item total correlations for 16 items (eight for each scale) and selected the four items for each scale with the highest commonality. The item 'it will help me if I should ever travel' was originally considered as an instance of an instrumental reason, but it had to be eliminated altogether since it did not demonstrate a sufficiently high degree of association with either the integrative or the instrumental category.

A recent investigation by Clément and Kruidenier (1983) has attempted to group reasons underlying different orientations. They studied the relationships among 37 reasons in eight samples of students formed by considering the factors of ethnicity (French versus English), milieu (unicultural versus multicultural) and second language (French or English versus Spanish). Factor analyses in each of the samples generated eight six-factor solutions, and the correlations of the loadings of the items on these factors were again factor-analysed to uncover common dimensions. Four orientations were found which were common to all eight samples; these were identified as instrumental, friendship, travel and knowledge orientations. Five other orientations appeared in combination with only some of the samples. Such results are encouraging because they suggest that there are some orientations which appear relatively stable. Others, however, seem to be influenced by context, and further research will be required to determine whether these are relatively consistent.

Dunkel's (1948) concept of the intensity of motivation emphasizes the nature of the 'approaching-the-goal' behaviour. That is, given the same goal, two individuals could differ in their effort to achieve this goal. One way of conceiving this intensity was suggested by Gardner and Smythe (1975a), who proposed that an analogue could be seen by considering a rat traversing a runway in order to approach some goal. They suggested that if it was wearing a harness which was attached to a lever system designed to assess how much pull it exerts, differences in the amount of pull or effort exerted would indicate differences in intensity.

Although he used a somewhat different technique, Warden (1931) did, in fact, demonstrate that rats evidence greater effort to achieve some goals than others. That is, some goals have more 'pulling power' than others. This differential pulling power also seems to characterize orientations in second language

study. Studies have demonstrated that subjects who select integrative reasons over instrumental ones as indicative of themselves evidence higher levels of motivational intensity (see, for example, Gardner and Lambert 1959; Gordon 1980).

In the area of second language acquisition, motivational intensity has been assessed by determining the amount of effort the individual expends (or, in some instances, would be willing to expend) in order to learn the second language. To date, this assessment has been based on self-report (Gardner and Lambert 1959; 1972; Gardner and Smythe 1975a), but more objective measures could be developed. The self-report measures tend to focus on questions dealing with amount of effort spent on homework, willingness to take on special assignments, activity spent on improving level of knowledge, and intentions about using available opportunities to improve French knowledge. In each instance, items are worded to focus on the amount of effort expended rather than on the desire to learn French. This latter, more 'cognitive-wishing' sort of measure is viewed as an affective index which is conceptually, at least, distinct from the pure effort component.

Focusing only on intensity does not completely describe the concept of motivated behaviour, however. Two individuals may express comparable levels of motivational intensity yet differ considerably in the nature of the affect associated with their behaviour. Although they both might do the same amount of homework, etc., one might report more positive cognitions about learning French and find the total experience more pleasant than the other. That is, one may have a stronger desire to learn French and may have more favourable attitudes toward learning French. These two emotional aspects of motivated behaviour must be included for a complete representation of motivation. It seems highly likely that individual differences in desire to learn French would correlate with differences in attitudes toward learning French and motivational intensity, and they in fact do (see, for example, Gardner and Smythe 1975a; Clément, Gardner and Smythe 1977a; 1980), but it is conceivable that instances could occur where they are not in agreement. For example, motivational intensity might be high among a class of students because of impending examinations or a severe teacher, but there may not be correspondingly high levels of desire to learn French, or attitudes toward learning French. Although examples might be cited, the important point is that, in order to describe the phenomenon of motivation adequately, four components are required, a goal, effort, want and attitudes toward the activity.

Figure 3.1 presents a schematic representation of the motivational construct postulated here as it relates to second language acquisition. The four elements, attitudes toward learning the language, desire, motivational intensity, and goal are illustrated. Although motivational intensity could be influenced by both the want and the attitude components, it is possible that other situational variables (e.g., a severe teacher) or personality ones (i.e., need achievement, compulsiveness) could also influence the assessment if not the actual level of this component. As already stated, goal refers to the ultimate objective of language study. That is, the goal is not viewed as the goal of learning French, but rather the reasons for learning French. In Figure 3.1 it is shown to be assessed in terms of completion of the statement 'Learning French is important to me because. . .'. Once reasons are classified in some way, the categories of reasons

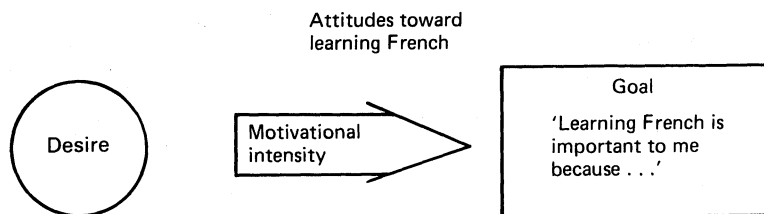


Figure 3.1 Schematic representation of the concept of motivation as it relates to second language acquisition

have been referred to as 'orientations'.

Using this representation, it is possible to differentiate between orientation and motivation. Orientation refers to a class of reasons for learning a second language. Motivation refers to a complex of three characteristics which may or may not be related to any particular orientation. These characteristics are attitudes toward learning the language, desire to learn the language and motivational intensity. The distinction can be clarified by considering the difference between an integrative orientation and an integrative motive. An integrative orientation refers to that class of reasons that suggest that the individual is learning a second language in order to learn about, interact with, or become closer to, the second language community. Although many reasons could be subsumed under this category, it reflects an interest in forming a closer liaison with the other language community. The concept of the integrative motive includes not only the orientation but also the motivation (i.e. attitudes toward learning the language plus desire plus motivational intensity) and a number of other attitude variables involving the other language community, out-groups in general and the language learning context. Integratively orientated individuals may tend to be more highly motivated than individuals with other orientations, but this association isn't guaranteed *a priori*. It seems very possible that some individuals may reflect an integrative orientation but not be strongly motivated to learn the second language, or vice versa. As a consequence, the distinction between orientation and motivation is one that should be kept clear when reading the research literature.

This distinction has not been made by many researchers, and, in fact, some have equated orientations with both motivation and attitudes. In a series of studies (discussed in greater detail in the next chapter) Oller and his associates have asked students to rate the extent to which various reasons for learning a second language apply to themselves. Often finding few relationships between measures of second language achievement and factor scores derived from these and other responses, they have concluded that direct measures of attitudes and motivation are not related to second language achievement. This, of course, confounds attitudes, motivation and orientation.

Another facet highlighted by this analysis is the inadvisability of equating orientation and motivation. That is, an integrative orientation reflects a goal to learn a second language because of a favourable interest in the other language community. Only if this orientation is linked with effort expended to achieve this goal, a desire to learn the language, and favourable reactions to the

language, the community and the language learning context can you meaningfully speak of an integrative motive. On its own, the orientation reflects simply a goal which may lack motive power. Studies which consider only the orientation are considering only one small component. Although it is true that some studies have shown that integratively orientated individuals are more highly motivated than instrumentally orientated ones (cf. Gardner and Lambert 1959), this isn't always necessary. As demonstrated in the next chapter, it is even possible that instrumentally orientated individuals will demonstrate high levels of motivation.

This was possibly the case in a study conducted by Lukmani (1972). Subjects in this investigation were 60 Marathi speaking female high school students in Bombay. In addition to responding to semantic differential ratings of the concepts, the Marathi speaking community, the English speaking community, myself and my ideal self, they also rated the relevance to themselves of five integrative and five instrumental reasons for learning English and completed a Cloze test of English. The results indicated that subjects perceived instrumental reasons as more characteristic of themselves and that an instrumental orientation correlated higher with English proficiency ($r = .411$) than did an integrative one ($r = .257$). Lukmani had adopted an alpha level of .01 and, since the latter correlation was significant at the .05 level, concluded that 'Cloze test scores correlated significantly with instrumental motivation ($p < .001$) but not with integrative motivations' (p. 265).

Two points should be emphasized here. First, the study dealt with orientations not motivations. Although it is possible that the instrumental orientations were more highly related to motivation in this context, this wasn't demonstrated. Furthermore, the correlation between the two orientations was .443, and, applying Hotelling's (1940) t-test (see also Chapter 4) to these correlations, it is clear that the correlation between the instrumental orientation and English achievement was not significantly higher than that between the integrative orientation and achievement ($t(47) = 1.213$, n.s.). This study also found significant ($p < .01$) correlations between the Cloze test and evaluative ratings of the ideal self, and between both integrative and instrumental orientations and evaluative ratings of Marathi speaking people. It appears, therefore, that attitudes toward the own community and the ideal self are interwoven with orientations toward English study and English proficiency among this sample of students.

The importance of the motivational component linking attitudes and achievement is demonstrated in the next chapter. Other research has, however, studied the effects of motivational indices independently of attitudes. Larsen *et al.* (1942), for example, compared two groups of 27 students of a first semester German course at the University of Illinois. These subjects were selected so as to be equivalent on intelligence but differing maximally on German achievement. These low and high achievement groups were compared on a number of measures, and, probably because of the matching on intelligence, they were found not to differ on a number of indices of ability and language aptitude. Of major importance to the present discussion, however, these groups did differ significantly on a number of behaviours which reflect either interest or effort in learning German. In structured interviews, the high achievement students indicated, for example, that they were significantly more interested in German,

that they viewed assignments as steps to mastery, that they made daily preparation, and that they studied corrections. Wittenborn *et al.* (1945) considered the motivational aspects of second language acquisition from a slightly different perspective by developing a detailed examination of study habits. They presented a questionnaire of 90 items applicable to French students, and 101 items for Spanish students, of which 85 are common to the two languages. Examination of the items suggests that they tap the effort component of motivation discussed here, as well as what would now be viewed as language learning strategies. In their analysis, they distinguish between three classes of items: personal or emotional, knowledge of subject matter or content and skill and study technique. Items from each category were related to proficiency in the second language, and one analysis even indicated that many of these relations are maintained when the effects of intelligence are partialled out.

The research demonstrates that the acquisition of a second language is a complex process and that, when considering the motivation to learn a language, this complexity must be realized. It is not sufficient to simply consider one aspect of motivation. The totality of motivation and its relation to other characteristics of the individual must be recognized in any investigation of the role of motivation or attitudes in second language learning. This same conclusion was drawn by Gardner *et al.* (1978), who demonstrated that whereas some attitude or motivation measures tended to be more highly related to some particular aspect of second language acquisition, other attitude or motivation measures tended to be more highly related to other aspects.

They suggested as a result that, in order to understand the role played by attitudes and motivation in second language acquisition, it was necessary to conceptualize them as a complex organization of attitudes and motivation. They suggested that one complex that seems particularly involved in second language learning was best identified as an integrative motive. This concept is discussed in more detail in subsequent chapters, but one consideration highlighted by this type of analysis is a focus on the process linking attitudes and motivation to second language achievement. It suggests that attitudes and motivation are important because they determine the extent to which individuals will actively involve themselves in learning the language. This, in turn, suggests that the prime determining factor is motivation. This generalization receives support from studies that are concerned with aspects of second language acquisition other than achievement. Two such aspects are perseverance in language study and classroom behaviour.

Attitudes, motivation and persistence in language study

The hypothesis that attitudes and motivation are influential in second language acquisition because they orientate the individual to seek out opportunities to learn the language receives support from investigations of the language drop-out. The first study of this phenomenon appears to have been conducted by Bartley (1969). She administered the Modern Language Aptitude Test (Carroll and Sapon 1959) and a Foreign Language Attitude Scale to grade eight students of foreign languages. The Foreign Language Attitude Scale consisted of 30 items dealing with various factors which could influence attitudes toward foreign language learning. These factors include the teacher, parents, peers, and

the perceived importance of the language in the overall curriculum. The scale was originally developed with reference to Spanish, but Bartley (1969, 50) states that it was necessary to adapt it for French, German and Latin; so it would appear that subjects for that study were also enrolled in these other language classes. The study, therefore, confounded both the languages studied and the nature of the attitudes investigated. It was important, however, in that it demonstrated that foreign language drop-outs had significantly less positive attitudes and lower aptitude scores than did those electing to continue foreign language study the following year.

In a follow-up study, Bartley (1970) administered the Foreign Language Attitude Scale to all grade eight students enrolled in modern foreign languages in two junior high schools in Palo Alto, California. The test was administered twice, once in September and again in March. A total of 423 students completed both testings, though 662 students were actually tested in the first session. The results compared the 89 students who had not included a foreign language in their ninth grade schedules (the drop-outs) with the 334 who chose to continue language study in the ninth grade. They indicated that the drop-outs had significantly less favourable attitudes than the continuing students both at the beginning of the term (September) and the end (March). Furthermore, the drop-outs demonstrated a significant reduction in their attitudes from September to March, while the attitudes of the continuing students were relatively stable.

A study by Mueller and Harris (1966) suggests that the nature of the language course could influence the drop-out rate and, thus, possibly the variables associated with dropping out. They compared the proportion of drop-outs in two college level French programmes. One was an experimental audio-lingual programme which made extensive use of programmed instruction, while the other was an audio-lingual programme based on textbooks and laboratory exercises. Mueller and Harris (1966) considered two interpretations of dropping out, with comparable results. First, they compared the proportion of students in the two programmes who dropped out during the term in which they were registered; the proportion was significantly lower in the experimental programme. Second, they compared proportions of those who dropped out before completing their second year (apparently including those who dropped out during the first year); again the drop-out rate was significantly lower for the experimental programme. They suggest that the relative success of the experimental programme in 'holding' students was because the students were 'satisfied with and confident of their French language proficiency. . .' (p. 136).

This conclusion clearly implicates attitudes and motivation in the decision to drop out. Other findings show that language aptitude is also involved in the decision to drop out. In 1964-5, all students were administered the Modern Language Aptitude Test (Carroll and Sapon 1959). In the experimental programme 45 per cent of the students classified as low aptitude completed their first year course, while only 20 per cent of the low aptitude students in the other programme completed their year. These results agree with those reported by Bartley (1969) that language aptitude is involved in the decision to continue or drop out of language study, but they demonstrate further that the nature of the programme can considerably moderate its influence.

Clément *et al.* (1978) present data from two studies comparing attitudinal, motivational, ability and language achievement characteristics of students in

grade nine, 10 and 11 who dropped out of the French programme with those who continued. In the first study, attitude and motivation measures were obtained in April and May, while French achievement measures were obtained in June of one year, and identification of drop-outs versus those who continued was determined the following September when school began again. In the second study, the Modern Language Aptitude Test (Carroll and Sapon 1959) was administered during December and January, the attitude and motivation measures between February and April, and measures of French achievement in May. Drop-outs versus those who continued were identified the following September. Clément *et al.* (1978) present the proportion of variance accounted for in the distinction between drop-outs and those who continued by seven variables in the first study and nine in the second study (attitudes toward the learning situation (teacher plus course) and language aptitude were added). At all three grade levels in both studies, the measure of motivation (a sum of motivational intensity, desire to learn French and attitudes toward learning French) was more predictive of who would drop out than any other measure, and, for each of the six samples, interest in foreign languages was the next best predictor. The poorest predictors varied slightly from grade to grade and study to study. For the grade nine students, achievement in French was one of the two poorest predictors in both studies, with integrativeness (an aggregate of attitudes toward French Canadians, attitudes toward the European French and an integrative orientation) and parental encouragement in Studies I and II respectively. For grade 10, parental encouragement was a consistently poor predictor with integrativeness (Study I) and language aptitude (Study II). For grade 11, parental encouragement and French classroom anxiety were the poorest discriminators between the two groups. These results reinforce those presented above in demonstrating that attitudinal/motivational variables are more influential in determining perseverance in language study. They also suggest that these variables are even more important than either language aptitude or even proficiency in the second language. Following the early analysis, however, they again indicate that attitudinal/motivational characteristics which are the most relevant to the behaviour in question are the most predictive. The important role of the general motivational construct in this respect is particularly clear.

Attitudes, motivation and classroom behaviour

The role of attitudes and motivation is also demonstrated in studies focusing on classroom behaviour. In the first of two studies, Glikzman (1976) administered a battery of attitude and motivation tests to classes of grade nine (14-year-old) students in the first week of school and observed them in six different classes throughout the term. He classified students as integratively motivated or not on the basis of a median split on total scores on six measures, attitudes toward French Canadians, attitudes toward the European French, degree of integrativeness, attitudes toward learning French, motivational intensity and desire to learn French. Observations were made on the number of times each student volunteered (i.e., raised a hand), was asked by the teacher when not volunteering, answered correctly, or incorrectly, asked questions, or received

positive, negative, or no feedback from the teacher. The results indicated that integratively motivated students volunteered more frequently (particularly among males), gave more correct answers and received more positive reinforcement from the teacher than those not so motivated. These results did not interact with sessions indicating that the differences were generally consistent throughout the term.

In a second study, Gliksmann (1976; see also Gliksmann *et al.* 1982) replicated this study with students in grades nine, 10 and 11, observing them once every two weeks for a period of four months. Again, students were classified as integratively motivated or not based on a median split of scores derived from the attitude/motivation test battery administered in the first week of classes. Observations were made on four frequency variables, the number of times each student volunteered, was asked a question by the teacher when not volunteering, gave a correct answer or gave an incorrect answer. In addition, at the end of each session, raters estimated on a seven-point scale how interested the student had appeared during the class. The results for this study were comparable to those reported above. In contrast with those who were not integratively motivated, those who were, volunteered more frequently, gave more correct answers, and were rated as more interested during classes. Again, these results did not interact with sessions, suggesting that they were fairly constant over the entire term.

A somewhat different strategy was employed by Naiman *et al.* (1978). As part of their investigation of the good language learner, they observed a total of 72 students in grades eight, 10 and 12 from 12 classes. They were selected in such a way that approximately half of the students were among the best in the class and the others were among the least proficient. The students were observed for a total of 225 minutes of class time (or the data were adjusted to this standard), and scores were obtained on 22 student-centred behaviours and 17 teacher-centred ones. Examples of the former are 'the number of times the student raised his/her hand' and 'percentage of student responses that involved hesitation or rising intonation'. Examples of the latter are 'percentage of teacher evaluation that included providing the answer to the student' and 'percentage of total teacher questions that were not initial questions'.

Naiman *et al.* (1978) obtained five composite attitude/motivation measures on each student. These were 'integrative orientation' (degree of integrativeness plus attitudes toward French Canadians plus attitudes toward the European French), 'instrumental orientation' (degree of instrumentality plus need achievement), 'evaluation of means of learning French' (teacher and course evaluation), 'motivation' (motivational intensity plus desire to learn French plus attitudes toward learning French) and 'lack of ethnocentrism' (interest in foreign languages minus ethnocentrism).

Naiman *et al.* (1978) present the significant correlations between these five measures and many of the student-centred behaviours. Directing attention only at those correlations that were significant at the one per cent level indicates that integrative orientation, motivation, evaluation of the means of learning French and instrumental orientation were all correlated positively with student hand-raising (comparable to volunteering in Gliksmann's (1976) studies), that motivation and lack of ethnocentrism were negatively related to the number of times the student gave no answer or stated 'I don't know', that lack of

ethnocentrism was positively related to student hesitation and negatively related to the percentage of responses that were complete, and that evaluation of the means of learning French was positively related to whether or not students responded more than 10 times, and negatively related to the percentage of incorrect responses.

These results, like Gliksmann's, clearly establish a relation between attitudinal/motivational variables and behaviour in the language classroom. Moreover, the relations generally suggest that attitudes are important in that they determine how active individuals will be in the language learning process. This generalization receives further support by Roger *et al.* (1981) in a study conducted in England. In order to validate their attitudes to learning foreign languages scale, they had French teachers rate their third year pupils on their enthusiasm and attentiveness, and formed two groups on the basis of the combined ratings. Students classified as highly attentive and enthusiastic ($N = 59$) had significantly more favourable attitudes toward learning French than those rated as low on this dimension ($N = 27$). Since it is reasonable to assume that a teacher's perceptions of a student as enthusiastic and attentive probably reflect the student's typical classroom behaviour these results also suggest that attitudes have a definite motivational component.

Summary and conclusions

The intent of this chapter was to focus attention on specific attitude measures as they relate to second language achievement and to consider the question of why they are so related. A review of the literature indicated that attitudes toward learning a second language and attitudes toward the second language community both tended to be correlated with proficiency in the language, but that, in general, the relations involving attitudes toward learning the second language were more consistent. Both types of attitudes have been shown to be relatively independent of intelligence and/or language aptitude but to relate to factors in the environment or subject characteristics such as age or sex. Other material presented for the first time in this chapter demonstrated that, whereas different types of attitudes relate in varying ways to different aspects of achievement in the second language, attitudes toward learning the language tend to be among the better predictors, while attitudes toward the other community tend to be consistently poorer. It was argued that such results are to be expected on the basis of relevance and that, rather than be concerned with such differential relationships, a more important task would appear to be to explain the reasons for such associations.

Focusing on the question of why leads inevitably to a consideration of motivation. In the context of second language acquisition (if not all aspects of behaviour), three components seem necessary to adequately describe the motivated individual, and one of these involves attitudes toward the behaviour in question, in this case learning the language. Thus, motivation involves an attitudinal component. Motivation also involves goal-directed behaviour, and it is proposed that different reasons for learning a second language (orientations) might be related to achievement in the second language to the extent that they reflect differences in motivation. One type of motivation that could be influen-

tial, and which relates a series of attitudes to motivation, is an integrative motive.

A consideration of the motivational construct also suggests that attitudes and motivation might relate to other aspects of behaviour which are related to second language acquisition. Two of these, persistence in language study and classroom participation, reflect volitional behaviour on the part of the student, and a consideration of them demonstrates once again that attitudes and motivation are involved in the learning process. These relationships suggest, therefore, that attitudes and motivation are important because they reflect an active involvement on the part of the student in the entire process of learning a second language.

4

Multivariate investigations of second language acquisition: focus on the integrative motive

Overview

The previous chapter demonstrated that both attitudinal and motivational measures are related to aspects of second language acquisition, and the concept of the integrative motive was introduced to identify the merging of attitudinal and motivational variables. Considerable research has supported the generalization that achievement in a second language is facilitated by an integrative motive, though this terminology and this interpretation are not always used. The purpose of this chapter is to review the empirical literature which bears on the relevance of a concept like the integrative motive to second language acquisition. Since this concept refers to a complex of attitudinal and motivational characteristics, this review must of necessity be directed toward those studies that include a number of measures of attitudes and motivation.

Two different types of research strategy have been used in studying the relationship of many attitudinal and motivational measures to achievement in a second language. One class of studies involves the use of factor analysis of a number of attitudinal and motivational measures along with indices of achievement in the second language (and often assessments of language aptitude) in order to uncover the major dimensions underlying the relations among these different variables. Often, but not always, the scores used to assess each variable are based on tests or scales developed following standard psychometric procedures. The second class of studies make use of the multiple regression procedure which has as its primary objective the identification of those measures which when weighted by regression coefficients produce an aggregate score which correlates highest with a criterion, in this case some index of second language achievement. This correlation is referred to as a multiple correlation. Often in these studies the predictors are single items or composites based on factor analyses of possible predictors without the inclusion of the measures of second language achievement.

Both of these approaches have limitations and possible pitfalls that must be considered very carefully when evaluating research using them, and these are discussed in this chapter. In general, most but not all of the factor analytic studies support the notion of an integrative motive as being important in second language acquisition, while the multiple regression studies appear to cast doubt on this conclusion. It seems important, therefore, to scrutinize the results carefully and consider the possible reasons for these apparent contradictions. Obviously, I am biased, but it is my opinion that the weight of evidence supports

the generalization that an integrative motive does facilitate second language acquisition. Examination of the studies indicates, however, that the relationships are influenced by a number of factors and that research must be designed carefully with these factors in mind. Many variables affect the learning of a second language, and by focusing attention on the integrative motive there is no intention of ruling out these other factors. In fact, they must be viewed as possible confounding variables in any investigation. These methodological considerations are discussed following the review of the studies. At that time, the difficulties involved in using multiple regression as an interpretative tool are also discussed.

Factor analytic investigations

The use of factor analysis to study the dimensionality underlying the relationships among a number of variables leads to potential difficulties, particularly when the variables represent somewhat different conceptual domains such as attitudes, language aptitude or second language achievement. In interpreting a factor, the researcher attempts to determine what is common among those variables which receive relatively high loadings on a factor, as distinct from those with low loadings. Often a factor is given a name to reflect this common theme, and different researchers will often disagree on the validity of the name applied.

It should also be emphasized that in factor analysis, variables that contribute to the same factor generally (but not always) tend to have relatively high inter-correlations so that, particularly when different content domains are sampled, it is often the case that variables from one domain dominate a factor. Thus, for example, if a factor reflects an attitude dimension, various measures reflecting that attitude will receive substantial loadings. Variables that share some variance in common with this attitude (but are not measures of that attitude) will show lower loadings on that dimension in comparison with the attitude measures, but these loadings will still be sufficiently high as to suggest that this attitude dimension is involved to some extent in that measure. Thus, if measures of attitudes, language aptitude and second language achievement are factor-analysed, generally what will be obtained are individual factors of attitudes, language aptitude and second language achievement. Variables from different domains will demonstrate their relationship to the dimension by lower but appreciable loadings. That is, if attitudes and motivation are involved in second language achievement, this will be evidenced either by attitude and motivation measures contributing somewhat to a second language achievement factor or indices of second language achievement contributing somewhat to an attitudinal/motivational factor. This type of pattern is very common in the articles to be reviewed.

The early studies

The first factor analytic study of the relation of attitudes and motivation to second language achievement was conducted by Gardner and Lambert (1959). They factor-analysed the correlations among 14 variables obtained on 75 grade

11 students who were studying French as a second language. Of the four factors obtained, two were related to ratings of achievement in French. One factor was identified as a language aptitude factor, the other as a motivation factor. The definition was modified, however, with the statement (p. 271), 'It should be emphasized . . . that this denotes a motivation of a particular type, *characterized by a willingness to be like valued members of the language community.*' (the authors' original italics).

The pattern of correlations underlying the structure for the motivation factor is particularly informative. Four variables defined that factor; ratings of French oral/aural achievement, the orientation index, attitudes toward French Canadians, and motivational intensity. All of the correlations involving these variables, except that between the achievement ratings and the attitude scale, were significant ($p < .01$), indicating clear associations among an integrative orientation, attitudes toward French Canadians, and motivational intensity. Although attitudes toward French Canadians weren't directly related to French achievement, their inclusion on the motivational factor established a link between ethnic attitudes, orientation, motivation and second language achievement.

Gardner (1960) extended this line of research in the Montreal area by including nine objective measures of French proficiency and increasing the number of attitude measures. One attitude variable introduced in this study was the 'desire to learn French' measure which was included to assess the want component of motivation. The findings were comparable to those reported above. The measures of French proficiency were related to the measures of language aptitude as well as to the attitudinal/motivation cluster.

In a study conducted in 1961, but published many years later, Gardner and Lambert (1972) extended the general research paradigm to the American setting, investigating students of French as a second language who came from either English or French speaking homes. Samples from the former group included high school students from Louisiana, Maine and Connecticut; French American students were tested in Louisiana and Maine. For all samples, the indices of language aptitude, motivational intensity and desire to learn French were associated with achievement. In both French-American samples the motivational indices were less related to French achievement than in the other samples, and furthermore the two motivational indices were not clearly related to any attitude variables. This was not the case for the other samples even though the patterns differed appreciably. In Louisiana, for example, the motivational variables were related to perceived parental support, while in Maine they were related to empathy and evaluation of the French teacher. Only in Connecticut were the two motivational components associated with an integrative orientation. Among English speaking students in Connecticut, unprejudiced democratic attitudes were associated with achievement; in Louisiana this pattern was accompanied by favourable attitudes toward French speaking people; with Louisiana French speaking students, achievement was associated simply with favourable attitudes toward French speaking people.

The extension of this paradigm to the American settings was important for two reasons. First, it showed that attitudinal/motivational variables are involved in second language acquisition even in cultural settings where the

language is not an appreciable part of community language. Second, the American studies showed that the relationship between attitudes, motivation, language aptitude, and French achievement can reveal themselves in many ways. Attitudes, motivation and language aptitude are each generally related to proficiency in the second language, but their inter-relationships differ considerably from sample to sample in ways that seem meaningful given the nature of the community.

Other research conducted in these early years indicated that the relation of attitudes and orientation to language achievement can be influenced by a number of factors. Lambert *et al.* (1963) factor-analysed the correlations among measures of attitudes, orientation, connotative meaning similarity between English and French equivalents and achievement in French for two different groups of students in an intensive six-week summer language programme. For elementary students, achievement in French contributed appreciably to one factor, suggesting that 'students with favourable attitudes toward France, a willingness to identify with French people, and a capacity to modify meanings of French concepts are more likely to do well in the French course.' (p. 362). For advanced students, however, there was no factorial association between French achievement and attitudes or orientation.

Later studies in elementary and secondary schools

A number of years after this initial series of investigations, research began to accumulate more evidence concerning the relation of attitudes, motivation, and often language aptitude to second language achievement. The first of these studies were conducted by Feenstra (1967), who investigated the factor composition of these variables among grade eight students in London, Canada. He included measures of attitudinal/motivational characteristics obtained from the students' parents, but the relation of student language proficiency to parental attitudes and motivation will not be discussed until Chapter 6. Of major interest for the present section was the finding that a motivational factor was obtained which showed a clear association between motivation and attitudes toward French speaking people. This pattern was related to measures of proficiency in French.

The same approach was used in a study of senior high school students in Manila, Republic of the Philippines, who were studying English as a second language (Gardner and Santos 1970; see also Gardner and Lambert 1972, Chapter 7). They found a factor which they labelled an integrative motive factor because of the association of attitudes, orientation and motivation. This factor also received appreciable loadings from measures of oral language proficiency but not objective paper and pencil measures of language knowledge. As with the study by Gardner (1960), but unlike those by Feenstra (1967) and Gardner and Lambert (1959), this factor did not include attitudes toward the other language community.

Smythe *et al.* (1972) also factor-analysed similar measures obtained from two samples of grade nine students, one enrolled in a traditional French programme, and the other registered in an audio-lingual course in London, Canada. The results were similar for the two samples, suggesting that the nature of the

programme does not materially affect the relationships between achievement in a second language and either attitudes, motivation, or language aptitude. In both samples, the integrative motive factor included measures of attitudes toward the French speaking community.

In all of the research discussed to this point, little attention was directed to ensuring that the measures of attitudes and motivation were reliable or valid. This, however, was the goal of Gardner and Smythe (1975a) who were concerned with developing tests which had good psychometric properties and which were appropriate for students in grades seven to 11. They began by developing a large pool of items with which to assess a total of 22 attitudinal/motivational characteristics which had either been shown to be important for second language learning, or which they felt could be important.

After careful screening and editing, the entire battery was administered to approximately 100 students at each of the five grade levels along with a number of measures of French achievement appropriate to each grade. As a first step, a series of item analyses was conducted in order to identify those items which best measured each construct. Since we wanted one test battery appropriate to all five grade levels, decisions concerning which items to retain were based on a consideration of the item-total correlations at each grade level. In the final analysis, we focused attention on 16 subtests, and, once the items had been selected, measures of internal consistency reliability (Cronbach coefficient alpha) were computed. These were generally very high. Of the possible 80 reliability coefficients, 62 (i.e., 78 per cent) were .70 or greater, and only six were less than .50.

These results were cross-validated in a second study involving approximately 300 students at each of grades seven to 11. Internal consistency reliabilities were computed and the values were comparable to those obtained previously. Fifty four (68 per cent) of the coefficients were greater than .70, and only three were less than .50. Students also completed the five subtests of the Modern Language Aptitude Test (MLAT) (Carroll and Sapon 1959) and measures of French achievement appropriate to each grade. Factor analyses of the relations among the variables at each grade level revealed consistent patterns (see Gardner and Smythe 1981 for a published summary of this research). An integrative motive factor was obtained for each grade level, and moreover, the motivational indices, primarily motivational intensity, desire to learn French and attitudes toward learning French were consistently related to indices of French achievement. The MLAT subtests were also related to French achievement, demonstrating once again the role of both ability and motivational variables in determining achievement in a second language.

This investigation also introduced another criterion, the behavioural intention to continue French study the next year. At all grade levels, this intention contributed to the integrative motive factor, indicating that this attitudinal/motivational complex was clearly related to the predisposition to seek out opportunities to learn the second language.

Following this, a series of factor analytic studies were conducted in seven different regions across Canada. Aspects of these data have been discussed in some articles. For example, Gardner, Smythe, Clément and Glikzman (1976) presented correlations between various subscales and indices of French achieve-

ment and behavioural intention to continue French study calculated on samples of students in each of grades seven to 11. Before the correlations were computed, the data were first standardized within groups to remove the effects of extraneous variables and then aggregated over all regions for each grade level. The results demonstrated that motivation and language aptitude were both good predictors of proficiency in the second language, whether this was defined in terms of class grades, standard paper and pencil tests, or indices of oral proficiency. Motivation was clearly a better predictor than language aptitude as to whether the students availed themselves of prior opportunities to use the language or whether they intended to continue language study. Various attitude measures tended to have lower but nonetheless significant correlations with the criteria. Gardner (1979) also used data from two regions to test the hypothesis that motivation mediated the relationship between attitudes and achievement. He demonstrated that correlations between various attitude measures and achievement were considerably reduced (and often not significant) when the effects of motivation were partialled out, while partialling attitudes out of the motivation/achievement correlations did not have much of an effect.

Gardner *et al.* (1984) have prepared a research bulletin summarizing the factor structure underlying these variables. This study factor-analysed the data separately for each grade in each area (a total of 31 samples) in order to identify the major underlying dimension in each. The results of these analyses demonstrate fairly consistent characterizations of Varimax factors identified as integrative motive, French achievement, self-perception of French competence, language aptitude, and evaluation of the learning situation. The loadings from these factors were then intercorrelated and factor-analysed to assess the replicability of the dimensions across samples. This latter analysis considered the samples in three distinct categories, elementary school students (grades seven and eight), secondary school students (grades nine to 11) in monolingual regions, and secondary school students in bilingual regions. These results demonstrated that factors reflecting evaluation of the learning situation and an integrative motive are consistent across ages and type of region. Other factors such as self-perception of French competence and French achievement, though generally consistent across age within monolingual regions, tend to blend together at times in bilingual regions, suggesting that opportunities to use the language can have profound effects on the composition of these major dimensions. In bilingual regions, too, the distinctiveness of language aptitude is somewhat more pronounced than in monolingual areas. Such findings indicate the very obvious importance of considering the make-up of the socio-cultural community when investigating factors involved in second language acquisition.

Other research conducted during this period by Desrochers (1977) examined the factor structure of student measures of attitudes, motivation, and second language achievement and parents' attitudes in two samples of grade eight students, one that took part in a brief excursion to Quebec City, and the other that did not. There were 183 students in the first group (referred to as the exposure group) and 167 in the second (the no-exposure group). All attitude, motivation, second language achievement and parental attitude measures were administered approximately five weeks before the excursion. A factor analysis

of the data obtained from the no-exposure group yielded three factors, identified as integrative motive, parental attitudes and French proficiency. Of relevance to the present discussion was the fact that the integrative motive factor was defined by the various attitude and motivation measures as well as the behavioural intention to continue French study. The French proficiency factor received the highest loadings from measures of French achievement, but lower and appreciable loadings from tests of motivation and anxiety associated with French use and study (these latter associations being negative). The factor analysis of the exposure group also included measures involving interactions with French Canadians during the excursion. Three factors were obtained in this analysis, integrative motive, parental attitudes, and inter-ethnic interaction. The integrative motive factor was similar to that obtained with the other sample with the exception that the measures of French proficiency also contributed to this dimension. Of interest, too, was the fact that the inter-ethnic interaction factor also included indices of motivation and French anxiety (this latter, negatively loaded).

Studies of other languages and other contexts

It was around this time that research started to consider other cultural settings and other languages. Clément *et al.* (1976) prepared a French version of the Attitude/Motivation Test Battery measuring similar attributes but standardized on French Canadian high school students learning English as a second language. In the first study using this battery, Clément, Gardner and Smythe (1977a) tested 153 students in grade 10, and 151 in grade 11 in Montreal and conducted separate factor analyses on the two samples. Comparable factor solutions were obtained in each case, and the factors were similarly labelled as an integrative motive, self-confidence with English, academic achievement and alienation. Measures of English achievement obtained appreciable loadings on the self-confidence with English factor, which also shared variance in common with the indices of motivation. Behavioural intention to continue English study contributed to the integrative motive factor for the grade 11 sample, the final year for which English is compulsory. In summarizing their results, Clément *et al.* state, '... while the individual's intention to continue studying English is related to an integrative motive, his actual competence in the second language seems to be more closely related to a dimension of motivation which is best described as self-confidence derived from prior experience with the language' (p. 123).

In the second study, Clément *et al.* (1980) tested 223 grade 11 students from Montreal. Three factors were obtained in this investigation, integrative motive, self-confidence with English, and academic achievement. As before, the behavioural intention to continue studying English loaded on the integrative motive factor, indicating the importance of attitudinal/motivational attributes in such decisions. Aspects of English achievement contributed to the self-confidence with English factor, which again had a motivational component.

Clément, Major, Gardner and Smythe (1977) extended this research to other regions by investigating a sample of 130 grades seven and eight Franco-Ontarian students. A factor analysis of the relations among 29 variables resulted in three

factors, identified as integrative motive, self-confidence with English, and English achievement. Although measures of English proficiency (teacher ratings, student ratings, and grades) did not contribute appreciably to the integrative motive factor, a measure of the frequency of use of English did, showing a clear link between attitudinal/motivational characteristics and language use. Moreover, indices of attitudes and motivation contributed to both the self-confidence with English and English achievement dimensions. Another aspect of the study assessed the relation between major second language acquisition contexts and various student characteristics. Language acquisition contexts did not have any significant effects on attitudes or motivation, though they did on many of the measures which served to define the self-confidence with English factor. In general, students who claimed that they learned most of their English at school tended to rate their skills less highly, to be more anxious, to report less use of English, and to be rated less proficient in their speaking skills than students who claimed to acquire the language in other contexts. Such results support the generalizations made by Clément, Gardner and Smythe (1977a) that self-confidence derives from prior experiences in the learning process.

Laine (1977) demonstrated that the Attitude/Motivation Test Battery could be adapted for use with Finnish students learning English as a second language. In developing the instruments, he conducted a pilot study among 81 students, assessing both internal consistency and test/retest reliabilities of the various tests. Internal consistency coefficients for all attitude and motivation measures ranged from .47 to .93, while test/retest coefficients ranged from .40 to .82. The major study involved 845 Finnish secondary and basic school students ranging from 15-16 years of age. The majority of these students had been studying English for seven years. Reliabilities of the attitude and motivation measures conducted on the large sample were very good. Cronbach alpha coefficients for nine measures which are comparable to the major attitude/motivation variables ranged from .78 (integrative orientation) to .93 (attitudes toward learning English). Test/retest coefficients varied from .30 (orientation index) to .86 (desire to learn English).

A factor analysis of the relationships among the attitude/motivation measures, aptitude, and English proficiency yielded five factors. They were English language achievement, general learning motivation (comparable to the integrative motive factor but omitting the measure of integrative orientation), language aptitude, self-confidence with English, and an unnamed dimension characterized by non-anxiety, non-ethnocentrism and an integrative orientation. The self-confidence with English factor received loadings from motivation and achievement measures, demonstrating again the link between motivation and second language achievement, while measures such as attitudes toward Englishmen, attitudes toward Americans, and interest in foreign languages contributed to the general learning motivation factor indicating the close association between attitudes and motivation.

Gordon (1980) extended this research to Belize in Central America where she tested 129 Standard Six students (ages 11 to 15) selected at random from 17 schools. The tests administered included the Elementary form of the Modern Language Aptitude Test (EMLAT) (Carroll and Sapon 1967) and a modifica-

tion of the Attitude/Motivation Test Battery. Ten measures of English proficiency were also obtained on each student. The initial analysis involved a factor analysis of the relations among the aptitude, attitude and motivation measures. Four factors were obtained which were identified as language aptitude, integrativeness, motivation and attitudes toward the learning situation. Allowing for differences due to the modifications made to the original Attitude/Motivation Test Battery, this structure conforms to the three major clusters assumed to underlie the test. In order to assess the relation of attitudes, motivation and language aptitude to achievement in English, scores on the variables clearly defining each of these factors were summed to yield four measures. The correlations of these composite variables with five measures of English competence were determined. In each case the best correlate was language aptitude. For four of the measures, letter-writing, composition, English usage, and teacher's ratings, attitudes toward the learning situation was the next best correlate, followed by integrativeness and motivation in that order for all but teacher's ratings, when this order was reversed. For the fifth measure of English achievement, self-ratings, the order of magnitude of the correlations for the attitude and motivation tests was motivation, integrativeness and attitudes toward the learning situation. Of all the correlations, only this latter one was not significant. The correlations were, however, much larger for the language aptitude measure, ranging from .40 to .82, than they were for attitudes toward the learning situation (range is .07 to .38), integrativeness (.20 to .28) or motivation (.23 to .26). Hoyt reliabilities for these composite measures were substantial, exceeding .80.

Muchnick and Wolfe (1982) adapted the Attitude/Motivation Test Battery for American students studying Spanish as a second language. Subjects were 337 students from 21 intact classes of Spanish in three schools near Philadelphia. There was a small Hispano-American community in the school district for one of the schools. Cronbach alpha reliability coefficients for the subscales ranged from 0.48 (instrumental orientation) to 0.93 (Spanish course - evaluation).

Rather than factor analyse the attitude/motivation measures and the proficiency indices in one matrix, Muchnick and Wolfe analysed the correlations among the attitude and motivation measures and obtained four factors. The first was identified as an Attitude-Motivation Index (AMI) factor because it obtained high loadings from eight measures similar to those included in the AMI by Gardner, Clément, Smythe and Smythe (1979). Factors II and III were defined as attitudes toward the Spanish teacher and the Spanish course respectively, while Factor IV was defined as Spanish class anxiety. Factor scores were then correlated with eight demographic variables. The authors summarize these correlations by stating that, 'sex was the only variable with moderately high positive correlations with all four factors . . .' (p. 276). Their table indicates, however, that teachers' grades in Spanish correlate significantly negatively with factor scores for attitudes toward the Spanish course and Spanish class anxiety. Other descriptions of this matrix would suggest that these correlations indicate that high grades in Spanish are associated with positive attitudes toward the course and low levels of anxiety.

Studies concerned with university students

Teitelbaum *et al.* (1975) investigated American university students in their third semester of Spanish as a second language. The data were analysed separately for two groups. Group A comprised 36 students with a Spanish heritage who may or may not have claimed Spanish as their first language. Group B consisted of 71 students who did not indicate a Spanish identity. The study considered the relationships between 109 predictors (mostly single items) and a Cloze measure of Spanish proficiency at both the correlational and the factor analytic level. For Group A, only four measures correlated significantly with the measure of Spanish proficiency. These correlations indicated that proficiency in Spanish was associated with disagreement with the item that Spanish would be useful for employment, disagreement with the belief that minorities should conform to American values, a relatively large amount of time spent in Mexico, and a tendency to have all family members foreign born. Four items also correlated significantly with the Cloze test for Group B. These relationships indicated that proficiency was associated with a preference for Spanish over other courses, a belief that learning Spanish was easy and enjoyable, a relatively small amount of time spent per week studying Spanish and a tendency to believe that Chicanos are not democratic. Although some of these correlations are not easily interpretable, what is more striking is the relatively low number of significant correlations. With so few, it seems possible that even these could reflect sampling fluctuations.

Factor analyses of these matrices produced only one factor in each group which included the Cloze measure of Spanish proficiency. As might be expected, these factors tended to include the variables which correlated significantly with the Cloze test. This study, therefore, tended not to agree with the majority of studies discussed previously. Although many of the items used were similar in that they were adapted from Gardner and Lambert (1972), this study differs also in that the basic data were item responses as opposed to scale scores. That is, most of the other studies generated scores on scales such as interest in foreign languages by summing responses to items designed to tap this attitude. Since it can be shown that, other things being equal, single items are considerably less reliable than scale scores (see Nunnally 1978), it is possible that the results of this study simply reflect random variation resulting from unreliable item scores. The fact that so few of the items correlated with the Cloze test supports such an interpretation.

Other studies conducted in Canada have considered the roles of attitude, motivation, and language aptitude in the acquisition of a second language by university level students. In one study Gliksman (1981) tested a sample of 96 university students registered in introductory French courses. He determined the Cronbach internal consistency reliability of the subtests of the Attitude/Motivation Test Battery as modified for university level students and the factor structure of these measures along with indices of language aptitude, French proficiency, and academic performance. In general, the reliability estimates of the subtests were satisfactory, varying from .70 (degree of instrumentality) to .96 (French course - evaluation). The factor analysis yielded four factors which were identified as Attitude Motivation Index, (AMI), reported achievement, ethnocentrism and evaluation. The AMI factor was similar to the

integrative motive factor obtained in other studies. One missing variable was attitude towards French Canadians which loaded highly (and negatively) on the ethnocentrism factor. The other was French instructor: evaluation, which loaded on the evaluation factor. The objective measure of French proficiency also loaded appreciably on the AMI factor, indicating a clear association of attitudinal/motivational measures and second language achievement in this study.

In a second study Glikzman (1981) administered a battery of attitude, motivation, demographic and French achievement measures to 139 university students enrolled in introductory level French courses. A factor analysis of the correlations among the 26 variables yielded seven factors. These were identified as French proficiency, integrative motive, humanitarianism, school achievement, semantic differential - attitude towards the learning situation, social desirability, and years of language study factors.

The integrative motive factor obtained in this study was defined by group - and language-related attitudes and motivation measures but not reactions to the language course or teacher, which formed an independent factor. The French proficiency factor included loadings from the indices of motivation as well as negative loadings from measures of French use and French class anxiety. Two other factors were of interest. One, humanitarianism, was defined by a series of attitude measures reflecting a concern for others. They were included in the study to determine whether the integrative motive factor was relatively specific to attitudes involving language related issues or whether it reflected more general attitudes. The independence of the integrative motive factor and humanitarianism is, therefore, an indication of one aspect of discriminant validity of the integrative motive. A second factor, social desirability, demonstrated a social desirability component in the measures of motivational intensity and desire to learn French. Glikzman suggested that this pattern indicated either that there is a social desirability response bias in these two measures, or that wanting to learn French and working hard to do so are perceived as being sanctioned by our society. Gardner and Glikzman (1982) used these data to demonstrate, nonetheless, that the correlation between motivation and second language achievement remains essentially unchanged if social desirability is partialled out, indicating that regardless of the interpretation the relation between indices of motivation and second language proficiency which are obtained cannot be attributed to social desirability.

In both studies, Glikzman contrasted the correlations between AMI scores and various criteria with those involving the same criteria with attitude scores derived from scores using methods proposed by Fishbein and Ajzen (1975). This latter technique determines the attitude toward particular acts by assessing the belief that the act will lead to a particular outcome, the evaluative reaction toward that outcome, and the influence of the social environment in that behaviour. In the first study, Glikzman considered five behavioural intentions (e.g., to speak French in class) and two indices of achievement, one based on self-ratings and the other an objective measure of aural comprehension. The results demonstrated that the Fishbein and Ajzen measures correlated highest with the appropriate behavioural intention measure but that the AMI scores tended to be consistent correlates of the behavioural intentions and the best

correlate of the objective measure of aural comprehension. The same measures were used in the second study with very similar results.

Lalonde (1982) extended this line of research with university students in yet another direction. He conducted a factor analysis of the relationships among 42 measures obtained from 88 students of introductory level French courses. The measures included three language aptitude subtests, eight objective measures of French achievement, three self-ratings of French achievement, nine attitude and motivation measures, and 19 personality scales. Seven factors were obtained and rotated by means of the Varimax solution. The factors were identified as analytic orientation/integrativeness, self-confidence with French, French achievement, evaluation/motivation, conservation, affect, and sociability. The last three factors were defined exclusively by personality variables and are of little relevance to this discussion. One other, analytic orientation/integrativeness was defined by personality variables implied by Krashen's (1981) concept of analytic orientation (e.g., innovation, breadth of interest, complexity) and attitude variables reflecting an integrative approach to the second language community.

The remaining three factors involved aspects of French achievement and/or attitudes and motivation. The self-confidence with French factor was defined by self-report measures of proficiency, motivational indices, and a lack of anxiety associated with French. This pattern is similar to a comparable factor obtained by Clément *et al.* (1977a; 1980) with francophone students except that, in the present case, objective indices of second language achievement were not included. The French achievement factor was defined primarily by the objective measures of French achievement with some contributions from the language aptitude subtests. Finally, the evaluation/motivation factor was composed mostly of measures assessing evaluation of the language learning situation and motivation. Negative loadings were obtained from personality indices of aggression and risk-taking, suggesting some association between these personality attributes and two aspects of the integrative motive.

Overview of the factor analytic investigations

This review of the factor analytic studies concerned with attitudes, motivation and second language proficiency has shown a number of consistencies even though there are obvious differences between the studies. Many of them either produce a unitary integrative motive factor or a set of factors which demonstrate some commonality between the three major components, integrativeness attitudes toward the learning situation and motivation. In virtually all the studies there is a clear link between the motivation to learn the second language and at least one of the two classes of attitude variables. In some studies, furthermore, there is a clear link between achievement in the second language and the total attitudinal/motivational configuration referred to as an integrative motive. In most there is a definite association between the motivational component and second language achievement. It is most important to note, however, that in none of the studies are there overly large correlations (or factorial associations) between measures of second language achievement and attitudes or motivation. Nor should there be. Attitudes and motivation are from

one conceptual domain; language achievement is from another. The general expectation (and result) is that attitudinal/motivational characteristics share some variance in common with achievement in the second language, not all the variance. As a result, it is reasonable to expect the pattern of relationships to be relatively unstable, even though the general relationships are maintained. In those studies where language aptitude is included, it is fairly clear that aptitude and attitudinal/motivational characteristics are relatively independent. That is, there is discriminant validity for both classes of variables. This is an important finding because it emphasizes that heightened levels of motivation and/or positive attitudes do not develop as a result of high levels of aptitude. If this were the case, there would be much more communality between these different classes of variables.

The results of these studies also highlight other factors involved in the notion of the integrative motive. It has been demonstrated repeatedly that the various attitudinal/motivational measures contributing to the definition of the integrative motive can be reliably assessed in many different contexts. These measures, furthermore, relate fairly consistently to the intention to continue language study in many different grades and contexts, and even to the extent to which individuals attempt to use the language. There is, in short, considerable convergent validity for the integrative motive concept. Other findings suggest that motivation possibly mediates the relation between attitudes and second language achievement and that the attitude/motivation measures used in this type of research are more consistent correlates of criteria associated with second language acquisition than at least one other type of measure of attitudes. Finally, although in some studies a dimension of self-confidence in the second language relates more directly to achievement than the integrative motive, it is clear that this self-confidence dimension has attitudinal and motivational components and that it derives from experiences in the other language which involve members of the other language community. There is, therefore, considerable reason for concluding that a concept like the integrative motive is implicated in second language acquisition.

Studies using other measurement and analytic techniques

Despite the conclusions drawn concerning the obvious role of the integrative motive in second language learning, there is evidence to the contrary. At least five other studies have used different measurement procedures and slightly different analytic techniques to investigate the relations of attitudinal/motivational variables to second language proficiency, and these have tended to obtain null or opposite relations. Since these are purported to be instances where the predicted relations of attitudinal/motivational indices with second language achievement were not obtained, it seems advisable to discuss them together.

The first study of a series of four was conducted by Oller, Hudson and Liu (1977). They investigated 44 native speakers of Chinese who were students at two American universities. These students completed a Cloze test of English, four indirect measures of attitude derived from Spolsky (1969), and 16 attitude items. The four indirect measures required subjects to rate themselves, their ideal selves, Chinese and Americans on 30 attributes. The 16 direct attitude

items involved students rating how important each of eight reasons was to them for studying English, and how important each of eight reasons was for them going to the United States to study. Five separate factor analyses were performed, one on each of the indirect attitude measures, and another on the direct questions. Following this, five separate stepwise multiple regression analyses were performed using 'factor scores' as predictors of Cloze test performance.

The factor analysis of reactions to the self resulted in nine factors, and a stepwise multiple regression of factor scores with English proficiency indicated that four of these combined to produce a multiple correlation of .52. These four factors were defined as self as democratic, kind, logical and teachable. Even though each of these contributed significant increments to the multiple correlations, only the first two had significant simple correlations with the criterion. Oller, Hudson and Liu concluded that 'In sum, at the risk of oversimplification, we may say that the more "democratic", "kind", "logical" and "teachable" Ss saw themselves, the better they did on the Cloze test.' (p. 14). Reasons for the inconsistency between the simple correlations and the increments to the multiple correlation are discussed in the next section as well as an explanation as to why it is not meaningful to simply interpret the increments (or beta coefficients) at face value.

Similar analyses were conducted with the other predictors. Reactions to the ideal self produced eight factors, but only two of these were involved in the prediction of Cloze test performance, namely, ideal self as clever and nervous. Reactions to Chinese resulted in nine factors, with five contributing to the multiple correlation of Cloze test scores. These were Chinese as business-like, dependable, intellectual, nervous and competitive. Reactions to Americans generated nine factors, of which four (Americans as helpful, sensitive, happy and successful) combined to predict Cloze test scores. Finally, the factor analysis of responses to the direct attitude items resulted in eight factors, and three of these contributed to the multiple correlation with the Cloze test. These were defined as attitude toward USA, political alignment with West, and personal reasons for coming to USA. Only scores on the first factor correlated significantly with the Cloze test, however, and this correlation was negative. In interpreting these results, Oller, Hudson and Liu state that 'Three of the factors from the direct questions about motivations proved to be significant predictors of the Cloze score, but surprisingly the very factors that we might have expected to be positive were negative' (p. 18).

Two comments seem warranted here. One deals with the definition of the factors, and the other with the assessment of orientations. With respect to the former, the authors conclude that the preceding results indicate that a negative attitude toward Americans is associated with high levels of English proficiency. Examination of the items comprising the attitude factor, however, indicate that the major defining ones are, 'Would consider remaining permanently in the USA', 'Job at home as good as in USA', and 'Had long planned to come to USA'. It is not obvious that these reflect simply attitudes toward the United States. The scores used are factor scores, not scores obtained on a scale developed especially to assess attitudes and demonstrating reliability and validity in many studies.

In summarizing their results, the authors suggest that the indirect measures of attitudes provide better prediction of second language achievement than the direct measures, and that the indirect measures may provide better assessments of integrative and instrumental orientations. Since these conclusions are quite different from those presented in the previous section, they deserve careful consideration. Although Gardner (1980) has discussed a number of conceptual, contextual, and statistical reasons for such discrepancies, attention will be directed here to two specific points. In the first place, it should be emphasized that the 'direct attitude measures' do not assess the majority of the constructs subsumed under the concept of the integrative motive. The study uses only eight items which are similar conceptually to the earlier research, and these are the assessments of integrative and instrumental orientations respectively. As demonstrated earlier, however, these two subscales are not strong correlates of second language proficiency on their own. Furthermore, the items dealing with reasons for travelling to the United States are only tangentially related to the concepts involved in the integrative motive since they do not reflect orientations toward language study, attitudes toward Americans, or motivations for learning English.

A second issue concerns the definition of an integrative orientation on the basis of ratings of self, ideal self, Americans and Chinese. Oller, Hudson and Liu argue that a trait could be defined as positively valued if subjects rate their ideal self on it higher than they do the self; negative traits would be those on which the ideal self is rated lower. They then state that, 'Once the value of a trait is known to be positive or negative, it is possible to compare mean ratings of Americans against mean ratings of Chinese to determine the degree of integrative orientation of the Ss toward Americans' (p. 11). Although such a measure might be construed as a possible index of relative preference for the two groups, or relative attitudes toward the groups, it cannot be viewed necessarily as an index of an integrative orientation toward language study. Such an orientation assumes an interest in learning a second language in order to become psychologically closer to the other community. The above index does not deal with reasons for learning English; it is concerned simply with relative evaluations of the two communities. Not everyone who values another community positively will necessarily want to learn their language!

Considerable attention has been directed toward this study because the instruments and procedures are the same as those used in the following studies. A second study was published by Chihara and Oller (1978) and involved 123 Japanese adults enrolled in basic, intermediate and advanced classes in English as a foreign language in Osaka, Japan. In addition to measures comparable to those used in the previous study, these authors also included other measures of English proficiency as well as tests of language aptitude, self-ratings of proficiency, ratings of parents' proficiency and time spent with English as a foreign language. Analyses of the relations of attitude measures to English proficiency again used multiple correlation with scores on the Cloze test as the criterion. In this instance, reacting to an earlier suggestion from me, they focused attention only on those factor scores which correlated significantly with the Cloze test. In this study, one factor derived from self-ratings (self as helpful) correlated significantly with the Cloze test ($r = .19$), while none of the factors associated with

the ideal self did. Only one of the nine factors derived from ratings of Japanese people correlated with English proficiency (Japanese as cheerful, $r = -.19$). Two factors from the nine derived from evaluations of 'English Speakers' correlated with the Cloze test. They were English as confident ($r = -.27$) and English as modest ($r = -.23$). Finally, for the factors derived from the direct attitude measures, two were related to English skill. One was identified as 'see world' and presumed to reflect a general travel motive, while the other was labelled 'parents' but was defined by the two reasons for travel to an English speaking country which were rated least important, namely to get a degree and because parents wanted it. The correlations with English proficiency were $-.19$ and $-.18$ respectively.

A third study was conducted by Asakawa and Oller (1977) and involved 133 Japanese secondary school students in grades 10 to 12 enrolled in English courses for 50 minutes per day. Using the same analytic procedure as the preceding study, the authors found factor scores from one factor of self-ratings correlated significantly ($r = .21$) with English proficiency. The factor was defined by the scales, 'conservative', 'religious' and 'teachable'. As in the preceding study, none of the ideal self factors correlated significantly with the criterion. One factor based on reactions to Japanese people correlated significantly with the Cloze test ($r = .18$). It was defined chiefly by ratings on 'enthusiastic', 'competitive' and 'friendly'. Two factors derived from ratings of Americans were significant correlates. One was characterized by 'democratic', 'cheerful' and 'enthusiastic' ($r = .19$), and the other by 'religious', 'studious' and 'tactful' ($r = .18$). None of the factors based on the direct questions correlated with the Cloze test.

A fourth study was conducted by Oller, Baca and Vigil (1977) on a sample of 60 Spanish speaking female students who were enrolled in a Job Corps vocational school as part of a programme to assist 'socio-economically disadvantaged young persons'. One factor from ratings of the self (logical, sensitive, democratic and shy) correlated significantly with the English Cloze test ($r = .39$); one derived from the ideal self (democratic, intellectual, prosperous, optimistic, efficient, competent, stable, stylish, logical, trustworthy and *simpatico*) correlated significantly ($r = .30$); one based on Mexicans (calm, conservative, religious, shy, humble and sincere) correlated significantly ($.49$). Two factors for Americans (religious, sensitive, shy, kind and considerate; and optimistic and democratic) correlated significantly with the measure of English proficiency. The correlations were $-.27$ and $.25$ respectively. Finally, only one factor from the direct items was significantly related to the Cloze test ($r = .31$). The authors indicate that it reflects an instrumental orientation. The defining items were 'to pass school exams', 'a required subject in school', and 'to be an educated person'.

A fifth study was conducted by Pierson *et al.* (1980) who tested more than 400 grade 10 students from 11 schools in Hong Kong. Eight of the schools were English-medium, while the latter three taught all subjects, other than English, in Chinese. The general approach was similar to that used by Oller, Hudson and Liu (1977), though slightly different, and somewhat more direct, attitude items were involved. A factor analysis of the 23 direct attitude items revealed 11 factors. A stepwise multiple regression analysis indicated that six of these

contributed to the overall prediction of English achievement, but the simple correlations of these factors with the criterion are not given, making interpretation difficult. The six factors were defined as freedom of language choice, desire to learn English, lack of self-confidence in using English, approbation for using English, discomfort about Chinese speakers using English and English as a mark of education.

These five studies clearly differ from the majority of the factor analytic investigations discussed earlier in that they appear to suggest either that achievement in a second language is not related to attitudinal/motivational characteristics, or that there are negative relationships, or that indirect assessments of attitudes and motivation are superior to direct ones. As indicated earlier, however, there are two ways in which these studies differ from many of the factor analytic ones, and each of these could be responsible for the differences. First, the indices of attitudes and motivation used in these studies are based on factor scores of single items as opposed to scales developed to assess specific attitudes; second, the operational definitions of concepts such as orientation and motivation are considerably different than in most of the factor analytic studies. There are, furthermore, two methodological considerations, one not mentioned until now, and the other briefly alluded to which characterize some of these studies and even some of the ones in the previous sections. These are discussed in the following section.

Methodological considerations

Forming unitary groups from heterogeneous sources All of the studies in this chapter are concerned with correlations between different measures. For example, correlations are computed between a measure of proficiency in the second language and some attitude measure. Regardless of whether or not these correlations are subjected to further analyses (e.g., factor analysis), the question is basically how do differences on the one measure (attitude) relate to those on the other (achievement). Ordinarily when computing correlations we simply enter the raw scores into a computer (or some formula) and compute the correlation. A difficulty arises in this type of research, however, when students are sampled from different classes, or different levels of language instruction, or different schools, or whatever, if these groups differ on one or both of the measures.

Consider a hypothetical example of 10 students with scores on an attitude measure (X) and a measure of French proficiency (Y) like those in Table 4.1(a). The correlation between the two measures is .69 which with eight degrees of freedom is significant. Consider another example of 10 students like those in Table 4.1(b) with scores on the same two tests. Let us assume, however, that these students were drawn from a more advanced language class so that their average scores on the measure of French proficiency were higher; and let us assume for the sake of illustration that their attitudes are comparable. The correlation for these students is .67, which is also significant. Thus, in these two examples there is evidence of a significant positive correlation between attitudes and achievement. Note, however, what happens if we simply combine the scores for the two groups. In this case, the correlation is .29, which with 18 degrees of

Table 4.1 Fictitious data illustrating the relationship between attitudes (X) and language proficiency (Y)

(a) Level I	X	Y	Z _x	Z _y
	30	48	-1.62	-.22
	32	45	-1.10	-1.91
	34	47	-.58	-.79
	34	49	-.58	.34
	36	48	-.05	-.22
	37	47	.21	-.79
	37	50	.21	.90
	39	49	.73	.34
	41	51	1.26	1.46
	42	50	1.52	.90
Mean	36.2	48.4		
Standard deviation	3.82	1.78		
(b) Level II	X	Y	Z _x	Z _y
	30	55	-1.59	-.06
	32	52	-1.07	-1.79
	33	54	-.81	-.64
	35	53	-.29	-1.21
	36	55	-.03	-.06
	36	57	-.03	1.09
	37	56	.23	.52
	39	55	.76	-.06
	41	57	1.28	1.10
	42	57	1.54	1.10
Mean	36.1	55.1		
Standard deviation	3.84	1.73		

freedom isn't even significant, and we would now conclude that there is not a relation among attitudes and achievement.

Which conclusion is correct? In my opinion, this last conclusion is wrong. I would argue that there is a positive correlation between attitudes and achievement, but that when merged the effects of training on the measure of achievement confounds this relationship. If the correlations within each group were averaged (this involves more than just computing the mean of the correlations) or if within class correlations were computed, this positive relation would hold. An alternative procedure which was used by Gardner and Lambert (1959; 1972) and which I have continued to use is to compute the standard scores within each group and use these rather than the raw scores in the computations. This can be demonstrated with the hypothetical example. These standard scores are presented in Table 4.1(a) and 4.1(b), labelled Z_x and Z_y respectively. Using these as the data, a correlation of .68 is obtained which with 18 degrees of freedom is significant. Standardizing the data *within groups* eliminates the confound of groups. Of course, if the groups did not differ on either measure, the standardization procedure would have no effect on the correlation.

As I said above, all of the studies with which I have been concerned have performed this standardization. Where the information has been available and the classes large enough (i.e., greater than 25), this has been performed within each class. If this was not possible, the data within any school for students at the

same level and with the same teacher were standardized as a group, or, if that were not feasible, students were standardized within level at each school. If different levels were involved, standardization was performed within levels as a bare minimum. The basis for the standardization is always indicated in the method section of any article with which I have been actively involved. Many other studies do not state whether this has been done even with students quite heterogeneous with respect to formal training in the second language, and, if it were not done, interpretation is made much more complex, if not impossible.

The important point here is that a number of factors can influence both attitudinal/motivational characteristics and proficiency in a second language, and the hypothesis under investigation is whether or not there is an appreciable correlation between these two different classes of variables. In order to test this hypothesis, it is necessary to control for as many factors as possible, and one meaningful way of doing this is to focus on variation within a class grouping, or any grouping that could control for extraneous factors. As stated above, we try, where possible, to standardize the data within a class, largely because it is meaningful to assume that classes could differ considerably in achievement and/or attitudes because of pedagogical techniques, teacher variables, etc. We would always, of course, standardize within grade level if it were necessary to combine students at different levels simply because age and experience could be variables which would affect scores on our measures. To ignore such necessary controls is to assume that training, pedagogical techniques, teacher personality, etc., do not influence attitudes and/or language achievement, and this is obviously not a reasonable assumption.

Multiple regression as an interpretative tool A number of studies have begun using multiple regression as an interpretative tool and, in some cases, appear to be basing their interpretation on the significance and sign of the regression coefficients. Multiple regression is a procedure for determining weights for a series of predictors to produce the maximum correlation between a weighted sum of these predictors and the criterion of interest. If one ignores problems with respect to the stability of these weights in cross validation (see Nunnally 1978), this technique is useful in developing prediction equations. It is not, however, useful as an interpretative tool, largely because of how the weights are determined. In fact, if the weights (either the raw score regression coefficients or the standardized beta coefficients) are interpreted on their own, erroneous conclusions can be drawn. These weights are regression coefficients applied to predictor variables which have been made independent of each other; thus, to interpret the weights in their own right is wrong.

This is made very clear by Winne (1983), in a context unrelated to second language acquisition, who considered the prediction of reading comprehension on the basis of three predictors, academic affect, physical affect and academic rank in a sample of 181 elementary school children. Academic affect and physical affect were ratings of how the students felt about their academic and physical achievements respectively, while academic rank was their estimate of how they ranked academically relative to their classmates. The multiple correlation was .51, and the standardized regression coefficients were .32, -.25 and .20 for academic affect, physical affect and academic rank respectively. The corresponding correlations with the criterion were .41, -.12, and .40. Winne

Table 4.2 Sample correlation matrix, beta coefficients and multiple correlation

(a) Example I				
	1	2	3	
1	1.00	.45	.35	$R_{1\ 23} = \sqrt{\beta_2 r_{12} + \beta_3 r_{13}}$ $= .453$
2		1.00	.70	
3			1.00	
$\beta_2 = \frac{r_{12} - r_{13}r_{23}}{1 - r_{23}^2} = .402$				
$\beta_3 = \frac{r_{13} - r_{12}r_{23}}{1 - r_{23}^2} = .069$				
(b) Example II				
	1	2	3	
1	1.00	.45	.35	$R_{1\ 23} = .570$
2		1.00	.00	
3			1.00	
$\beta_2 = .450$				
$\beta_3 = .350$				

also determined scores on each predictor with the effects of the other predictors removed (what he termed residualized predictors) and computed their correlations with reading comprehension. These were .25, -.24, and .16 respectively. That is, the correlations of the predictors once they were made independent of each other correlated very differently with the criterion than the original predictors, and it is these residualized predictors which are being referred to if regression coefficients are interpreted. Furthermore, although the original academic affect scores correlated substantially (.61) with another measure of academic affect, residualized academic affect had a much lower correlation (.36). This changed convergent validity was not characteristic of the physical affect measure. The correlations with an external measure of physical affect were .73 and .74, indicating that not all residualized variables are conceptually distinct from the original variables. The point is, however, that they can be.

Problems inherent in attempting to interpret the results of a multiple regression analysis can be appreciated further by considering the following fictitious example in Table 4.2(a) where the correlations among the three variables are presented along with the formulae and values for the multiple correlation and the beta coefficients. From these data, we have the standardized regression equation:

$$Z'_1 = \beta_2 Z_2 + \beta_3 Z_3$$

$$Z'_1 = .402Z_2 + .069Z_3$$

If one were to attempt to interpret these beta coefficients, they might conclude that variable Z_2 is a much better predictor of the criterion than Z_3 because β_2 is larger than β_3 . In fact, tests of significance would reveal that the beta coefficient associated with Z_3 is not even significant [$F(1,100) = .302$, ns]. This test indicates, however, that adding Z_3 to a prediction equation made up only of variable Z_2 does not significantly improve prediction. On the other hand, adding Z_2 to an equation made up only of Z_3 does improve prediction

significantly [$F(1,100) = 10.363, p < .01$]. The point is that the weight of .402 is applied to that part of Z_2 which is independent of Z_3 , and the weight of .069 is applied to that part of Z_3 which is independent of Z_2 . Both variable 2 and 3 are significant predictors of the criterion, but variable 2 is not a significantly better predictor than variable 3 (Hotelling's (1940) $t(100) = 1.45, ns$).

In order to see how the relationship among predictors influences the magnitude of the beta coefficients, we can consider the example in Table 4.2(b) where the predictors are now independent. The correlations between the criterion and the two predictors have not changed, but now $\beta_2 = .45$ and $\beta_3 = .35$ (i.e., the original simple correlations). The multiple correlation when the two predictors are independent is, in fact, nothing more than the square root of the sum of the squared simple correlations. In this example, Z_3 adds significantly to prediction over Z_2 alone [$F(1,100) = 18.15, p < .01$], and Z_2 significantly improves prediction over Z_3 alone [$F(1,100) = 30.00, p < .01$].

A test of the significance between the two correlations yields a value of $t = .861$ at 100 degrees of freedom. Thus, in both examples, although there is no significant difference in the relative predictability of the two variables, the conclusions derived from attempting to interpret the regression coefficients from the multiple correlation analysis are vastly different depending simply upon the correlation between the two predictors.

This analysis emphasizes the problems inherent in trying to interpret regression coefficients derived from a multiple correlation analysis. Although some researchers interpret them in much the same way as one would interpret factor loadings, their meaning is quite different. As a consequence, interpretative conclusions derived from studies using this technique should be viewed with caution. It is more meaningful to focus attention directly on the correlations of each variable with the criterion. These correlations are clear measures of linear association, and as long as one has confidence in the measures involved their interpretation is fairly straight forward.

Summary and conclusions

Two different research traditions were reviewed and considered in this chapter. In the first, attention was directed toward factor analytic investigations of measures of attitudes, motivation and second language achievement, including in many instances indices of language aptitude. The review took an historical perspective, beginning with the early multivariate studies, continuing with later studies involving elementary and secondary school students, primarily (but not exclusively) English speaking Canadian students learning French as a second language, extending this to later studies involving other languages and finally considering studies of university level language students. In the majority of cases, the findings indicate that there are very meaningful relations among attitudes toward the second language community, the language learning context, and motivational attributes. It seems reasonable, based on this large and varied data base, to hypothesize that this configuration reflects a motivation to learn the second language which is related to, and supported by, attitudes. To provide a summary description, this total configuration is referred to as an integrative motive, which is defined as a motivation to learn a second

language because of positive feelings toward the community that speaks that language.

The results of these studies also indicate that this motivation is associated with an interest in continued language study as well as proficiency in the language. Not all studies demonstrate these relations, however. In some cases there is a clear association among attitudes, motivation and achievement. In others the motivational characteristics are the major correlates of proficiency, but the motivational characteristics also correlate with the attitude variables. In still other studies there is not a clear association between the attitudinal/motivational indices and second language achievement. In these cases, however, there are analytic reasons for questioning whether the null findings are necessarily accurate. Two major reasons cited were the use of unreliable and non-valid measures (often single items) and the formation of single groups of subjects from heterogeneous sources rather than focusing attention on relationships among individuals from common language learning contexts. It is, of course, possible that the relationships will not exist in all samples, if for no other reason than sampling variability, but the bulk of the evidence presented here suggests that there are very real relationships.

The second class of multivariate studies makes use of other procedures, primarily multiple regression, and uses either single item measures or factor scores as the attitudinal/motivational indices. In general these studies find little support for the proposition that attitudes and motivation are related to second language proficiency. My review was critical, however, pointing out the general unreliability and undemonstrated validity of these measures, the inconsistency of the results, and the difficulty of interpreting the regression weights in multiple regression studies. Some of these studies also appear to share the problem described above with respect to some factor analytic studies that subjects differing in language experiences and training have often been treated as a homogeneous sample. In a subsequent section on methodological considerations I discussed the potential problems associated with forming unitary groups from heterogeneous sources and with attempting to interpret regression coefficients. This discussion was somewhat detailed and used examples to indicate the possible difficulties involved so that researchers will consider their implications. Not all studies suffer from the problems illustrated, but such difficulties can occur.

Based on the literature review, and considering all the issues involved, it seems clear that achievement in a second language is influenced by attitudinal/motivational characteristics. Postulating that achievement in a second language is promoted by an integrative motive is not tantamount to saying that this is the only cause or predictor. Undoubtedly many factors operate in the development of second language proficiency. This is only one – but it and language aptitude are the only two individual differences which have been well documented to date as being implicated in the language learning process.

5

Second language acquisition: focus on attitude change

Overview

This chapter directs attention to a different research question associated with the relation between attitudinal/motivational variables and second language acquisition than those discussed earlier. The question posed here is that if attitudes and motivation influence how well someone learns a second language, is it not equally possible that the experience of learning a second language influences attitudes and motivation?

The belief that language training can influence attitudes and motivation is a common one. Gardner (1979), for example, proposed that there are both linguistic and non-linguistic outcomes of language study, defining non-linguistic outcomes in terms of such things as '...favourable attitudes toward the other cultural community, a general appreciation of other cultures, interest in further language study, etc' (p. 199). Similarly, attitude change is viewed by Lambert (1963b) as a direct consequence of becoming proficient in a second language. He argues that '...the more proficient one becomes in a second language the more he may find that his place in his original membership group is modified at the same time as the other linguistic-cultural group becomes something more than a reference group for him. Depending upon the compatibility of the two cultures, he may experience feelings of chagrin or regret as he loses ties in one group, mixed with the fearful anticipation of entering a relatively new group' (p. 114). Expanding on the bilingual's contact with two communities, Lambert (1967, 106) suggests that, 'The bilingual child in other words may well start life with the enormous advantage of having a more open, receptive mind about himself and other people.'

Many second language programmes have as one objective the modification of language attitudes, and investigations have been conducted to assess the nature of such change. Although initially, the design for such research seems relatively straightforward, it soon becomes apparent that it is a complex issue. The research question simply asks whether or not language training results in changes in attitudes; however, when conducting this research it is important to determine what aspects of the training are important and what attitudes should be investigated. In general, the research can be grouped rather arbitrarily into two categories – those studies focusing on the effects primarily of language training, and those directed toward the effects of contact with the other community. Obviously, however, many investigations consider both aspects. We will focus here on a continuum varying from relatively little emphasis on

training to considerable emphasis and will consider the research under three categories, bicultural excursion programmes, regular language courses, and intensive language programmes.

Bicultural excursion programmes

Bicultural excursion programmes refer to relatively short term interactions with members of the other language community in their own social environment with the express purpose of developing positive attitudes toward that group. Generally there is little, if any, instruction in the second language.

There has been considerable research concerned with the effects of interethnic contact on attitudes (for early reviews see Amir 1976; Ashmore 1970, and Harding *et al.* 1969). In an annotated bibliography of approximately 600 articles, however, Desrochers and Clément (1979) report few which involved excursions where the subjects visited a community where another language was spoken. In those studies which have been conducted, the results have not always been consistent, though they would appear to suggest that under certain circumstances positive attitude change occurs.

Two studies have compared the attitudes of participants after an excursion with those before an excursion. Leonard (1964) compared university students before and after an excursion and found no significant change in attitudes. Comparable results were obtained by Hanna and Smith (1979) in their investigation of a bilingual exchange programme involving school students ranging in age from 12 to 17. They present data based on questionnaire-elicited attitudes toward French (or English) Canadians from a sample of 132 students before the excursion and another 132 students after. The students participated in a four-week exchange programme in which they lived in each other's homes for two weeks. No differences for either language group were obtained between the pre-excursion and post-excursion groups. In addition, Hanna and Smith also describe the responses of 154 students to three open-ended questions from a questionnaire administered at the end of the excursion. Their analysis revealed very little in the way of reported changes in attitudes toward the other language community. Finally, they also describe the results of interviews with 16 students from which they conclude that generalized attitudes were of little importance to the students. They summarize their findings by stating that, 'It seems reasonable to conclude from the data available at this stage that generalized positive/negative attitudes toward the other language group are not of great significance to exchange participants.' (p. 52). They go on further, however, to suggest that, '...the exchanges did appear to have a positive effect on the attitudes of a minority of students' (p. 52).

Some significant attitude change as a result of a four-day excursion to Quebec City by grade eight anglophone students was reported by Gardner *et al.* (1974). These researchers tested a group of students both before and after the excursion on attitude measures and obtained only one significant effect, an increase in favourable attitudes toward French Canadians. There was also a tendency ($p < .10$) for students to show an increased interest in learning French for integrative reasons. Although the effects were not pronounced, these data do

suggest that exposure to the other community can promote favourable attitude change.

It is unlikely, however, that simply partaking in an excursion programme will produce positive attitudes. Many researchers suggest that mere interaction is insufficient to produce attitude change; it is the nature of this interaction which is important (Amir 1976). Hofman and Zak (1969) demonstrated this in their study. They assessed subjects' attitudes before and after a five-week summer camp in Israel and in addition had the camp counsellors assess the amount of contact each student had with members of the community. They found that high contact subjects increased significantly their favourable attitudes toward Jewishness and Israel; low contact subjects, on the other hand, demonstrated less favourable changes in attitudes toward Jewishness. These findings suggest that an important mediating variable is the amount and quite possibly the nature of the interaction individuals have with the other community. This type of design has also been used in other studies with comparable results.

Clément, Gardner and Smythe (1977b) used a similar strategy in their investigation of the effects of a four-day excursion to Quebec City by grade eight anglophone students. These students were tested approximately two weeks before and four weeks after the excursion. They were classified as low contact or high contact on the basis of self-ratings made on the post-test of the extent to which they tried to use French while in Quebec. This study also included a control group of classmates who did not take part in the excursion. After the excursion, the three groups differed from each other predictably on attitudes toward French Canadians and attitudes toward learning French even after initial attitudinal differences were partialled out. The high contact group also differed significantly from the other two groups on measures of interest in foreign languages, instrumental and integrative orientations, reported parental encouragement to learn French, attitudes toward European French people, motivational intensity to learn French and evaluation and perceived utility of the French course. Since these were differences obtained on the post-test, once any differences existing on the pre-test were partialled out these results suggest that this brief excursion produced predictable and desirable attitudinal changes particularly among those students who actively sought out opportunities to use what French they knew.

Desrochers and Gardner (1981) conducted a very similar study but identified contact in two ways, one involving a self-report measure obtained on the post-test and the other based on peer ratings made each evening during the excursion. A control group of classmates who did not take part in the excursion was also included. When contact was defined in terms of self-ratings, the high contact group was significantly higher than the two other groups on the degree of integrativeness, reported parental encouragement to learn French and behavioural intention to speak French on the post-test adjusted for any pre-test differences. They were also higher than the control group on attitudes toward French Canadians, attitudes toward learning French, desire to learn French, and behavioural intention to interact with French Canadians. When contact was defined in terms of peer-ratings, the high contact group was significantly higher than the two other groups on the measure of attitudes toward French Canadians. In addition, the high contact group expressed significantly more

favourable attitudes toward learning French and significantly less French use anxiety than the control group. In comparison with both contact groups, the control group also demonstrated significantly more French use anxiety, less desire to learn French, and less intention to both speak French and interact with French speaking people. As before, these analyses were based on post-excursion scores adjusted for any pre-excursion differences so that they reflect the effects of the excursion itself.

The pattern of results differed slightly depending upon the perspective used to define contact, but in both cases it is clear that visiting the other community and actively trying to use the language promotes a positive change in attitudes, primarily those directly involving the other community. These results differ considerably from those of earlier studies and indicate the importance of considering the amount of contact and of employing a control group. The studies do not permit any analysis of the nature of the contact, but it seems quite likely that the important factor in determining positive attitude change is not the amount of contact in and of itself but quite probably the experiences themselves. It is a reasonable assumption that those reporting high use of French and those perceived by their peers as using French had pleasant experiences, and it is these positive encounters which promote positive changes in attitude. If the experiences had not been positive, it is quite likely that the amount of contact reported or perceived would have been low.

In an interesting variation of a bicultural excursion programme, Cziko and Lambert (1976) investigated English speaking students who attended a French language school for a one day period on eight different occasions throughout a school term. They also investigated a control group, and all students completed an attitude battery before and after the excursion. Those who visited the other school were divided into high contact and low contact groups on the basis of how much they reported the experience gave them the opportunity to use their French. Only one measure, attitudes toward learning French, resulted in a significant interaction between time of testing and group. There was a significant decrease in attitudes toward learning French for the low contact group from the beginning to the end of the study, but no significant changes for either the high contact or the control group.

Significant differences were obtained between pre-test and post-test on the measures of attitudes toward French Canadians, instrumental and integrative orientation, and attitudes toward the European French. In each instance the means decreased significantly, suggesting that taking the test twice can produce an apparent deterioration in attitudes which are nonetheless independent of the different educational experiences. No other main effects or interactions involving time were significant though Cziko and Lambert (1976, 240) suggest that the experience may have had 'at least some positive attitudinal/motivational effects on the students of the high participation group'. They point out that the high participation (contact) group showed a decrease over time in both ethnocentrism and French class anxiety and an increase in interest in foreign languages and motivational intensity, while the other two groups revealed either no changes or changes in the opposite direction. As before, these results demonstrate the importance of considering the amount of contact in any excursion programme and of including a control group.

The bulk of the research which has focused on the effects of interethnic contact in the context of language training demonstrates that where actual contact is considered the experience does promote positive attitudinal/motivational change. This, despite the fact that much of the contact is for a relatively short period of time. The two studies demonstrating no effects involved much longer periods of time, did not consider the amount or nature of the contact and used only a few attitude measures. All of these factors could account for the lack of findings. With increased exposure to the other community, it is quite possible that attitudes which are initially improved drift back close to their original level. This could be particularly true if no attention is directed to the amount of direct interaction with the other community. If actual positive contact improves attitudes and negative experiences depress them, the net effect, particularly over an extended period of time, might appear to be no change. Wrightsman (1972) argues that, 'the mere frequency of contact is of no import; the nature of the contact. . . is the determinant' (p. 321), and this would seem to be the most important feature to be considered in any investigation of bicultural experiences. Although the studies reviewed here have focused on 'amount of contact', their indices of such contact have all involved attempts at using the second language, and it seems quite likely that those trying to use the language often would have been having positive reactions to their attempts.

Those studies obtaining positive results also differ from those obtaining no effects in terms of the number of attitudes assessed. This methodological issue could be very important. If subjects are presented with only a few attitude items all obviously directly related to the bicultural excursion, it is easy for them to determine the purpose of the assessment and answer accordingly. If many items are presented in a jumbled order and referring to many related but different issues, it is much more difficult for subjects to determine which items go together for the purposes of scoring, and it is more likely that they will respond to each item on its own. That this is the case is suggested by the results of Cziko and Lambert (1976) which showed a tendency for attitudes in general to become less positive on the second testing. This same phenomenon occurred in the Clément, Gardner and Smythe (1977b), Desrochers and Gardner (1981), and Gardner *et al.* (1974) studies and, rather than reflecting a general deterioration in attitudes, quite probably reflects a dissatisfaction with completing a lengthy attitude battery for a second time. Under these conditions those experiencing the frequent and presumably pleasant contact express the relatively more favourable attitudes indicating the positive effects of inter-ethnic contact in the context of language training.

Regular language courses

Presumably the main purpose of language courses offered in the context of the regular school curriculum is to develop some knowledge of, and skill in, the second language, though many teachers express concern for non-linguistic objectives such as attitude change. At least two authors suggest that any attitude changes are in part the result of the particular demands placed on students by the second language course because of their own cultural beliefs and expectations. Smith (1971) argues, for example, that on the first day, a student walking

through the language classroom door arrives with a set of attitudes, most of which are negative. The student may feel that the course is irrelevant, boring, or difficult. Depending upon the student's experiences, such attitudes must either change or be reinforced. A similar but more general and socially significant interpretation has been made by Turner (1974). He argues that the language requirement, in the United States at least, presents many students with a particular conflict situation and that they have difficulty learning a second language because of a number of attitudinal factors. These include negative attitudes towards immigrants, American feelings of superiority, and the American melting-pot ideology which favours integration into the English speaking community. Such attitudes negate the importance of second language acquisition and are automatically made salient in the language learning context. As a result, even mere exposure to the second language gives rise to potential attitude change or at least reinforcement.

Given that there is reason to expect possible attitude change as a result of second language training, the question still remains as to the nature of this change. Both Smith (1971) and Turner (1974) suggest that there is a good possibility that negative rather than positive attitude change may be the more common, and such speculations are supported by research findings. Investigations of English school students by both Pritchard (1935) and Jordan (1941) reported a deterioration of attitudes toward the second language as a result of continued study. Hernick and Kennedy (1968) indicate how such negative attitude change may result and propose a possible counteraction. They argue that forcing students to learn a second language can rapidly create feelings of failure and that such feelings could generalize to unfavourable attitudes toward learning the language. As a potential cure, they recommend streaming students and tailoring programmes to their level of development, thus reducing potential failures.

Jones (1966) also reports a deterioration of language attitudes and suggests ways of counteracting them which expand upon those advocated by Hernick and Kennedy. Jones analysed reasons given for and against learning Welsh by students in four different grade levels. There were four major types of reasons favourable to learning Welsh: 'interest', 'utility', 'national' and 'proficiency'. Interest was the most common reason given in the first three years but was of relative unimportance in the fourth year. Utility, on the other hand, was the second most important reason in the first three years and by far the most important in the fourth year. Among those who didn't like Welsh, its difficulty, lack of utility, and lack of interest were the three major reasons, with lack of utility gaining importance in the fourth year. On the basis of these results, Jones suggests that teachers should adopt an interesting method of teaching throughout the course of study, that they should emphasize the utilitarian and cultural values of language study, and that the course should be structured so that pupils acquire a sense of progress in their language development.

Evidence presented by Riestra and Johnson (1964), on the other hand, has been used to suggest that language training promotes favourable attitudes. They compared two groups of students, matched in terms of sex, age and intelligence, but differing in that one group had studied Spanish for two years. Those students who had studied Spanish demonstrated significantly more

favourable attitudes toward Spanish speaking people than those who had not studied Spanish, and the groups did not differ in attitudes toward non-Spanish speaking people. One possible interpretation which could be made from these findings is that learning a second language promotes change in attitudes towards communities who speak that language but that such attitudes do not generalize to other ethnic communities. Of course there are a number of other factors which might account for this difference. The groups may have differed in their attitudes even before they began their language training, and in fact such attitudinal differences may explain why some students studied Spanish and some did not. This same type of explanation would explain the results obtained by Gardner *et al.* (1983). They contrasted students in an introductory French course with those in an intermediate course and found that, in addition to being more proficient in French, the intermediate students held more favourable attitudes towards factors directly concerned with the language.

Some research has been directed toward investigating aspects of the programme or additions to the regular programme to determine their influence on attitudinal/motivational characteristics. Halpern *et al.* (1976) investigated the effects of instruction time on attitudes toward French Canadians and toward learning French. They contrasted samples of students in regular programmes with those in extended programmes and found no effects for students in grades one and two but some effects for students in grades five to seven which they found difficult to interpret. In this regard they state that '...the attitudes of extended French students do tend to become more favorable than those of students who do not enrol in the program, but this often results because the attitude of the former remain as they were while those of the latter become less favorable' (p. 71). Despite their difficulties in interpretation, it is clear that older students in extended French programmes did develop somewhat more positive attitudes.

Stennett and Earl (1982) also demonstrated improved attitudes among older students as a result of increased instruction in French. Rather than comparing different classes selected for differential treatment, they capitalized on a change being made throughout the entire system over a three year period. Over that time, instruction in grades seven and eight was changed from 20 minutes per day in year one (for a total of 120 hours of instruction) to 20 minutes per day for grade seven and 40 minutes per day for grade eight in year two (180 hours of instruction) to 40 minutes per day for both grades in year three (240 hours of instruction). Samples of 200–300 grade eight students were tested on a number of French achievement measures and three attitude tests at the end of their school year. In addition to demonstrating the expected improvement on French achievement, the results demonstrated a significant increase in attitudes toward French Canadians and a significant decrease in French class anxiety over the three year period. No effects were evident on the measure of attitudes toward learning French.

In both the Halpern *et al.* (1976) and Stennett and Earl (1982) studies, it is not clear, of course, what is responsible for the attitude change identified. It could be the increased instructional time, or the varied activities that the additional time permitted the teachers to introduce into the classroom. It seems clear,

however, that at least for older students some very real attitude changes do result.

McInnis (1976) has provided some evidence to suggest that some classroom innovations can promote attitude change particularly among young students. He investigated the effects of a francobus programme on the attitudes of students in grades two to eight. This programme involved a group of six actor-teachers who toured schools in a gaily decorated bus on a scheduled basis only two or three times a year. They visited the classrooms in the morning to sing, dance and teach the children French, and in the afternoon they held a theatre-in-the-round consisting of plays, puppet presentations, and group dancing and singing, all in French. The emphasis was clearly on generating positive affect. An assessment of attitude change resulting from the francobus in the first year of the programme yielded ambiguous results. One study used different groups to assess pre- and post-test attitudes and demonstrated significant positive gains in attitudes. A second one compared the same students on pre-test and post-test and obtained no significant effects. In the second year of the programme, pre- and post-test assessments were based on different students as in the first study described above. Significant positive 'changes' were obtained with students in grades two to four, but inconclusive results were obtained with the older students. It seems possible that the programme may have been successful in modifying attitudes, particularly for those students who clearly enjoyed it. What was lacking in this study was an index of participation like that used in the excursion programmes. This factor may have been important since it is quite possible that attitudinal change would have taken place only in those students who actively took part in the programme.

Other innovations have also been studied to determine their effects on attitudes. Gardner, Ginsberg and Smythe (1976) investigated the effects of self-instruction versus traditional instruction among students in a first year university French programme. If, as Hernick and Kennedy (1968) suggest, negative attitudes result because students experience feelings of failure if they cannot develop at their own rate, this comparison should demonstrate attitude differences at the end of the term. The two programmes were comparable, employing the same text, drills, and other material and requiring that by the end of term a designated number of units had to be completed. They differed in that students in the traditional programme met with the instructor for an hour three times each week and also took standard examinations. Students in the self-instruction programme made use of the language laboratory at their own times, self-administered tests to ensure mastery before continuing to a new unit, met with instructors as required and attended one-hour weekly meetings in small groups to practise their French skills. This programme is described in more detail by Carter and Ginsberg (1976).

This study investigated a total of 30 attitudinal-motivational measures administered before and after the course. Two different sets of analyses were conducted involving the post-test scores. As has been noted previously, there was a general tendency (significant for 14 measures) for attitudes to be less favourable on the post-test than the pre-test. More importantly, three measures showed differential changes over time for the self-instruction and traditional courses. Students in the self-instruction programme showed relative stability

from pre-test to post-test in need achievement, attitudes toward learning French and behavioural intention to continue studying French, while students in the traditional programme demonstrated appreciable declines on all three attributes. The implication is, therefore, that self-paced instruction has a relatively positive effect on these characteristics. In a subsequent analysis, comparisons were made on post-test scores between three groups of students, one the control group, and the other two from the self-instruction programme. These last two groups differed in that one had completed the pre-test initially and one had not. The results demonstrated effects of self-instruction on four variables in that the two self-instruction groups were significantly higher than the control group on need achievement, motivational intensity, desire to learn French, and behavioural intention to continue studying French. On one other measure, attitudes toward French Canadians, those students in the self-instruction group who had also completed the pre-test scored significantly higher than the other two groups.

This pattern raises the possibility that in such studies students who first complete an attitude scale and then take part in a special programme may be sensitized to consider their attitudes toward the French community and thus demonstrate more favourable attitudes on the post-test than either students in the same programme who do not have the prior experience with the attitude scale or students with that experience but registered in a traditional language class. This latter conclusion might be highly speculative, but regardless, it is still clear that permitting students to pace themselves produces more relative positive attitude change than that typically obtained in a traditional programme. The mechanism underlying such change is not, however, clear

One possibility is that greater feelings of accomplishment promote relatively more positive attitudes. This is clearly the argument put forth by Burstall (1975), and one which would be supported by Hernick and Kennedy (1968). The only data directly relevant to this proposition was presented by Burstall *et al.* (1974). They compared partial correlations of first year French achievement scores with second year attitude scores (partialling out first year attitude scores) with partial correlations of first year attitude scores with second year achievement scores (partialling out first year achievement). They found that the first set of partial correlations were greater than the second, suggesting to them that achievement influences attitudes more than attitudes influence achievement. This type of analysis is a version of cross-lagged panel analysis (see, for example, Kenny 1979) where causation is inferred on the basis of differences between correlations of variables assessed at different times. Rogosa (1980) has raised a number of criticisms of this technique, including the very rigorous assumptions necessary for its use. Many of these would also appear applicable to the technique where partial correlations are compared. In addition, the interpretation of residualized variables (which are involved in partial correlations) is also very difficult (see, for example, Winne 1983). What is required, therefore, is a study which investigates directly the effects of differential success on attitudes. The adage 'nothing succeeds like success' (Burstall *et al.* 1974) would be supported if those achieving a high level of success demonstrated increased favourability of attitudes while those doing less well decreased in their attitudes.

Data are available to test this hypothesis. Data from 15 samples of students

drawn from various regions in Canada in two successive years were used to determine in each case whether or not attitude scores were influenced by the relative level of achievement attained by the student. This was assessed by making use of 2×2 analyses of variance where the two factors were 'level of achievement' (high versus low) determined by a median split in French grades at the end of the first year, and 'time of testing' (year one versus year two). Grades in French were used to identify levels of achievement because it was felt that students would be more aware of their grades in the French class than their performance on the various objective tests of French achievement administered in the study and, furthermore, that the grades would reflect more adequately than results on objective tests their personal feelings of success with respect to the French programme. In this way, the analyses performed test the generalization made by Hernick and Kennedy (1968).

The dependent variables used in this study were composite scores. Gardner, Clément, Smythe and Smythe (1979) have proposed that scores on the scales of the attitude/motivation test battery can be summed to form three composite indices. Integrativeness refers to the sum of scores on three scales, attitudes toward French Canadians, ratings of an integrative orientation, interest in foreign languages, and thus reflects attitudinal reactions toward the cultural aspects of language learning. Motivation is the total on three scales, motivational intensity, desire to learn French and attitudes toward learning French; it summarizes the properties (effort, want and affective reactions) involved in the motivation to learn another language. Attitudes toward the learning situation refers to evaluative reactions toward the learning environment; it is the sum of evaluations of the French teacher and the French course. These three scores

Table 5.1 Summary of multivariate F-ratios for the three composite scores

Area	Grade	Run	Hi/Lo	Yr1/Yr2	Interaction
1	7	1	7.05***	1.93	1.11
		2	10.39***	2.47*	4.85***
	8	1	4.34***	2.95**	.63
		2	5.71***	9.22***	1.86
	9		3.23**	1.15	1.25
	10		4.35***	4.42***	1.92
2	11		3.54**	5.17***	2.90**
	7	1	2.53*	2.72**	.02
		2	2.32*	3.04**	.61
		3	2.95**	1.18	3.06**
	8		1.76	7.74***	1.14
	9		4.60***	6.02***	1.60
3	10		1.11	.93	.47
	11		4.50***	11.02***	.75
	9		5.31***	8.61***	1.31
			.87	3.91**	.92
			.10	2.41*	.62
	10		2.26	2.39*	1.83
4	11		1.29	2.79**	.41

*** $p < 0.01$

** $p < 0.05$

* $p < 0.10$

were analysed in the present case to assess the effects of differential success on attitudes.

Table 5.1 (above) presents the summaries of the multivariate F-ratios (Hotelling's T^2 criterion) for each factor for the three composite scores, integrativeness, motivation and attitudes towards the learning situation. In three areas, it was not possible to conduct multivariate analyses of variance because the sample size was too great given the computer limitations. In these three areas, the total sample was broken down into a series of random samples and analyses performed on these smaller segments. These are indicated in Table 5.1 by reference to run one, run two, etc. Inspection of Table 5.1 will reveal that significant ($p < .10$) effects were obtained for 13 of the 19 analyses with respect to the levels of achievement and for 15 of the 19 analyses with respect to year of testing. In only three cases, however, was there any significant interaction between levels of achievement and year of testing.

The significant multivariate main effects obtained on most samples with respect to level of achievement and year of testing suggest that these factors are related to attitudes, and the nature of these effects will be discussed in the next paragraphs. As an incidental point, it should be noted, however, that the differences with respect to levels of achievement are clearly not characteristic of students in grade 10 in three areas and in grade 11 in two areas. Whether this represents an area difference or a grade difference cannot be ascertained from these data.

Table 5.2(a) F-ratios and means for comparisons of low versus high achievement groups for the three composite scores

Lo(1)/Hi(2)		Integrativeness			Motivation			Attitudes toward the learning situation		
Area	Grade	F	\bar{x}_1	\bar{x}_2	F	\bar{x}_1	\bar{x}_2	F	\bar{x}_1	\bar{x}_2
1	7	15.72***	38.10	43.76	47.30***	27.32	35.29	20.72***	52.72	60.10
	8	11.76***	38.67	42.99	28.99***	26.41	32.39	13.47***	48.88	55.14
	9	9.08***	39.61	43.02	7.43***	28.38	31.93	3.08*	51.40	54.10
	10	2.38	43.84	45.79	8.50***	32.25	35.68	.04	57.37	57.74
	11	.57	43.90	45.15	7.72***	30.77	35.38	8.21***	52.29	59.92
2	7	11.51***	35.46	40.67	7.82***	24.46	28.46	8.53***	42.38	49.99
	8	.48	41.71	42.95	3.54*	28.76	32.34	3.12*	51.36	56.76
	9	2.52	41.72	43.80	11.51***	29.85	33.93	4.06**	53.39	57.30
	10	3.24*	43.73	46.09	1.05	32.30	33.60	.76	55.47	57.07
	11	5.44**	43.74	46.96	12.41***	30.51	35.35	3.13*	52.97	57.06
3	9	1.34	41.81	44.19	6.48***	31.17	35.25	13.14***	49.85	59.08
	10	2.32	40.83	43.83	2.53	31.26	33.50	1.34	52.66	55.33
	11	.25	42.88	43.77	.04	32.98	33.27	.01	53.79	54.04
4	10	3.03*	38.80	43.00	5.02**	25.03	29.80	.27	46.40	48.30
	11	.27	42.50	43.48	2.19	30.11	32.73	1.44	49.77	53.59

*** $p < .01$
 ** $p < .05$
 * $p < .10$

The notion that 'nothing succeeds like success' (Burstall *et al.* 1974) would suggest that students who achieve a high level of proficiency in the second language experience rewards and consequently develop favourable attitudes; students who are relatively unsuccessful, on the other hand, should develop less positive attitudes. The general absence of interactions between level of achievement and year of testing indicates, however, that whatever changes do take place from one year to the next are fairly common for both the successful and unsuccessful student. Such results seriously question the validity of the notion 'nothing succeeds like success' as it applies to the language acquisition situation.

Table 5.2 presents a summary of the univariate F-ratios and the means for the three composite scores, integrativeness, motivation, and attitudes toward the learning situation, for the two main effects, level of achievement and time of testing. Since the multivariate analyses offered little support for assuming an interaction between these two factors, it is unwarranted to interpret any univariate tests of this interaction since Hummel and Sligo (1971) have demonstrated that in the absence of significant multivariate effects significant univariate tests probably reflect type one errors. The results presented in Table 5.2(a) and (b) are those for the 15 total grade samples in the four regions. They indicate that for both level of achievement and time of testing significant effects were most pronounced for the measure of motivation, next for attitudes toward

Table 5.2(b) F-ratios and means for comparisons of year one versus year two testing for the three composite scores

Year one/ Year two		Integrativeness			Motivation			Attitudes toward the learning situation		
Area	Grade	F	\bar{x}_1	\bar{x}_2	F	\bar{x}_1	\bar{x}_2	F	\bar{x}_1	\bar{x}_2
1	7	.08	41.04	40.82	3.22*	31.82	30.79	9.43***	58.24	54.58
	8	4.00*	41.39	40.27	10.46***	30.44	28.37	16.66***	54.01	50.19
	9	.27	41.35	41.07	3.09*	30.49	29.62	.02	52.68	52.82
	10	4.28**	45.35	44.28	12.92***	34.82	33.10	2.07	58.57	56.53
	11	.08	44.63	44.42	8.49***	34.19	31.96	4.81**	57.63	54.58
2	7	5.82**	38.97	37.15	12.71***	27.51	25.40	6.58**	48.04	44.33
	8	6.32***	43.41	41.24	9.98***	31.88	29.22	22.98***	57.45	50.67
	9	8.81***	43.78	41.74	16.90***	33.11	30.67	6.18**	56.78	53.91
	10	.08	44.80	45.01	.58	33.19	32.71	.42	55.77	56.77
	11	4.54**	46.03	44.66	19.21***	34.06	31.81	26.86***	58.44	51.59
3	9	7.60***	44.15	41.85	22.05***	35.13	31.29	19.88***	58.58	50.35
	10	1.52	41.93	42.72	3.92**	32.88	31.88	3.26*	55.31	52.67
	11	.13	43.21	43.44	2.61	33.62	32.63	.07	54.17	53.65
4	10	.99	40.30	41.50	3.07*	28.47	26.37	3.09*	49.23	45.47
	11	.07	43.09	42.89	3.66*	32.18	30.66	1.09	50.84	52.52

*** $p < .01$

** $p < .05$

* $p < .10$

the learning situation, and least for integrativeness. Significant ($p < .10$) effects were obtained for level of achievement in 11 analyses of motivation, nine of attitudes toward the learning situation, and seven of integrativeness (see Table 5.2(a)). Inspection of the means, however, reveals that in all 15 analyses the students with low French grades obtained lower means on motivation, attitudes toward the learning situation and integrativeness than did students with high French grades. This, of course, would be expected given the consistent findings with respect to the relationship of such attitudinal variables to achievement. In the present instance, therefore, even though not all contrasts were significant, the consistency over 15 samples is overwhelming evidence of a relationship between the attitudinal variables and achievement in the second language. Of course, the causal factors for such relationships cannot be determined from these data.

Significant ($p < .10$) effects for time of testing were obtained in 13 of the 15 analyses of motivation, 10 of attitudes toward the learning situation, and seven of integrativeness, and for these significant effects the results are consistent (see Table 5.2(b)). Motivation, attitudes toward the learning situation, and integrativeness decrease from year one to year two. Examination of the means,

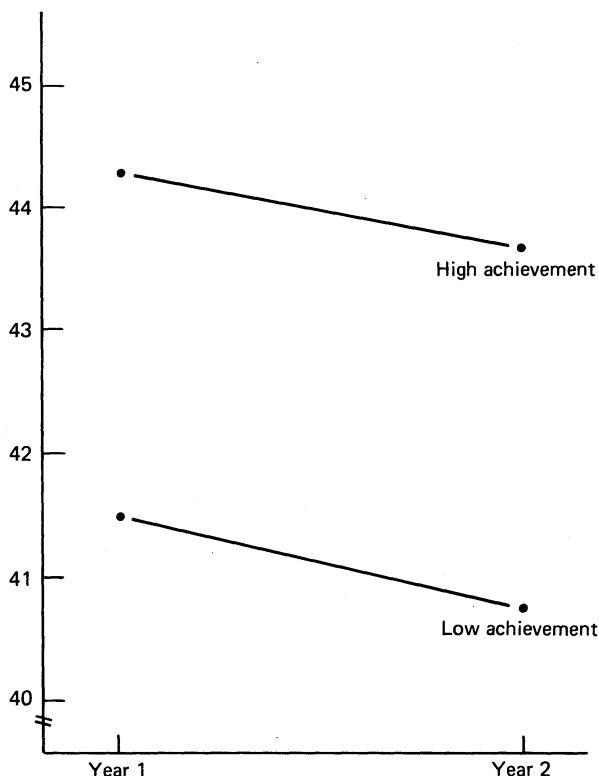


Figure 5.1 Mean integrativeness scores for two years for 15 samples of students classified in terms of achievement based on grades obtained in Year 1.

regardless of the level of significance, reveals a similar pattern though there are some inconsistencies. The means for year one were higher than year two for 11 samples for integrativeness, for all samples for motivation, and for 12 samples for attitudes toward the learning situation. In general, therefore, these data demonstrate a decrease in attitudes from the first to the second year. The reasons for such a decrease, as indicated earlier, cannot be identified unequivocally. The decrease could be due to the effect of the course, or the effect of increased age, education, and experience, or the effect of taking the test twice.

The F-ratios for the univariate tests of the interaction between level of achievement and time of testing have not been presented because of the general absence of any significant multivariate effects (cf. Hummel and Sligo 1971). In fact, for the 15 samples, significant univariate interactions were obtained for only two analyses involving integrativeness, four for motivation, and four for attitudes toward the learning situation. The general lack of an interaction

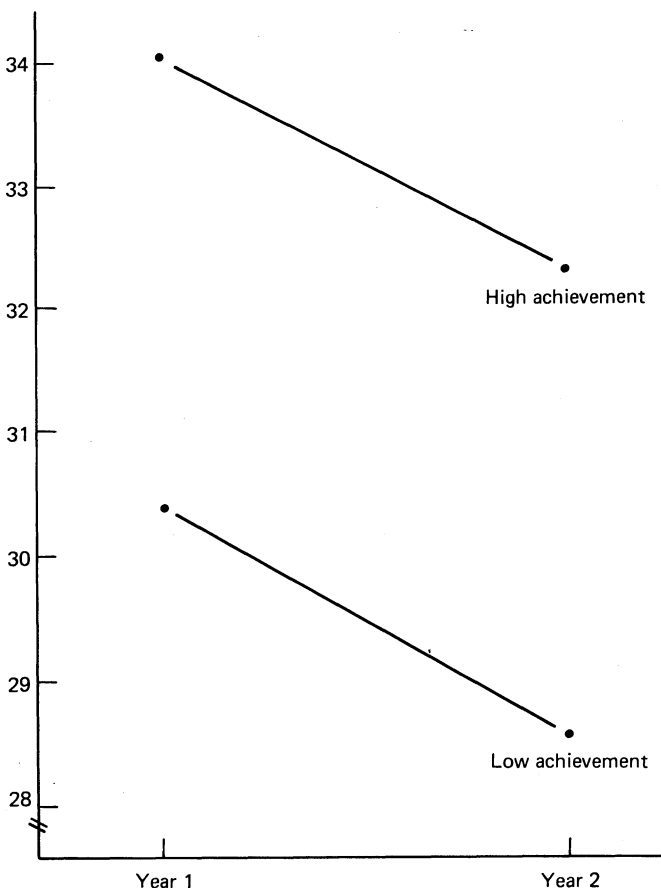


Figure 5.2 Mean motivation scores for two years for 15 samples of students classified in terms of achievement based on grades obtained in Year 1.

for the multivariate analysis and the very sporadic significant effects for the univariate analyses argue against differential attitude change as a function of level achievement. The lack of an interaction is indicated clearly in Figures 5.1 to 5.3 which plot the means of the 15 samples. For each composite index, integrativeness (Figure 5.1), motivation (Figure 5.2) and attitudes toward the learning situation (Figure 5.3), it is obvious that the decrease in attitudes from year one to year two for all three measures is similar for the high achievement and low achievement groups.

Such results have important implications with respect to the use of attitude measures for investigating factors influencing second language acquisition. Since there is no evidence that level of achievement mediates change in integrativeness, motivation, or attitudes toward the learning situation, it suggests that it is not necessary to assess attitudes before the student begins language study. There has always been the possibility that, if attitudinal/motivational variables were assessed after the student had some exposure to the second language, they

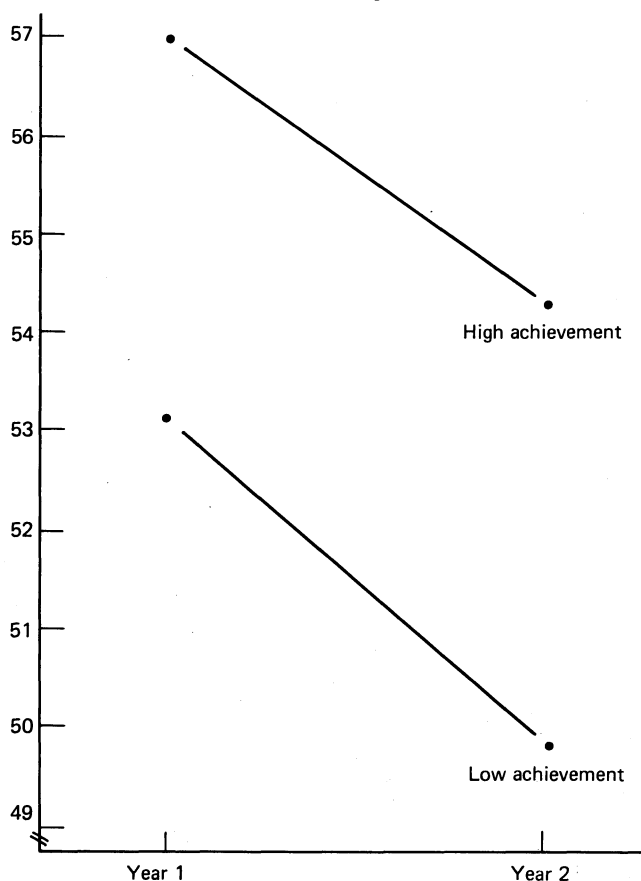


Figure 5.3 Mean scores on attitudes toward the learning situation for two years for 15 samples of students classified in terms of achievement based on grades obtained in Year 1.

might simply reflect differing levels of success before the measurements took place. Students who were successful would develop more positive attitudes than those less successful. This position would argue, therefore, that correlations between attitudes and second language proficiency were due primarily to the original differential levels of achievement. The present results offer no support for the notion that achievement influences the nature and amount of attitude change, thus severely questioning this alternative interpretation.

Intensive language programmes

Intensive language programmes have as their main focus the development of second language skills, and, as might be expected, they are generally successful in this regard. These programmes can be classified in many ways, but the major distinction made here is between relatively short term (i.e., two to six weeks) and longer term (one academic term or more). The primary focus of this discussion, furthermore, will be changes in social attitudes and motivation resulting from such experiences.

Research on short term intensive language programmes has tended to focus on summer school programmes. In an early study, Lambert *et al.* (1963) investigated changes which took place during a six-week programme for adults in Montreal. Subjects for this study were senior high school students, university students and French teachers drawn primarily from the USA who were classified as elementary or advanced on the basis of their skill in French when arriving at the school. The results showed that both elementary and advanced students increased significantly in anomie from the beginning to the end of the course, but that only the elementary students increased in authoritarianism. No significant changes were obtained on a measure of attitudes toward people from France. These results were of particular interest because they demonstrated that, rather than generating positive attitude change, this type of experience could have a somewhat unsettling effect on people.

A complex set of attitude changes were demonstrated by Gardner *et al.* (1977) in their investigation of a five-week residential summer French programme for high school students in an English speaking community. On the negative side, students demonstrated increases in ethnocentrism, a decreased interest in foreign languages, and a reduced integrative orientation for learning French. On the positive side, they decreased significantly in French classroom anxiety, became more motivated to learn French, felt the course was easier than their initial expectations, and reported having greater opportunities to use French. Very similar results were obtained by Gardner, Smythe and Clément (1979) in an investigation of American and Canadian adults involved in an extensive French summer school programme in a French speaking environment.

Similar results were also obtained by Hoeh and Spuck (1975) who used somewhat different objective measures of attitudes in their investigation of a three-week programme abroad. During this time high school students lived with French families and attended French schools for two weeks and toured for the third week. They were tested on the day preceding their departure to France and one day following their return. The attitude measures involved semantic differential ratings of 'myself', 'my ideal self', and 'French people', and Likert-type

items reflecting attitudes toward French schools, French family life and life in France. As above, both positive and negative attitude changes were observed. Positive effects included the students perceiving themselves as more potent, French people as more sociable, and life in France generally better. Negative changes included the perception that French family life is less cohesive and the French school system less valuable than they originally felt.

Somewhat less complex (and more positive) changes were reported by Chlebek and Coltrinari (1977) in their evaluation of two European summer language programmes for Canadian high school students. Apparently these investigators did not make use of any formal questionnaires but instead elicited comments from the participants. They concluded that the students developed considerable ease and self-confidence in French, more favourable attitudes toward learning French, and toward other countries and people, greater maturity and a broader appreciation for their own way of life.

The differences between studies showing mostly positive effects and others demonstrating some negative effects might be due to measurement procedures or circumstances operating in the different programmes. Tucker and Lambert (1970) demonstrated that attitude changes are influenced to some extent by the nature of the programmes as well as how they are assessed. They compared three groups of adult language learners who were themselves French teachers. One group took part in a foreign language leadership training programme in France, another participated in an intensive language programme in France, and the third was involved in a similar programme in the USA. Attitudes were assessed before and after the programmes, making use of both semantic differential and traditional attitude scales. On the semantic differential scales all three groups rated French people more positively on the post-test. At the same time, however, they also demonstrated less positive attitudes on a francophilia scale. This different pattern of results could reflect the different scale characteristics or might reflect a subtle distinction between reactions to 'French people' and 'the French' as a generic term. Actual course differences were obtained on a measure of anomie. Students in the leadership training programme decreased in anomie, those who went to France only for language training increased, while those who remained in the USA did not change. So it is clear that different experiences in addition to different measurement procedures can influence results. It is equally clear that changes do occur.

The important role played by the nature of the programme was also demonstrated by Clément (1979). He conducted two studies, both of which involved testing before and after the programme. One study involved a sample of 26 Yukon high school students, 12 of whom participated in a two-week immersion programme in Quebec, with the others serving as a control group. The immersion students lived at the school, spending approximately 26 per cent of their time in formal instruction and 54 per cent in structured cultural activities such as tours. The second study employed 23 Yukon high school students, 13 of whom lived with French families in Quebec for eight days, receiving no formal language instruction. The other 10 students served as a control group. Two dependent measures were investigated in each study: attitudes toward French Canadians, and French use anxiety.

Analyses for the first study yielded significant interactions between group and

time of testing for both variables. Those students participating in the immersion programme demonstrated slight positive changes in attitudes toward French Canadians and large decreases in French use anxiety, while the control group showed slight decreases in attitudes and very little change in anxiety. Analyses for the second study yielded a significant interaction only for attitudes toward French Canadians. Those participating in the residence programmes evidenced large positive changes in attitudes, while the control group showed virtually no change. The conclusion seems clear that the nature of the programme had a definite effect on the changes produced. Where attention is directed to building competence and confidence in language use, anxiety is reduced. Where, however, the focus is on social-emotional relations with the other community, attitudes toward that group improve.

Although the nature of the programme can influence the types of changes that result, the nature of the setting may not. In two carefully designed studies Shapson *et al.* (1981) compared two programmes which were very similar in terms of duration (four weeks), activities, and type of staff, but differing in terms of socio-cultural background (French and English speaking communities respectively). Eighty grade 10 and 11 students (forty in each community) were involved in the first study and 95 (40 in the French community, 40 in the English community and 15 waiting-list controls) in the second. Both studies had a pre-test and post-test condition, while the second study also included an eight-month follow-up as well as pre-test and eight-month follow-up assessments of the control subjects. In both studies, assessments were made on measures of French proficiency, knowledge of French and English Canadian culture, attitudinal/motivational attributes, self-ratings of French skill, and perceptions about the value of the programme. Comparison of pre-test and post-test results demonstrated significant improvement in French proficiency in both studies in both settings as well as improved knowledge of French Canadian culture, attitudes toward English speaking Canadians, perceived understanding of French Canadian culture and self-ratings of French understanding and speaking, and decreases in French speaking anxiety. In all but the French setting in the first study there was also a significant increase in attitudes toward French speaking Canadians. Comparisons of post-test and follow-up responses indicated significant improvements in French listening comprehension and a significant reduction of knowledge about French Canadian culture in both French and English settings, however, none of the attitude measures evidence significant effects, indicating possibly that the effects produced by the programme tended to be maintained.

Comparisons were also made for the waiting-list control group between pre-test and follow-up, and these were contrasted with an analysis for the combined samples from the French and English settings. This contrast suggested that 'student benefits may be attributed to the programme and not to other factors such as history, maturation or instrumentation.' (pp. 78-9). Direct comparisons between students in the English and French programmes covarying on pre-test scores and focusing on post-test scores for the two studies as well as follow-up results on the second study revealed that the French setting had a significant effect in both years on the students' perceived understanding of French Canadian culture on immediate post-test responses. This difference was not

maintained on the follow-up on the second study, however. In the second study, there was also a significantly greater knowledge of French Canadian culture for students in the French setting, and this was retained on follow-up. All other significant effects were relatively idiosyncratic. In essence, therefore, this study demonstrated relatively little consistent effects attributable to the ethnic background of the community other than direct estimates of perceived understanding of French Canadian culture.

These studies of short term immersion programmes demonstrate that attitude change does occur as a result of intensive language study. Whether the change will be positive, like improved attitudes toward the other language community, or negative, like increased ethnocentrism, quite probably will be due to the nature of the programme. It may also be, as was the case with the excursion programmes, that the effects would differ from person to person on the basis of how much they actually strive to profit from the experience, though this has yet to be demonstrated. Another, and equally possible, alternative might be that the actual intensity of such programmes could eliminate individual differences in this regard. These programmes are so demanding in terms of time and resources that individuals are undoubtedly heavily self-selected, and it is possible that as a result most individuals participate heavily in most aspects.

Some research has also been directed toward the attitudinal effects of longer term immersion programmes, but the bulk of most research concerns the linguistic and academic effects (cf. Swain and Lapkin 1982). When one examines those studies dealing with the effects of these programmes on attitudes involving the other language community, it is surprising how relatively few studies have been conducted. This is even more surprising because, in their review of immersion programmes, Swain and Lapkin list a bibliography of more than 400 articles relating to immersion programmes. Furthermore, the majority of studies that have investigated changes in social attitudes have been conducted in Montreal, thus somewhat limiting the generalizability of the results.

The first such investigation, and clearly the most extensive, was conducted by Lambert and Tucker (1972). It spanned a time period of six years, following the same children from kindergarten to grade five. The major comparisons they presented are between students in immersion programmes and both English and French speaking controls. They reported that in grades one and two the immersion students expressed attitudes toward French Canadians that were more positive than those of the English speaking controls, but not as positive as those of the French speaking controls. This pattern changed, however, as the students grew older. In grades three and four, the immersion students were comparable to the English controls in their attitudes toward French Canadians. In response to direct questions addressed to these students in grade five, however, they indicated that they liked French Canadians more than when they began studying French and that they would be just as happy if they had been born into a French Canadian family even though such differences did not appear when they were asked these questions in grade four.

Lambert *et al.* (1973) had students in the grade five pilot class and the grade four follow-up class rate the concepts myself, English Canadians, French Canadians and French people from France on 13 bipolar semantic differential scales. Significant differences between students in the immersion programme

and English control students in their reactions to the concept French Canadians appeared on only one scale for both classes. More importantly, however, in both classes the ratings of the immersion students were intermediate between the ratings of English and French control students for the concept French Canadians, suggesting that their perceptions of the other community were somewhat mid-way between comparable students educated in their own languages. The profile of responses to the concept myself was similar for the grade five pilot class, but not the grade four follow-up one, indicating possibly that, as students became a bit older, even their self-perceptions might moderate, a generalization also suggested by the earlier findings. There was no consistent pattern for either class in their reactions to the other two concepts.

It is not clear whether such reactions are consistent, however. Genesee *et al.* (1978) found, for example, that students in grades one and two French immersion classes tended to identify more with both French Canadians and people from France than did English controls. Unfortunately from the point of view of stability over time, no such differences were obtained with students in grades three to five, which might be expected on the basis of the results obtained by Lambert *et al.* (1973) referred to above.

A somewhat different set of results were obtained by Cohen (1975) in the Redwood City project conducted in California. He studied three samples of Mexican American children (with a total sample size of 45 students) registered in bilingual education programmes at the elementary school level and compared them with comparable groups of children in conventional English only schooling. One group had three years of bilingual schooling that began in grade one, while the other two had two years of bilingual education (one beginning in grade one and one beginning in kindergarten). Attitudes were assessed by means of pictorial questionnaires using frowning and happy faces to indicate unfavourable and favourable responses respectively. For the first group referred to above, the students in the bilingual education programme expressed significantly more favourable attitudes toward the Mexican culture and towards school than did the comparison group, but no significant effects were obtained with respect to student attitudes for the other two groups. Cohen (1975) suggests that, 'It may be that children have to spend a minimum of three years in a bicultural program for pronounced cultural attitudes to appear.' (p. 258). This conclusion is somewhat incompatible with the results obtained in the other studies discussed above, but it should be noted that students in this study were minority group members while those in the other studies were largely socially advantaged children. Quite possibly the social milieu might mediate any attitude change.

In discussing the Montreal studies, Swain and Lapkin (1982) hypothesize that immersion programmes may have a greater influence on the attitudes of young children as compared with older ones, a possibility that is also suggested by Blake *et al.* (1981). Such an effect could occur either because younger children's attitudes are more malleable, or because the novelty of the immersion programme evokes attitude change in the beginning years.

Another possibility could be that consistent and permanent attitude changes take place but that researchers focus on the wrong component of the attitude. This is the view held by Cziko *et al.* (1979). They proposed that attitude change is

expected to result from immersion language training because of the constant interaction with a teacher from the other cultural community and a developing proficiency in the language which causes students to lose their feelings of foreignness about that community. As a consequence, they argued that changes in attitudes might involve the cognitive as opposed to the evaluative component.

In order to focus on this component, these investigators employed a multi-dimensional scaling procedure to assess the dimensionality underlying perceptions of 10 socially relevant concepts involving people from France, people from England, Americans, Italian Canadians, the teacher, the self, and the four combinations of bilingual and monolingual French and English Canadians. Groups of students from grades five and six were tested, consisting of English speaking controls, French speaking controls, early immersion students (who began immersion French in kindergarten) and late immersion students (who took a one-year French immersion course in grade four). One dimension which appeared to be common to the four groups was a language, or English-French, dimension. Further analyses of variances indicated that the early immersion students tended to perceive themselves in terms of a bilingual focus (i.e., similar to both bilingual French Canadians and bilingual English Canadians) more than the other three groups. These results were interpreted to mean that in the process of becoming bilingual, anglophone students undergoing extensive immersion training tend to reduce the social distance between themselves and French Canadians, particularly bilingual ones. Thus, immersion programmes are seen to have an effect on the cognitive component of the attitude.

The social implications of early immersion training and bilingualism were examined in another way by Blake *et al.* (1981), who also focused on the cognitive component of attitudes. They contrasted four groups of Canadian students at the grade six level and another four at the grade 11 level. In each case, the groups consisted of monolingual and bilingual French Canadians and monolingual and bilingual English Canadians (these last two groups being defined in terms of whether or not they had participated in an immersion programme from kindergarten or grade one). Subjects were asked to indicate the similarities and differences between English and French Canadians and to comment on problems in English-French Canadian relations and suggest possible solutions. The data were analysed by first having judges score the students' cognitions according to a well-defined classification scheme. In summarizing their findings, Blake *et al.* (1981) state, 'The results suggest that early bilingual and bicultural experiences promote more receptive and less ethnocentric attitudes at an earlier age and, in general, provide bilingual adolescents with unique insights into the nature of intergroup problems facing Canadians and into ways of ameliorating intergroup relations.' (p. 144).

Taken together, these studies of long term immersion programmes offer little reason to conclude that they have permanent effects on the evaluative component of attitudes toward the other language community. They may have some effect on the cognitive component, however. In general, their effects on attitudes are in fact surprisingly minor. This conclusion has also been voiced by Edwards (1976) after his study of the opinions of grade four students concerning various factors associated with immersion training. He said, 'We obtained

perhaps fewer significant differences in this area than might have been expected, although immersion children did have a significantly more positive attitude towards learning French and, as a group, perceived their parents as significantly more supportive and encouraging than did the children in the comparison programme.' (p. 141).

Some studies, particularly those concerned with specific aspects of the programme itself, are positive and appear to be relatively long lasting. In their pioneer study, Lambert and Tucker (1972) asked a number of questions of their grade four and five students which reflect their attitudes toward aspects of the programme. Their attitudes were clearly favourable and more positive than the control students were in theirs.

Such positive attitudes, furthermore, appear to be relatively permanent. Genesee (1978) tested anglophone students in grades six and 11 who had either immersion or regular training, and assessed their attitudes toward the use of French, their motivations for learning French, and their perceptions of their own French competence. In his words, 'According to the students' own reports, the French immersion experience had afforded them a greater sense of confidence and comfort in speaking French and also a greater willingness to use French when the situation arises. . . ' (p. 38). He reported further, however, that the immersion students did not seem to be particularly active in speaking French and concluded, ' . . . when the students' own reports of how frequently they use French in various situations were examined, there was no evidence that they use French more outside school than do their peers in the regular program.' (p. 38). For these students then, the immersion training experience influenced their attitudes but not necessarily their behaviour in contact situations.

The long range effects of favourable attitudes toward the programme and also possibly a late development of favourable attitudes toward the other language community has been demonstrated by Cziko *et al.* (1980), who conducted a follow-up of the students investigated by Lambert and Tucker (1972). At this point the students were in grade 11. Cziko *et al.* contacted as many of the original 22 students who began in the early immersion kindergarten and the 34 control students as they could. They report commentaries for 19 early immersion students and 24 control students and statistical summaries for 17 and 21 respectively. The results indicate that students in the early immersion programme recognized the value of their experience. Many would choose it again; they express self-confidence and satisfaction with the level of French proficiency attained; they are interested in studying other languages, and they evidence more favourable attitudes toward French speaking Canadians. Some of these outcomes, particularly the favourable attitudes toward French Canadians, didn't show themselves in evaluations while the programme was underway, but that they did as these individuals prepared to leave school is encouraging. Obviously more research must be conducted to attest to the generality of these findings, but they are clearly encouraging.

Summary and conclusions

This chapter considered the proposition that experiences associated with second language acquisition can have an influence on a student's attitudes and

motivation. In evaluating this research, focus was directed to three different types of language experiences, bicultural excursion programmes, regular language courses, and intensive language training. The general conclusion that seems to emerge from considering all of these is that changes in social attitudes assessed at the time may be greatest where the programmes involve novel experiences of rather brief duration.

This rather unexpected conclusion derives from the following. To begin with, the most pronounced attitudinal and motivational changes seem to emerge in brief bicultural excursions, particularly among those students who dive right in and try to maximize their contacts with members of the other community instead of acting like passive sightseers. Since it is unlikely that such exuberance would be maintained if the student did not receive some reinforcement, it seems likely that the experiences are positive ones. Whether this, in turn, reflects some positive glow that students give off during such interactions that elicits favourable exchanges, or whether it is simply some random environmental circumstance is not yet clear. It does seem to be the case, however, that those who visit the other community and report active participation are the ones who develop the more favourable attitudes.

The possible superiority of brief experiences and the nature of these experiences are also implicated in studies of intensive language programmes. More changes seem to be reported for programmes involving immersion for six weeks or less than for programmes lasting a year or more. Of course these different results could be due to possible differences in the types of students who become involved in the respective programmes, but it seems more likely that the novelty of the shorter programmes mediates the attitude change. Students who enrolled in long term programmes may appreciate their unique experience, but, after initial positive reactions toward the other language community, their attitudes might tend to come into line with their environment. Other than the fact that they are being trained in a language other than their home one, they are like any other student in that they have homework to do, friendships and arguments with colleagues, expectations and worries, etc. The act of becoming proficient in the second language may not produce changes in social attitudes or motivation. It may (probably does) make them more relaxed and confident when speaking the language, but why should it necessarily change attitudinal and motivational attributes of a more general nature at that time. Later on, when the course is over and when students have the opportunity to contrast their experiences with those of friends and colleagues from different educational backgrounds, they may recognize their advantage. But this need not happen at the time of the training and may not result in attitudinal/motivational changes.

Much the same conclusion is suggested by studies of regular programmes. Some students may enter them with apprehension and with negative expectations, while others have opposite feelings. The language course can be an emotional experience. Negative attitudes might result from frustrations experienced, while positive attitudes might evolve from success. There is little to suggest, however, that changes in attitudes result because of differential grades obtained in the class. Again this would seem to reflect the constancy of the situation. Students are members of a language class in addition to engaging in many other activities, and it is quite likely their total experiences influence their

attitudes and motivation not simply the one programme. Where relatively brief innovations are introduced they might influence attitudes and motivation, particularly for those who become actively involved, but here again it would seem to be the novelty and the experience which mediates the change, not the process of learning the second language.

6

Second language acquisition: focus on the parent

Overview

The purpose of this chapter is to review research that relates directly to the role of the parent in second language acquisition. Although not too much research has been conducted on this topic, the available information suggests that the parent does indeed play a role, but not necessarily the one many parents would feel they play. To a considerable extent this chapter is a call for more research on what could be a highly important and sensitive topic. It provides a framework in which to consider the role of the parent and suggests a general research strategy. A basic assumption underlying this analysis is that attitudes and motivation are implicated in second language acquisition, and that to the extent that parents play an important role in attitude development, they will also be influential in their child's attempts to learn a second language.

Factors that influence attitude development

Many factors have been shown to influence attitude formation. Oskamp (1977) even suggests that although it is obvious that attitudes are learned, it is not meaningful to rule out the role of genetic and physiological factors in their development. He suggests that individual differences in aggressiveness, or persuasibility, for example, which could have a genetic component, might help to account for differences in attitudes. Although social scientists tend to play down genetic factors, it is quite reasonable to expect that many variables influence the development of individual differences. In the area of need achievement, for example, Stein and Bailey (1973) conclude that the environmental characteristics that promote high levels of need achievement in girls are not necessarily those that promote high levels in boys. It seems possible, therefore, that a similarly complex set of variables could mediate attitude development.

There are other, more traditionally accepted, determinants of attitudes that social scientists generally consider of major importance. In his presentation, Oskamp (1977) directs attention to personal experiences with the attitude object, parental influence, group determinants, and the mass media. He discusses research dealing primarily with ethnic and political attitudes and concludes that parents are the major determiners of children's attitudes, at least initially. As they grow older, however, factors such as direct experience and the mass media have their influences as do direct indoctrination in school, peer

group pressures, reference group values, and simply general expectations or beliefs in the cultural community.

Very similar determinants of intergroup (ethnic) attitudes are discussed by Harding *et al.* (1969). They too consider parents to be the major socialization agents but point out that many times children's and parents' attitudes diverge. In fact, they conclude their section on parental influences with the admonition that 'Not only is there a subtle interplay between general cultural as well as family influences impinging on the child, but particular children for a variety of reasons may develop specific attitudes contrary to the prevailing sentiments surrounding them' (p. 28).

By focusing attention on the parent there is therefore no intention to denigrate the role of other factors that could have an effect on the development of attitudes and motivation in the child that could influence second language acquisition. Clearly teachers play an important motivational role, as do pedagogical techniques, experiential factors, peer groups, etc., and these influences deserve to be investigated. By highlighting the possible role of the parent, hopefully I will encourage more research to be conducted on the various agents that could influence attitudes and motivation in second language learning.

In previous articles, I have outlined a socio-educational model of second language acquisition (see, for example, Chapter 8 and Gardner 1979; 1981). That model proposes that the socio-cultural milieu is important not only for the development of attitudinal/motivational characteristics but also for the role played by attitudes, motivation and language aptitude in second language learning. The model also proposes that the socio-cultural milieu can play a large role in influencing the actual level of second language proficiency attained by students in general, because of the expectations imposed on them. The validity of aspects of this model is demonstrated in Chapter 8. In the present chapter, however, attention is directed at the research that considers the role of the parent because it is the parents who act as the major intermediary between the cultural milieu and the student. Their role, therefore, should be examined carefully.

Potential roles of the parent

Examples of the potential contribution of parents are suggested by comments made by students in Burstall's (1970) long term investigation of the French programme in the primary schools in England and Wales. One boy wrote, for example, 'My parents do not mind me learning French, but they do not think it will be of any use to me' (Burstall 1970, 45-6), while a girl wrote, 'Now that we are going to our new school we will have harder French, and I cannot do it, - even my mum agrees that it is a complete waste of time' (p. 48). On the more positive side, Burstall reports the following comments (all made by girls), 'I enjoy speaking French and often do so at home with my parents, who both know French'; 'My mum teaches me French at home, in addition to the French I learn at school'; and 'My parents think it is very good that I am learning French because they did not have a chance until they were much older' (p. 46). These comments are instructive because they highlight two possible roles played by the

parents, one reflecting general beliefs about French, and the other, specific behaviours with respect to the French programme.

Gardner (1968a) distinguished between two potential roles of the parent, and these appear to be reflected in the quotes give above. One he identified as the *active* role. He suggested that parents play an active role when they encourage their children to do well, when they monitor their language learning performance, and when they reinforce any successes identified by the school. The mother who teaches additional words or phrases, or comments on some aspect of pronunciation is obviously displaying an active role. Parents are also playing an active, albeit negative, role when they agree with the child that French is a waste of time, or when they object to the intrusion of French on 'important' subjects in the curriculum. It seems very reasonable to hypothesize that individual differences in parents of the extent to which they make active contributions to the language learning context would influence their children's acquisition of a second language. No research appears to have been conducted, however, which attempts to identify the dimensions underlying parents' behaviour relative to such an active involvement; nor is there much direct evidence suggesting an association between active parental involvement and second language proficiency of their children.

The second role was referred to as the *passive* role. It was considered to be more subtle than the active role largely because the parent may not be aware of it, and it is even conceivable that the two roles could be independent. The passive role was hypothesized by Gardner (1968a) to involve the parents' attitudes toward the second language community. He argued that to the extent that parents had positive attitudes toward the community, they would serve to support an integrative motive in the student. Parents with negative attitudes, on the other hand, would inhibit the development of such positive attitudes, even in situations where they might actively promote second language achievement. That is, it is conceivable that such parents could encourage their children to do well in their second language training, monitor their progress and generally reinforce their successes. At the same time, they might, in other contexts, express negative opinions about the other language community, thus developing similar attitudes in their children. The literature, discussed previously throughout this book, demonstrating positive relations between attitudinal/motivational attributes and second language proficiency would thus lead to the expectation that parents' attitudinal characteristics could influence their child's second language proficiency even in those situations where parents appear to actively support the programme. Of course, if parental attitudes carry over to their active role, the influence of parental attitudes is no longer subtle. The important thing stressed here, however, is that parental attitudes could be influential in the language learning context even where parents play a supportive role. Such a conclusion suggests that both roles should be considered.

There is considerable research which indicates that children's attitudes are dependent in part upon those of their parents, and, although as we have seen there are many factors that can influence attitude development, there is general consensus that the parent plays a major role (cf. Harding *et al.* 1969; Oskamp 1977). Even this role is complex, however, as suggested by Milner (1981). He proposes that ethnic attitudes develop in children as a consequence of three

overlapping processes. First, some attitudinal development occurs in children as a result of direct tuition from their parents. He states, 'Parents undoubtedly do make explicit statements about their beliefs and attitudes on a variety of social issues, and there is usually an implicit encouragement for the child to feel likewise.' (p. 124). Second, attitudes develop through indirect tuition, 'where attitudes are not consciously taught, but are implicit in what the parents say or do' (p. 126). In the process of identifying with the parents, children incorporate much of their value system. Milner (p. 125) proposes that 'Identification promotes the desire to emulate the parents, to appear grown-up by spouting adult ideas, and simply to gain approval by being like them.' The final process is role-learning. As they grow and mature, children learn 'to behave, feel and see the world in a manner similar to other persons occupying the same position' (Secord and Backman 1964, quoted by Milner 1981, 125).

It is easy to see the application of particularly the first two of these processes in the development of attitudes relevant to second language learning. The first corresponds to Gardner's (1968a) conception of the active role, the second to the passive role. Where they both reflect the same attitudes (either positive or negative), it is reasonable to assume, with all the caveats listed earlier, that the child would develop similar attitudes. Where one role, for example the active role, presents positive attitudes and the other (the passive role) transmits negative attitudes, the child's attitude would, again with the caveats already discussed, reflect some resolution of the conflicting information. The nature of this resolution would depend upon many factors and is not easily predicted. What is clear, however, is that parents do have an influence on children's attitudes and motivation and, to the extent that these are related to second language acquisition, the parents thus play a role in the development of proficiency in the second language, of which they may or may not be aware.

Empirical studies of the relation between children's and parents' ethnic attitudes

As already discussed, parents are not the only source of attitudes toward ethnic groups, but they are a primary one particularly at the younger ages. This was clearly demonstrated by Lambert and Klineberg (1967) in their study of 100 six-year-olds, 100 10-year-olds, and 100 14-year-olds in each of 11 countries. They found that, whereas six-year-olds identify their parents as their major source of knowledge about ethnic differences, the older children de-emphasized the role of the parent and instead focused attention on movies, television, books and school. Nonetheless, parents undoubtedly play a role later on if for no other reason than that they lay the foundation for subsequent learning. Ehrlich (1973) indicates four ways in which parents influence attitude development of their children, and it is clear that the effects can be long range. He suggests that parents communicate their attitudes directly (i.e., direct tuition), that they control their children's opportunities for interethnic contact and experience, that they employ child-rearing practices which can influence children's inter-group attitudes and that they establish a life style which influences their children's reactions to other people and groups. These various factors are all part of the child's development and may be well established long before the child

enters a language classroom. They come to bear, however, on his or her reaction to the language learning situation and to the very process of second language acquisition.

This is not meant to imply that children simply reflect the attitudes of their parents. The process is much more complex than that, as indicated by many studies. One early study (Murphy *et al.* 1937) did report fairly high correlations ranging from .43 to .69 between university students' and their parents' attitudes, but these involved attitudes toward war, church and communism rather than toward ethnic groups. Even though these correlations were quite high, they were influenced by socio-economic status; parent-child correlations were lower among higher socio-economic families than they were for lower socio-economic pairings. Ehrlich (1973) reviewed many studies concerned with the relation of parents' and children's attitudes and found that parent-parent and sibling-sibling correlations are higher than parent-child correlations, again pointing to the role played by other socio-cultural influences. In their study, Allport and Kramer (1946) found that 69 per cent of their university student sample indicated that their attitudes derived from those of their parents, but clearly they did not imply a one-to-one correspondence.

In addition to the obvious factors of age and experience that could modify the relationships between parents' and children's attitudes, another factor could be salient. That is, in 1937 when Murphy *et al.* reported their results, attitudes toward war, church and communism may have been relatively salient, resulting in the relatively high correlations obtained. If the attitudes had been less salient, it is likely that the correlations would have been lower. This is suggested by findings reported by Radke-Yarrow *et al.* (1952). They interviewed the mothers of first and second grade children and assessed their attitudes (classified as accepting or neutral, sometimes accepting and sometimes hostile, and mainly hostile) toward Blacks, Catholics and Jews. Children's attitudes were similarly classified. Although there was some association between children's and parents' attitudes, they were much lower than those reported by Murphy *et al.* (1937). In a similar vein, Bird *et al.* (1952), and Frenkel-Brunswik and Havel (1953) have reported relatively low (but significant) correlations between parents' and children's ethnic attitudes.

One possible explanation for the often relatively low correlations between parents' ethnic attitudes and those of their children might be simply that the attitudes of children toward ethnic groups may not be that salient in many cultural contexts. That is, parents may discuss more openly their attitudes and opinions about war, communism, religion, language classes, etc., but be less inclined to discuss their views about ethnic groups. Clearly this would not be true in all contexts, but where it is, the relation between parents' and children's attitudes toward the ethnic groups would be expected to be relatively low.

This interpretation seems particularly appropriate for the results obtained by Gardner *et al.* (1970) in their study of attitudes and ethnic stereotypes of 111 grade nine students (14-15-year olds) and attitudes of their parents. Factor analysis of both student and parent data yielded a general familial authoritarian dimension. Students with parents expressing authoritarian and ethnocentric attitudes toward their own community expressed similar generalized attitudes. Less clear-cut relations were evidenced between parents' and children's

attitudes toward French Canadians. They concluded, 'One implication of this pattern is that children adopt generalized authoritarian attitudes similar to those of their parents relatively quickly, but that it takes more time to acquire their attitudes towards specific groups' (p. 327). Other data presented in the study suggested that these children did not stereotype French Canadians as much as adults (university students), suggesting that the failure to obtain substantial relations between parents' and children's attitudes toward that group could be due simply to the fact that the attitudes were less salient for the children.

A similar generalization is suggested by Kirby and Gardner's (1973) investigation of stereotypes of children at three different age levels, nine to 10 years, 11 to 13 years, and 14 to 17 years, and their parents. They found greater similarity between the child and adult groups for their stereotypes of English Canadians than for either French Canadians or Canadian Indians. Other findings indicated that the stereotype of English Canadians was the most clearly developed, implicating the importance of salience in determining the relation between parent and child reactions. Lambert (1974) argues that an important aspect of the socialization process, which parents actively contribute to, is the development of in-group identity which is fostered by delimiting the beliefs about that group, and this is clearly supported by these findings.

This section has focused attention on ethnic attitudes because it is these that are conceptually more similar to many of the attitudes that have been shown to relate to proficiency in a second language. The major point deriving from this discussion is that the correlation between parents' and children's ethnic attitudes, though significant, is not high and that this is probably due to the fact that in the areas studied the attitudes may not be that salient. There is a need to investigate other classes of attitudes that have been implicated in second language learning, but in many instances the issue of salience would appear to be equally relevant.

Research relating to the parents' role in second language acquisition

Some research has directed attention to the parents' role in second language acquisition though, as indicated above, it is generally of secondary interest. Moreover the distinction between the active and passive role is often not that clear. Such contrasts, made here, are interpretative only and were not made in the investigations discussed.

One area where one might assume active parental involvement is on the decision as to whether or not the child should register in a French programme, and one place where one would assume such involvement would be implicated would be in immersion programmes. That is, it would be expected that parents who are opposed to second language training would prevent their children from registering in courses where the medium of instruction is the second language. Of course, such parents are not so easily identified. Instead what are available are the parents of students who did enrol in these classes, and parents of children enrolled in regular classes. Comparing these two groups of parents yields ambiguous conclusions, quite probably because of the heterogeneity of the control parents. That is, while it is safe to assume that parents who send their children to immersion programmes are obviously in favour of such an

education, it does not follow that parents who do not enroll their children in immersion programmes necessarily have negative attitudes. There are many potential reasons why parents may opt out of such a programme.

One study which contrasted such parents was conducted by Frasure-Smith *et al.* (1975). They investigated four samples of adults. Two were French Canadian samples, one of which had their children attend an English language school, and the other whose children attended a French language school. In a similar way, the two samples of English Canadians differed in that for the one their children attended an English language school, while the others went to French schools. Within each language group, the parents were compared on 10 attitude and motivation indices. Among the French Canadian parents, those who sent their children to English language schools felt that (a) French language schools were not as good, (b) how far children had to travel to get a good education was irrelevant, (c) there was prestige in knowing more than one language, and (d) it was politically expedient; furthermore, both they and their children had an integrative orientation to language study. There were no differences, however, between the two English speaking samples on any of these attitudes.

Frasure-Smith *et al.* sought to determine differences in the ethnic identities of the four groups by employing multidimensional scaling procedures to study the way they organized self and ethnic perceptions by having them rate the degree of similarity between various pairs of concepts. The French Canadian parents who sent their children to English language schools perceived the concepts of myself and my child close to bilingual labels (bilingual French Canadian and bilingual English Canadian) and somewhat removed from monolingual French Canadians. French Canadian parents who favoured the French language schools, on the other hand, perceived the concepts of myself and my child close to monolingual French Canadians and somewhat removed from French people from France, bilingual French and English Canadians, and Americans. Clearly in these two instances the nature of the ethnic identification paralleled the choice of schools.

As before, however, the results for the English Canadians were not so clear. Those who sent their children to English language schools perceived the concepts of myself and my child to be close to bilingual English Canadians and fairly distant from all other concepts. Those who sent their children to French language schools, on the other hand, tended to perceive myself and my child as relatively distinct from the other concepts. In this instance, there is no close parallel between ethnic identity as assessed by means of multidimensional scaling and choice of schools; this absence of any clear pattern also occurred with the attitude data. In searching for possible differences, Frasure-Smith *et al.* noted that the 'majority of the English-speaking parents choosing French language schooling were born in Canada and, in particular, French Canada. By contrast, half the parents choosing English language schooling were immigrants born outside of Canada' (p. 152). Clearly more research is needed. What appears to be a relatively simple question turns out to evoke complex answers. Although it may be concluded that in some instances parents choose their language schooling because of attitudinal factors, this is not always the case.

Lambert and Tucker (1972) also report no differences between parents of the students in the initial St. Lambert French immersion programme and the

control groups. They state that, 'Our plan was to select pupils for the English Canadian Control Classes who would very likely have been part of the Experimental Class if given the opportunity' (p. 15) so perhaps a lack of difference is to be expected. Nonetheless, the parents do differ in that their children do attend different types of language schools, and the fact that they are similar in attitudes suggests that the difference is not dependent on the attitudes. They are similar too in that both groups endorse integrative reasons as being the most important for learning languages (actually three of the four most important reasons were integrative) and instrumental reasons as less important (three of the four least important reasons were instrumental). Moreover, experience in the respective programmes had no apparent effect on attitudes. One year after the beginning of the course, both types of parents were tested on their attitudes toward French Canadians and English Canadians. No significant differences due to type of programme were obtained.

Sharma (1983) investigated the attitudes of minority group parents to their children learning their own language or English in the British school system and obtained somewhat different results from those reported above with respect to integrative and instrumental orientations toward second language study. Subjects were 59 fathers of Indian families who had lived in Britain for 15 to 20 years. They were interviewed about their attitudes toward their children receiving education in both English and their own language. A factor analysis of reactions to orientation items with respect to the teaching of English to their children revealed two clear factors, an instrumental and an integrative orientation factor respectively. Moreover, the parents stressed the instrumental value of learning English for their children much more than they did the integrative orientation, and the difference was significant at the .01 level. The distinction between integrative and instrumental orientations was not evident, however, in reactions to reasons for their children to learn their home language. A factor analysis revealed only one factor, and both integrative and instrumental reasons for learning the home language were equally popular. As Sharma (1983) states, 'Obviously the respondents considered the educational and cultural merits of maintaining home-languages in the schools' (p. 318). Clearly, therefore, the social factors operating on parents influence their views of the importance of language acquisition in the schools, and such factors could be responsible for the somewhat different results obtained with the two language groups by Frasure-Smith *et al.* (1975).

Bruck (in press) considered the role of parental characteristics in determining participation in a French immersion programme, but, rather than investigating reasons for entering the programme, she studied correlates of the decision to transfer out of the programme. She compared 74 children in grades two to four who had experienced academic difficulty, 30 of whom later transferred out of the programme and 44 of whom remained. The data considered included material from children and parents obtained before the transfer took place. The results indicated that the major predictors of who would withdraw were the children's attitudinal/motivational characteristics; parental characteristics reflecting socio-economic, educational, ethnic, linguistic or socio-linguistic dimensions failed to differentiate between the two groups. Bruck noted that because of the importance of children's attitudes in determining who would

transfer, it was anticipated that similar differences would be reflected in the parents' attitudes. That such differences weren't obtained she attributes to an overconcern on the part of parents with the emotional well-being of the children. The majority of the parents valued bilingualism and hence would have favourable attitudes. She suggests that retrospective studies of transfer children that show parents as having less favourable attitudes are possibly reflecting the consequences of transferring one's child, not the reasons for the transfer. It remains, however, that the children's attitudes did differ and they should reflect some familial attitudes. Perhaps parental attitudes did differ, but the parents were more able to conceal their feelings in the assessments used.

There are, of course, many factors involved in selecting the schooling for one's child, so it might be instructive to consider the parental role in a much less complex decision. Desrochers and Gardner (1981) examined the differences between parents who permitted their children to take part in a school-organized, four-day excursion of grade eight students to the French city of Quebec and those who did not. Information was obtained from the parents as part of a well-publicized, city-wide assessment of the French programme in general so that there was no obvious link between the questionnaire and the up-and-coming excursion. When the parents were compared, however, it was found that, in contrast with parents of children who did not go, those whose children eventually participated in the excursion expressed more favourable attitudes toward French Canadians and toward compulsory French instruction; they were also somewhat *less* well educated. It is of interest to note that the parents did not differ in socio-economic status even though it was generally believed that economic considerations tended to be involved in the decision to take part in the excursion. In this rather simple decision, therefore, it is clear that parental attitudes toward the other language community and the value of learning the language were involved. This indicates a fairly direct connection between attitudes and the active role of the parent.

Desrochers and Gardner also factor-analysed the children's attitude, motivation, and French proficiency measures and the parents' attitude data in two separate factor analyses. Correlations were then computed between the factor scores obtained in the two analyses. The only significant correlation was between French language related attitudes for the parents and the integrative motive for the children. The correlation was low (.14) but significant ($p < .05$) suggesting that children's integrative motive for language study is fostered by a home environment characterized by favourable attitudes toward aspects involving the other language.

In an investigation of the role of the parent in determining language achievement, Colletta (1982) administered comparable measures of interest in foreign languages, attitudes toward French Canadians, integrativeness, ethnocentrism and parental encouragement to both parents and children. Correlations between 68 children and their parents were .12, .03, -.04, .00, and .20 respectively, none of which were significant. In this case, therefore, there does not appear to be any relation between children's and parents' attitudes. On the basis of the earlier argument, it might be concluded that in this setting the attitudes were not salient, though it is of interest to note that this study was conducted in a region where French and English language instruction is common and often

discussed, and where there is a large proportion of both English and French speaking Canadians. An alternative explanation might be that these attitudes are very salient, and parents' and children's attitudes might be influenced by many different factors.

Despite these negative results, other studies have shown significant relations between parents' attitudes and perceptions and children's attitudes in the context of second language acquisition. Gardner (1960) interviewed the mothers of the students he studied and found that the orientations of mothers and children tended to agree. Children who were integratively orientated generally had mothers who expressed an integrative orientation, while instrumentally orientated children had mothers who tended to express an instrumental orientation. In addition, the mothers of integratively orientated students expressed more favourable attitudes toward French Canadians than did mothers of instrumentally orientated children. Four other parental measures, the number of French friends they had, the number of French friends they felt their child had, the mother's assessment of her own French skills, and the mother's assessment of the father's French proficiency were not significantly related to the student's orientations.

The relation between parents' and children's attitudes was investigated more directly by Feenstra (1967) who, in addition to assessing students' language aptitude and French proficiency, also administered comparable attitudinal/motivational measures to grade eight students and their parents. Factor analysis of the correlation matrix comprising both child and parent data indicated that 'integratively-oriented students tend to come from homes where parents have a basic integrative orientation in combination with pro-French attitudes' (p. 42). Examination of the correlation matrix reveals that six of the 10 corresponding measures on parents and their children were significantly correlated.

Scores for parents and children were significantly correlated for attitudes toward French Canadians ($r = .20, p < .05$), anomie ($r = .23, p < .01$), cultural allegiances ($r = .19, p < .05$), study habits ($r = .28, p < .01$), instrumentality ($r = -.19, p < .05$) and integrativeness ($r = -.23, p < .01$). The first four correlations reflect a correspondence (though not a strong one between parents and children). The latter two are negative, suggesting a slight disagreement between parents' orientations for their children and their children's own orientation. Although interpretation of these two correlations is difficult, the finding of a non-significant correlation between parents' and children's scores on parental encouragement ($r = .15$) suggests possibly that in many families there is no clear communication about the importance or value of learning French. One possible explanation is that in some homes there is a lack of agreement in the parents' active and passive roles resulting sometimes in lack of agreement or even slight disagreement on some attitudes.

Four of the parent attitude measures correlated significantly with children's achievement in French as indexed by the final term French grades. These were anomie ($r = -.24, p < .01$), ethnocentrism ($r = -.17, p < .05$), study habits ($r = -.45, p < .01$), and cultural allegiances ($r = -.23, p < .01$). The first three correlations suggest a direct relation between parents' generalized attitudes and perceptions of important study habits and their children's

proficiency in the second language. The correlation involving cultural allegiances is, however, opposite to expectation since it suggests that children who do well in French have parents who, relatively speaking, prefer non-French speaking people over French speaking ones. Any interpretation of this relationship would be hazardous, and it would seem prudent to see whether future studies uncover similar relationships.

A similar research strategy was adopted by Gardner and Santos (1970) in their investigation of senior high school students in Manila, Republic of the Philippines, who were studying English as a second language. This study demonstrated a clear factorial association between parents' and children's orientations and, to a lesser extent, parents' and children's attitudes. Furthermore, children who were instrumentally orientated and who had parents who expressed a similar orientation were more proficient in some oral language skills than integratively orientated students. It should be emphasized that this pattern did not involve any motivational indices; hence, the association would not appear to depend upon a motivational component. Since English was the language of commerce in Philippines, this factorial structure may simply reflect the very practical value of knowing English.

When attention is directed toward specific correlations between comparable parent and child attitudes, low but significant correlations are seen for five of the nine common measures. Significant correlations between parents and their children were obtained on the orientation index ($r = .31, p < .01$), and assessments of instrumentality ($r = .24, p < .05$) attitudes toward Americans ($r = .30, p < .01$) anomie ($r = .29, p < .01$), and cultural allegiances ($r = .40, p < .01$). It is interesting that these are the same types of measures that showed significant relations in the Feenstra (1967) study. In this case, however, the correlation involving instrumentality is positive possibly because the utilitarian value of knowing English in the Philippines is so salient. As in the previous study, furthermore, there was no significant correlation between parents' and children's perceptions of parental encouragement ($r = .14$) suggesting once again a possible incompatibility between the parents' active and passive roles in some families.

Only two of the parental attitude measures correlated significantly with the students' grades in English, ethnocentrism ($r = -.23, p < .05$), and cultural allegiances ($r = -.30$). Because of the way these measures were scored, these correlations suggest that children who do well in English have parents who are not ethnocentric and who prefer the American to the Filipino culture, and it is understandable that there would be a direct (though not pronounced) association between these attitudes and how well their children do in English.

As was generally true of the study by Feenstra, there are low but significant correlations between parent and child attitudes which would be expected to be relatively salient, but only a few significant correlations between parents' attitudes and children's achievement in the second language. Other indices of proficiency with English showed similar patterns of relationships. In both instances, however, it must be emphasized that the correlations are low, suggesting that parental contributions to both attitudes and second language achievement of their children are anything but large, particularly when the children reach senior high school age.

Desrochers (1977) also factor-analysed students' and parents' attitudes as

well as measures of second language proficiency. He investigated two groups of grade eight students, one who took part in a four-day bicultural excursion to the other community (the exposure group), and one who did not. Factor analyses of the correlations within the exposure group identified three orthogonal factors, an 'integrative motive', 'parental attitudes', and 'interethnic interaction' factor. The parental attitudes factor shared some variance in common with children's indices of ethnocentrism (a negative relation), interest in foreign languages, and parental encouragement, showing some association between parental attitudes and general attitudes of children (cf. the earlier discussion of the study conducted by Gardner *et al.* 1970). A similar analysis of the no-exposure group also identified three factors, an integrative motive, parental attitudes, and French proficiency. In this case, the parental attitude factor did not receive contributions greater than .30 from any of the measures obtained on the children. This study, like the others, therefore, finds some support for the role of parents in second language acquisition, primarily among those children who took part in the excursion. Recall from an earlier discussion in this chapter that in a reanalysis of these data, Desrochers and Gardner (1981) found that parents of children who participated in the excursion expressed significantly more favourable attitudes toward French Canadians and French language study than did parents of children who did not participate. This would suggest that such language related attitudes are more salient in the homes of the exposure group, and possibly this accounts for the association between some children's attitudes and parental attitudes in this group.

In all of these studies, the most consistent pattern that is suggested is an association between parents' and children's general attitudes as opposed to specific ones, suggesting that it is the parents' passive role that may be the more effective one in the language learning context. There appears to be no clear relationship between children's perceptions of parental encouragement and parents' views; instead, children's attitudes tend to reflect a general familial orientation. Although the context is very much different, a very similar conclusion is suggested by research dealing with reactions to desegregation of schools in the United States. Stephan and Rosenfield (1978) found, for example, that 'four variables - changes in interethnic contact, changes in self-esteem, parental punitiveness, and parental authoritarianism - accounted for a substantial amount of the variance in changes in children's racial attitudes.' (p. 800). Parental opposition to integration (clearly a specific attitude) did not contribute to predicting attitude change among the children; instead it was general family attitudes as reflected in punitiveness and authoritarianism that were the major predictors. Parental opposition was only indirectly involved in attitude change because it influenced the amount of interethnic contact children had. Even in this context then, the major parental influence on attitudes seems to result from a general attitudinal atmosphere in the home.

Although the passive role may be the major determinant of attitude development or change among children, there is at least one study concerned with second language acquisition which suggests that parents' perceptions of encouragement relate more to the active role. Colletta (1982) investigated the relationship between parental encouragement as perceived by parents and other parental attitude measures. He factor-analysed the correlations among parental attitude measures and obtained two orthogonal factors which he identified as

the passive parental influence factor and the active parental influence factor respectively. The factor characterizing the passive role received its highest loadings (i.e., greater than .50) from measures of attitudes toward French Canadians, interest in foreign languages, an integrative orientation and desire to learn French. The factor reflecting the active role received its highest loadings from measures of parental encouragement, future orientation with respect to success in school and an instrumental orientation. The measure of parental encouragement also loaded on the passive parental influence factor but its loading (.42) was much lower than its loading on the active parental influence factor (.70). Thus, as might be expected, parental encouragement (as viewed by the parents) reflects both active and passive roles but perhaps more of the former than the latter.

Perceived parental encouragement

Much of the research on parental encouragement has focused on the child's perception of this encouragement, and, as indicated by two studies discussed earlier (Feenstra 1967; Gardner and Santos 1970), there may be very little relationship between children's and parents' assessments of this encouragement. Nonetheless, investigations of students' perceptions indicate that parental encouragement as seen by the children is related to their own attitudes and motivation. In their summary of the original development of the Attitude/Motivation Test Battery, Gardner and Smythe (1981) showed that parental encouragement obtained appreciable loadings on the integrative motive factor for each of the five levels of French achievement (Grades seven to 11). This pattern suggests that, at least from the point of view of the children, those who hold a positive and open mind to the acquisition of a second language for purposes of developing closer binds with the other language group experience more support from their parents. A very similar interpretation was suggested by the study by Desrochers (1977) discussed earlier. For both the students who went on the excursion and those who did not, perceived parental encouragement obtained high loadings on the integrative motive factor. For those who took part in the excursion, perceived parental encouragement also loaded on the parental attitude factor, suggesting possibly that in households where parents actively encourage their children in language study to the point of sending them to the other community for a brief trip, their attitudes are sufficiently salient to have their children perceive their encouragement proportional to their attitudes toward French speaking people and French study.

If parental encouragement (as seen by the children) is clearly related to their attitudes and motivation, it seems reasonable to ask if it is related to other aspects of second language acquisition. Table 6.1 presents correlations between children's perceptions of parental encouragement and grades in French for 29 samples, and behavioural intention to continue French study for 31 samples (grades were not available for three samples, and students did not have the option of dropping French in another). A consideration of Table 6.1 indicates rather clearly the potential role of parental encouragement. Obviously there is little, if any, relationship between perceived parental encouragement and grades in French. The correlations range from $-.24$ to $.26$, and only four of them are significant. The median correlation is $.05$. On the other hand, there is a much

Table 6.1 Correlations of parental encouragement with French grades, behavioural intention to continue French study, and motivational intensity

Area	Grade	French grades	Behavioural intention	Motivational intensity
1	7	.26**	.39**	.58**
	8	-.04	.17*	.33**
	9	.05	.24**	.28**
	10	-.01	.22**	.22**
	11	-.03	.14	.35**
2	9	.12	.28**	.39**
	10	.04	.26**	.32**
	11	-.16	.10	-.10
3	7	.06	.26**	.20*
	8	-.09	.35**	.39**
	9	.09	.33**	.40**
	10	.03	.31**	.29**
	11	-.14	.29**	.35**
4	7	.08	.14	.22*
	8	-.09	.42**	.31**
	9	.17	—	.26*
	10	-.24	.15	.16
	11	.08	.06	.19
5	8	.23**	.42**	.42**
	9	.01	.14	.26**
	10	.05	.26**	.44**
	11	-.03	.22*	.34**
6	7	.21**	.38**	.58**
	8	.12	.56**	.53**
	9	.10	.19**	.28**
	10	.02	.28**	.37**
	11	.04	.20**	.20**
7	7	—	.39**	.47**
	8	—	.32**	.47**
	9	—	.45**	.45**
	10	.15*	.30**	.32**
	11	.10	.32**	.44**
Median		.05	.28	.33

* $p < .05$

** $p < .01$

higher correlation between perceived parental encouragement and the intention to continue French study. Of the 31 correlations, 25 are significant, and the median correlation is .28 (range is .06 to .56). From the point of view of the students, they will continue to study French if they believe their parents support them.

Table 6.1 also presents the correlations between children's perceptions of parental encouragement and their own assessment of their motivational intensity. As can be seen, such parental encouragement has clear motivational properties. The correlations range from $-.10$ to $.58$ with a median of $.33$. Only three are not significant, and these tend to occur with the older samples where perhaps the concept of parental encouragement is less meaningful. Clearly the correlations of parental encouragement with both motivational intensity and behavioural intention to continue French study tend to be lower with the older students.

The true parental role: an interpretative summary

The analysis in the preceding section helps, I believe, to indicate the true role of the parent in the second language learning situation and to bring together much of the material discussed in this chapter. The children's perception of their parents' support is not directly related to their performance in class, though it is related to their willingness to continue language study and in their own assessments of how hard they work to learn the second language. As indicated earlier, this perception of parental support may or may not agree with their parents. Parents are clearly important socializing agents, but they present their children with a vast array of messages about the importance of language study, their expectations concerning performance, their own feelings about the other language community, etc. Parents who feel that the instrumental value of language study is most important tend also to feel that they provide the most encouragement, but it is the parents with favourable attitudes toward the other community and language learning that promote cultural exchanges. This reflects the active and passive roles of parents as described earlier. In many cases these two roles are probably in close harmony, but where they are not, it is perhaps the passive role that is the more effective. It seems possible that the passive supports, the generalized attitudinal reactions toward the other community, language acquisition, etc., are what are remembered most when children reflect on their parents' encouragement, and perhaps these give rise to the development of integrative motivational characteristics that have been shown to facilitate second language acquisition.

This tends to suggest that the more potent role of the parent is the passive one. Though we, as parents, may feel that we are fulfilling some function when we encourage our children to complete their language homework or study for an examination, it is quite probable that this is a short range intervention which may or may not be perceived or remembered as such by our children. After all, parents often encourage their children to do homework in all classes and to study for all examinations. As indicated earlier, parents' perceptions and children's perceptions of encouragement are not correlated and, if anything, such perceptions are more likely to vary with the parents' attitudes toward the other language group and language study. A reasonable conclusion, that is even

consistent with the more general area of attitude development, is that the provision of a warm and supportive environment which encourages within the child the development of an integrative motive toward language study will have a clear effect on second language acquisition.

7

The process of second language acquisition: focus on theories

Overview

There are a number of theoretical models concerned with explaining the development of competence in a second language. None of them, however, would qualify as a theory in the strict sense of the word since not one of them comprises formal axioms, nor do any of them generate unequivocal predictions. Instead, each emphasizes certain concepts, sometimes in specific circumstances or contexts, and attempts to organize or interpret data, much of which has been referred to in earlier chapters. They are descriptive, rather than predictive models, and all are often susceptible to different interpretations. Although such flexibility might be criticized, it has its advantages in that it prevents a dogmatic adherence to concepts which may prove restrictive. Each of the theoretical models offers insights, and each has its limitations. In the long run it will probably be shown that a theory incorporating elements from each of these models and others yet to be proposed will adequately reflect the process of second language acquisition.

This chapter examines in some detail seven theoretical models which appear to have direct relevance to an understanding of individual differences in second language acquisition. In each case, the major aspects of the model are described, and to facilitate understanding a schematic representation is provided. For three models these representations are taken or adapted from the articles describing them. For the remaining four, the figures have been developed especially for this chapter.

The models are presented in two major sections. The first section describes three models which have a common focus on linguistic process. That is, although they address the issue of individual differences in second language achievement, they do so at a rather molecular level, directing attention to the hypothesized processes operating on the individual when confronted with the task of learning or using a particular language form. In this category Krashen's (1978; 1981; 1982) monitor model is presented first because it seems to have provided the basic structure from which the other two models are derived. Two additional models of this genre are also described. One was presented by Carroll (1981) and is here referred to as a conscious reinforcement model. The other was described by Bialystok (1978) and is referred to in this chapter as the strategy model.

The second section includes four theoretical models and has a social process focus. These models are also concerned with individual differences in language

learning, but they deal with the phenomenon at a somewhat more molar level and consider the generally social psychological variables that facilitate or impede second language acquisition. Lambert's (1963a; 1963b; 1967; 1974) social psychological model is presented first because it appears to provide the rationale which underlies the other models. The three other formulations described in this section are Schumann's (1978a; 1978b) acculturation model, Clément's (1980) social context model, and the intergroup model (Ball and Giles 1982; Giles and Byrne 1982; Ball, Giles and Hewstone, in press).

The two different perspectives, the linguistic and the social, are important, I believe, because they emphasize the two fundamental aspects involved in second language acquisition. On the one hand, the process of acquiring a language (be it first or second) involves taking on vocabulary, grammatical functions, pronunciations, and to some extent an altered or at least influenced view of the world. It is clearly a linguistic phenomenon. On the other hand, the acquisition of a language involves a social adjustment on the part of the individual. Languages are acquired in order to facilitate communication, either active or passive, with some cultural community. When a second language is involved, this necessitates some form of interest in another cultural community. It requires introduction to *their* vocabulary, *their* way of ordering words, *their* way of pronouncing things, etc. Regardless of whether or not students have any desire to integrate with the other group (which generally would not be very pronounced for most school children), they nonetheless are forced with having to cope with material characteristic of another cultural community. Emotional adjustments are involved, and these are socially based.

The linguistic process focus

The monitor model

Strictly speaking, this is a theoretical model of language performance rather than language acquisition, but it has direct implications for the acquisition process, and in fact develops from assumptions concerning what takes place when language skills are being developed. This model (Krashen, 1978; 1981; 1982) posits that there are two independent language systems, one conscious and the other subconscious, and that both can be activated in any language use situation. The monitor itself is viewed as a 'conscious grammar', and often the two terms are linked or used interchangeably. In language situations when the monitor is operating, this is characterized by the language user paying attention to language form rather than content and consciously editing his/her language. Krashen (1981) describes three aspects of monitor use (see also Krashen 1982, 15-20). First, it needs time. When time is not available, as in normal conversation, the monitor cannot generally be brought into play ('performers do not generally have time to think about and apply conscious grammatical rules' (p. 3)). Second, it is activated where form and correctness of language are important to the user. Third, it reflects a direct application of language knowledge to language behaviour. As Krashen (p. 3) states, 'An important third condition for successful Monitor use is that the performer needs to know the rule, he or she needs to have a correct mental representation of the rule to apply it correctly'.

The relevance of this model to second language acquisition rests in its implications for language behaviour and the fact that Krashen involves it in his distinction between two types of language development, namely, 'language acquisition' and 'language learning'. In this model, 'Language acquisition refers to the subconscious system. It is very similar to the process children use in acquiring first and second languages. It requires meaningful interaction in the target language – natural communication – in which speakers are concerned, not with the form of their utterances, but with the messages they are conveying and understanding' (Krashen 1981, 3). Language learning, on the other hand, refers to the conscious system. It 'is thought to be helped a great deal by error correction and the presentation of explicit rules' (p. 2). In other words, language acquisition is a subconscious process that results from active use of the language, whereas language learning is a conscious process of rule learning. This distinction has important implications for both language teaching and the development of competence in the second language. As Krashen states, 'The acquisition-learning distinction helps interpret findings in all areas of second language acquisition research and practice.' (p. 12).

Krashen (1981) uses this distinction to explain the relative independence of language aptitude and attitudinal/motivational variables, even though they both relate to proficiency in the second language. He proposes that language aptitude relates more to conscious language 'learning', while attitudes (which to him include attitudes, motivation, self-confidence and anxiety (Krashen 1982, 31) are involved primarily in subconscious language 'acquisition'. Since they are involved in the two different aspects of language development, they can be independent of each other. He argues, further, that the distinction explains why language aptitude relates more highly to some measures of second language proficiency, while affective variables such as attitudes, motivation, self-confidence and anxiety relate higher to others. Since language aptitude involves cognitive abilities, it will relate relatively highly to indices of second language proficiency involving monitoring or to any material acquired through rule learning. Thus, any measure of proficiency which focuses on form (e.g., grammar tests, the Cloze procedure), or any that tests school-taught skills directly (e.g., measures of vocabulary drills from the textbook) should correlate more highly with measures of language aptitude. Affective variables should correlate more highly with 'Monitor-free measures of proficiency' (p. 26) or any measure which is dependent upon material acquired in natural communication environments. As we have seen earlier, research tends to support these generalizations.

The distinction between language acquisition and language learning also tends to account for other research findings. For example, (a) it can explain why some studies, discussed by Krashen (1981), indicate that formal learning environments are better than informal ones for developing language proficiency while other studies obtain the opposite; (b) it can explain those situations and skills where the first language interferes with learning the second; (c) it can explain why adults appear to learn a language faster but children acquire more; and (d) it can explain why some factor analytic studies of second language proficiency identify only one language factor while other studies identify two or more. In each instance the explanation depends on the distinction between language acquisition and learning in that they involve two independent systems.

These could be differentially implicated, depending on the situation (i.e., language context (a), or age (c)) or the identification and assessment of skills could involve only one or both systems (i.e., (d)) or previous rules could interfere with new ones (i.e., (b)).

An important aspect of the model in the present context is that the good language learner is an acquirer who may or may not be a conscious learner and, therefore, a monitor user. According to Krashen (1981), an acquirer is a person who is able to obtain a sufficient intake of the language and whose attitudes and motivations do not act to interfere with or filter out this intake. This notion of an affective filter was suggested by Dulay and Burt (1977). With respect to the monitor model, the affective filter refers to 'motivations and attitudes (which) if they are less than optimal may filter out certain aspects of the input. . .' (p. 110).

Although the monitor model has many potential implications, its major aspects are presented schematically in Figure 7.1. As Krashen (1982, 9) states, '...the true causative variables in second language acquisition derive from the input hypothesis and the affective filter – the amount of *comprehensible input* the acquirer receives and understands, and the strength of the affective filter, or the degree to which the acquirer is "open" to the input.' The development of language proficiency begins with language input, that is, language 'input that is understood' (Krashen 1981, 102). Aptitude will interact with this intake and facilitate conscious language learning. Attitudes and motivation, on the other hand, will be most influential in unconscious language acquisition, largely because low levels of these attributes will act as affective filters on language intake. Language learning, furthermore, will be reflected primarily in tests and situations which permit or encourage conscious monitoring of language behaviour, while language acquisition will be demonstrated mostly in spontaneous language behaviour in which the monitor is not necessary.

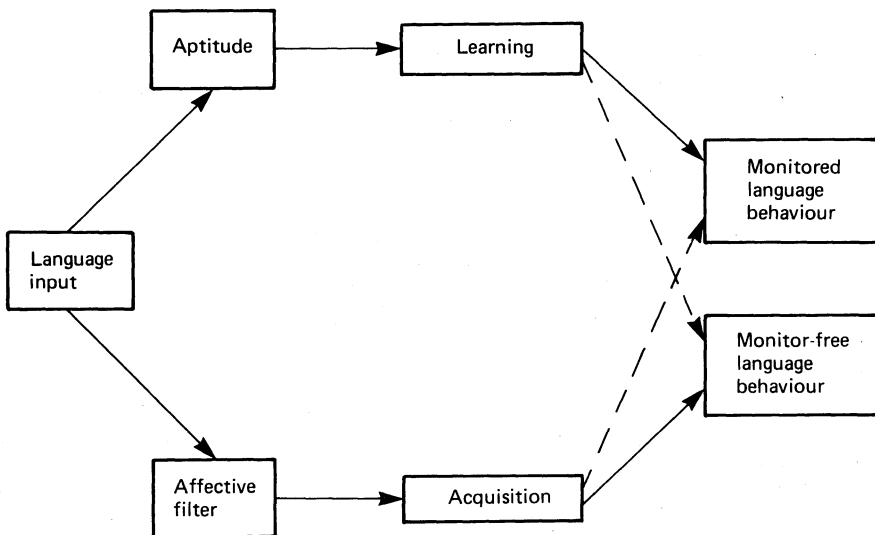


Figure 7.1 The monitor model.

The distinction between acquisition and learning is not to be confused with acquisition contexts. Krashen (1981, Chapter 8) provides a very clear and interesting description of how acquisition can occur even in the formal classroom situation. In fact, he differentiates between drills that focus on learning, such as grammar exercises, and those that emphasize acquisition, such as communicative exercises. Some drills could have both outcomes (an important aspect of the language input concept), and possibly, from the description, some individuals might achieve acquisition even during conscious learning exercises. In this context, language aptitude plays its major role in the conscious development of language skill and knowledge, whereas the affective filter (influenced by attitudes, motivation, self-confidence and low anxiety (Krashen 1982, 31) plays its primary function in the development of an unconscious use and appreciation of the language.

The conscious reinforcement model

Carroll (1981) has proposed a model of language acquisition which is based to a considerable extent on traditional learning theory and present-day cognitive psychology. It is classified here as a linguistic process model because, like the others in this section, it attempts to understand the process of second language learning (or acquisition – the distinction used by Krashen no longer applies) in terms of factors operating on the individual at the time he or she is faced with some new language material. It makes no formal statement about language acquisition contexts though it does indicate how behaviour would differ in formal classroom learning situations (which he terms artificial contexts) and the natural environment. A major concept in the theoretical model is reinforcement, though, as Carroll emphasizes, it is radically different from the concept as used by Thorndike in his law of effect. The traditional view treated reinforcement as an automatic strengthening of a response at the time it occurred if it resulted in a desired goal. Carroll (1981) takes a more cognitive view, proposing that reinforcement involves an increment to an individual's perception of the appropriateness of the behaviour to a specific context. It is knowledge of the world that is reinforced, not a particular response.

The major components of the conscious reinforcement model are presented schematically in Figure 7.2. In this model, language learning begins when the individual has an intent to communicate something. This intent, along with situational demands and information gained from previous similar situations, operates on the individual's performance grammar to produce a response. That is, the individual chooses what he/she considers to be the most appropriate response in that particular situation based on his/her knowledge, and if the response is instrumental in achieving the desired goal it is strengthened (i.e., reinforced). This reinforcement has two consequences. On the one hand, it tends to increase the probability that the response will occur again in similar situations; that is, it will become habitual. On the other hand, it leads to information about the nature of the language itself and the appropriateness of this response in certain contexts. This information, in turn, can be used in the performance grammar to produce responses for future intents. If the response does not achieve the communication goal, a number of things may happen. The response might be used again, but the probability of this happening is lower than

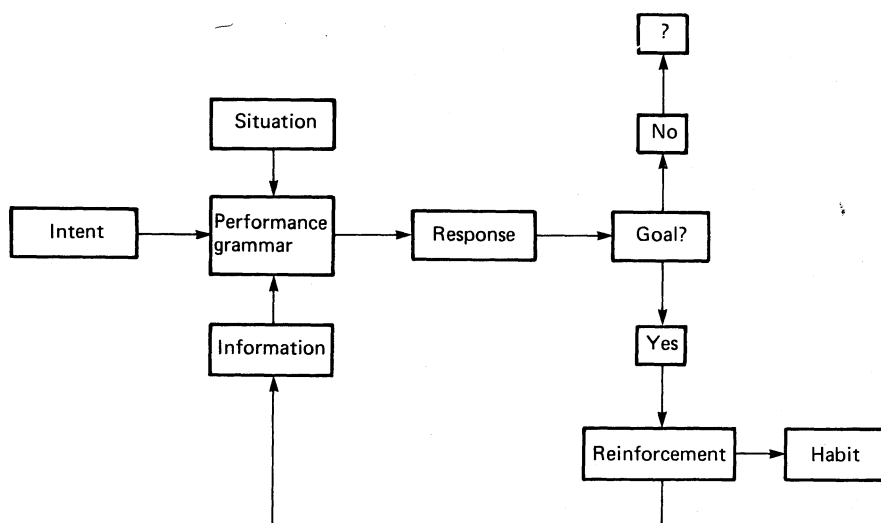


Figure 7.2 The conscious reinforcement model.

it was the first time. Alternatively, the response may occur again but in a modified form, or the response simply may not be used again.

The point is that in the conscious reinforcement model language acquisition is viewed as a very complex decision-making process where the individual searches for appropriate responses in order to communicate, and those that achieve the goals are acquired and subsequently automatized. As these language habits become stronger, the role of deliberate attention to the act of communication decreases. To a considerable extent this aspect of the model is similar to aspects of Krashen's monitor model in that it suggests that conscious processes may or may not be implicated in language behaviour depending on the level of proficiency as well as other demands placed on the communicator.

The models are also similar in that, whereas Krashen postulates the existence of a language monitor as a type of rule control body, Carroll assumes the existence of a performance grammar, a type of cognitive control centre. The performance grammar, however, is presumed to operate primarily when languages are being learned. In fact, like Krashen's (1982) input hypothesis, it appears to be similar to Chomsky's (1965) language acquisition device (LAD), an hypothesized innate characteristic of mankind which promotes language development.

Carroll's model is a theory of both first and second language acquisition. The processes are assumed to be the same, only the types of information the learner uses and the degree of automatic proficiency attained would normally differ. Carroll also feels that the situations and information would differ in natural and artificial language learning contexts. In the natural setting, he argues that most of the information available to the learner is observational. The young child, for example, sees and hears others communicating about certain objects in certain contexts and sees the consequences. This information is then available for him

or her in later similar contexts. There is some instruction in the natural setting, but this is generally of a simplified nature and less frequent. In artificial contexts like second language classrooms, the opposite is the case. Most attention is directed toward instruction, and the learner has relatively few opportunities to view others in communication settings or to experience self-related communication. More is learned about the language, its vocabulary, grammatical principles, and the like, and there is very little opportunity to develop meaningful language habits. These differences between natural and artificial language learning contexts are, however, related to the situations themselves and not whether the language being acquired is the first or second. Carroll argues that such 'natural contexts' can be simulated for the second language student but that they require much more attention to actual communication than often occurs in many classrooms.

The strategy model

Bialystok (1978) has proposed what I have termed a strategy model of language learning (see also Bialystok and Fröhlich 1977). She claims that the model accounts for individual differences in success in language learning as well as for differential skill development within the same individual. In point of fact, however, the model seems best suited for the latter objective. Individual differences in acquisition are explained primarily in terms of efficiency with which the model operates for the individual. She states, for example, 'Thus an optimal set of individual characteristics may yield greater achievement in second language learning but the mechanisms for the attainment of that proficiency and the strategies available for its enhancement would be identical for all second language learners regardless of their competence' (p. 80).

A schematic representation of the major aspects of the model is presented in Figure 7.3. It is adapted from Bialystok (1978, 71). The model refers to three levels or stages, input, knowledge, and output. Input involves any language exposure, be it from the formal classroom, reading material, communication experiences, etc. This exposure potentially provides for three types of knowledge, namely, any knowledge relevant to the second language (other knowledge), conscious knowledge about the language code (explicit linguistic knowledge) and intuitive automatic knowledge of the language (implicit linguistic knowledge). In the figure these three types of knowledge are joined by solid lines to language exposure to indicate a process link. That is, language exposure gives rise to at least one of these types of knowledge. Output refers to the product of language comprehension or production and is seen to share a process link only with implicit linguistic knowledge. That is, language output is largely mediated by implicit linguistic knowledge which is the system underlying most language behaviour. In Figure 7.3 output is represented in general terms by a response, R, but two types of response are possible. Type I responses are spontaneous or immediate, while Type II responses are deliberate and require some time to be emitted.

This characterization describes the major processing involved in language acquisition and/or behaviour. The dashed lines reflect language learning strategies of which there are four types. The first strategy is formal practising. Often in language acquisition situations individuals direct attention to learning

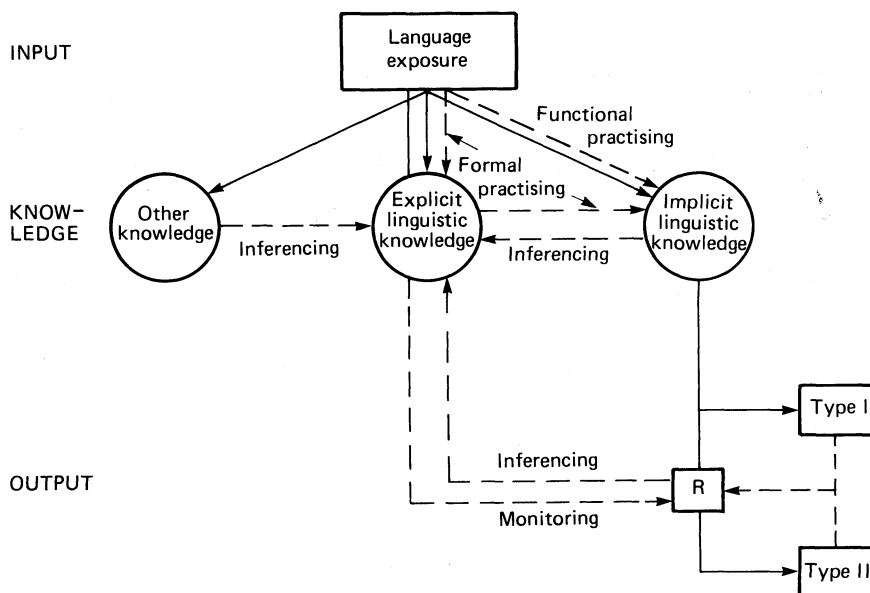


Figure 7.3 The strategy model.

more about the code itself (i.e., rules of grammar, pronunciation, etc.), obtaining material from some form of language exposure and making it part of their explicit language knowledge. In other instances, individuals might focus on language form (e.g., pronunciation, linguistic patterns) but, by repeated practice, attempt to make it more automatic. That is, they are concerned with transferring knowledge from explicit linguistic knowledge to implicit linguistic knowledge. These two types of language learning strategies are indicated by the dashed lines labelled formal practising in the model.

The second strategy is functional practising. This involves increased language exposure in order to improve communication. Examples of functional practising are communicating with speakers of the other language and attending movies, where the focus is on direct language use and practice rather than on learning about the code. This strategy is shown as the broken line linking language exposure to implicit linguistic knowledge since the consequence is to improve language automaticity. This is comparable to Krashen's (1977) concept of language acquisition.

The third strategy is monitoring, which is primarily concerned with language production. It is indicated by the broken line linking explicit linguistic knowledge with the language response, R. It involves considering and modifying language behaviour based on a knowledge of the code, and, since this requires some time, it is linked primarily with Type II responses. Conceptually then this is similar to Krashen's notion of language learning.

The fourth strategy is inferencing. This is applied mostly to comprehension and involves acquiring some explicit knowledge about the language code. There are three types of inferencing strategies shown in Figure 7.3. First there are those

inferences made on the basis of other knowledge, as when a grammar rule is inferred from knowledge of another language. This is shown as the strategy linking other knowledge to explicit linguistic knowledge. Second, some inferences are made based on the implicit knowledge of the language, and this is indicated by the strategy linking implicit linguistic knowledge to explicit linguistic knowledge. Third, some inferences are made from the language response itself, as when the meaning of a word is derived from the context in which it is being used; this is depicted by the strategy linking the response, R, to explicit linguistic knowledge.

This model also has implications for language learning and the assessment of proficiency (see, for example, Bialystok and Fröhlich 1977; 1978; Bialystok and Howard 1979). Like Krashen, Bialystok suggests that different language tasks involve different processes and strategies. For example, grammar tests focus on the process linking language exposure to explicit language knowledge; they involve an assessment, not only of explicit language knowledge, but also the monitor strategy. Since time is involved in determining the appropriate answer, this would involve a Type II response. This type of analysis places considerable attention on the nature of the assessment device. Not all tests tap the same knowledge or, more importantly, the same process. It would follow, therefore, that not all tests of language achievement would correlate equally with measures of other psychological variables related to second language learning.

The social process focus

Four theoretical models are discussed in this section. They differ from those presented earlier in that they are concerned less with the details of language behaviour and more with the social factors that motivate individuals to learn languages or prevent them from doing so.

The social psychological model

Lambert's (1963a; 1963b; 1967; 1974) social psychological model of second language acquisition is a theory of bilingual development and self-identity modification. Although the basic tenets of the model have not changed over the years, it has been expanded to account for more data as they become available. (For an excellent compendium see Dil 1972.) The central proposition in this theory is that 'linguistic distinctiveness is a basic component of personal identity. . . ' (Lambert 1974, 96). As a consequence, the development of proficiency in a second language has implications for the individual's self-identity, and, in turn, the individual's self-identity has implications for second language acquisition.

This perspective is demonstrated very clearly in an observation made by Lambert in conjunction with his early studies on developmental aspects of bilingualism (Lambert 1955; 1956a, b, c). He noted one graduate student in French who stood out from all others in that he was much more similar linguistically to native French speaking individuals. On further examination, Lambert found that this individual identified heavily with the French community to the extent

that he read mostly French newspapers and intended one day to emigrate to France.

Lambert (1974) draws on earlier research by Lambert and Klineberg (1967) to argue that the importance of linguistic distinctiveness originates early in the socialization process. Parents initially promote this distinctiveness by making contrasts between their own and other cultural communities in order to help their children understand who they are. Schools reinforce these perceptions in curricula that are aimed at preparing students for society. The result is that language comes to be an important part, if not the central part, of the individual's self-identity.

Lambert (1967) argued that students learning a second language 'must be both able and willing to adopt various aspects of behaviour, including verbal behaviour, which characterize members of the other linguistic-cultural group' (p. 102). This obviously involves both cognitive and affective components, and Lambert (1963a) has emphasized that cognitive factors such as language aptitude and intelligence as well as affective factors such as attitudes and motivation (Lambert 1963b) are undoubtedly implicated in second language acquisition. His theoretical model, however, focuses primarily on the role played by affective factors.

Figure 7.4 presents a schematic representation of the major elements of the social psychological model of second language acquisition. This model proposes that the extent to which an individual successfully acquires a second language will depend upon ethnocentric tendencies, attitudes toward the other community, orientation toward language learning, and motivation. In the figure this is shown as two major types of variables, attitudes and orientation (including ethnocentric tendencies) and motivation.

A distinction is often made between two types of orientations, integrative and instrumental. An integrative orientation toward language study reflects 'a sincere and personal interest in the people and culture represented by the other group' (Lambert 1974, 98). An instrumental orientation emphasizes 'the practical value and advantages of learning a new language' (p. 98). The integrative orientation thus stresses an emotional involvement with the other

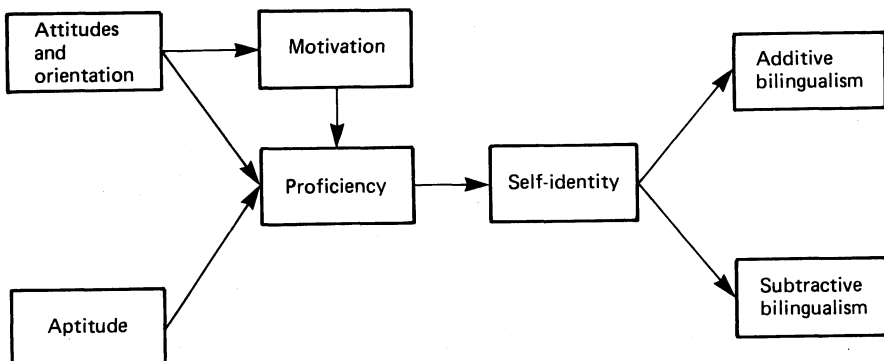


Figure 7.4 The social psychological model.

community, while the instrumental orientation does not necessarily. Although these two orientations are given most attention in the model and in the research associated with it, they are not seen as the only two alternatives. Lambert (1963b) proposed that 'In other circumstances, one might consider learning another group's language as a means of getting on the "inside" of a cultural community in order to exploit, manipulate or control, with clearly personal ends in mind.' (p. 114). That is, a machiavellian orientation could, in Lambert's conception, also serve as a reason for language study. Because of this it seems most parsimonious not to distinguish between types of orientations in the schematic representation and, instead, consider them as a unit with attitudes.

Since the integrative orientation reflects a positive non-ethnocentric approach to the other community, it might be expected to relate more directly to attitudinal reactions toward the other language group as well as to the motivation to learn the second language. Some studies do, in fact, demonstrate that this is the case (see, for example, Gardner and Lambert 1959). Situational factors could, however, moderate these relationships. Furthermore, the integrative orientation is not necessarily the only one which will promote language acquisition. In some contexts an instrumental orientation may be more influential. In fact, Lambert (1974) suggests that the integrative orientation would be more influential for North American students of foreign languages, largely because the instrumental orientation has little motivational significance, whereas, for individuals (such as minority group members) faced with the necessity of learning a prestigious language, the instrumental orientation could be the more important.

In Figure 7.4, attitudes refers to any attitudinal reactions involving the other language community including non-ethnocentric tendencies, orientations refers to any class of reasons for learning the language, and aptitude refers to any class of cognitive abilities, including intelligence and language aptitude. As discussed earlier, attitudes and orientation are grouped together as a unit and are shown (by the direct arrow) to influence the student's level of motivation to learn the second language, while attitudes and orientation, aptitude, and motivation are also shown to have a direct effect on language proficiency. Once proficiency develops to a high level, it is shown as having an influence on self-identity which, depending upon the nature of the cultural context, will result in additive or subtractive bilingualism.

As depicted in the figure, when individuals develop proficiency in the second language, they may begin to experience changes in their self-perceptions. Lambert (1974) states, 'For the serious student who in time really masters the foreign language, we saw the possibility of a conflict of identity or alienation (we used the term "anomie") arising as he became skilled enough to become an accepted member of a new cultural group' (p. 98). That is, with proficiency in the language comes the possibility of changes in self-identity. The nature of what type of changes may appear depends upon a number of factors including the individual's orientation, but a major factor would seem to be the pressures exerted by the community on the language learner. If learning the second language involved the development of proficiency in that language with no pressure to replace or reduce the importance of the first language, the result is an example of *additive* bilingualism. Under such conditions, the learner may experience changes in self-identity, but these would quite likely reflect positive

growth. If, on the other hand, the second language were being acquired to promote cultural assimilation as where minority groups are encouraged to learn a national language, this would be an instance of *subtractive* bilingualism. In the process of learning the second language, there is a threat to the first one, and such pressures could produce feelings of loss of cultural identity and the resulting alienation.

This model is somewhat different from the preceding ones, which emphasize the linguistic features because, in addition to considering the role of individual differences in developing language proficiency, it also raises the possibility that language acquisition can have social implications on the individual. As we shall see, the social process models all concern themselves with the effects of cultural factors on second language acquisition as well as the adjustment demands such acquisition places on the individual, though they differ to some extent on the nature of the factors. This, however, appears to have been the first model to make such associations explicit.

The acculturation model

Schumann's (1978a; 1978b) acculturation model is concerned solely with identifying the major causal variables underlying 'natural' second language acquisition; that is, 'learning language without instruction and in the environment where it is spoken' (1978a, 27). Many of his arguments, however, also seem applicable to the 'artificial' context where languages are learned as in a school setting. Schumann's major proposition is that second language acquisition 'is just one aspect of acculturation and the degree to which a learner acculturates to the TL (target language) group will control the degree to which he acquires the second language' (p. 34). It will be noted that this proposition is similar to Lambert's (1963b; 1967; 1974) position which assumes that a primary requirement of second language acquisition is identification with the other community. It differs, however, in that it considers the many social factors that might play a causal role in this process.

Schumann (1978a; 1978b) presents a taxonomy of factors that influence second language acquisition. These include social, affective, personality, cognitive, biological, aptitude, personal, input and instructional factors, and Schumann (1978b) briefly describes research relevant to them. As his review shows, however, although the particular categories may appear to be relevant to second language acquisition, variables from them may play only minor roles. Focusing on two categories, for example, Schumann (1978b) states 'Of the nine personality and cognitive style factors discussed, only four – tolerance of ambiguity, self-esteem, field independence, and monitoring – have shown a relationship to second language learning' (p. 173). This was essentially what we found in Chapter 2; the evidence in favour of personality variables as consistent correlates of second language proficiency is not strong.

Schumann (1978a) argues that only two types of factors, social and affective, are the major causal ones in second language acquisition, and these two are subsumed by the larger construct of acculturation. Schumann defines acculturation as 'the social and psychological integration of the learner with the target language (TL) group' (p. 29) and differentiates between two types. Type one acculturation refers to the case where the individual is socially integrated

with the other community and psychologically open to the other language. Type two acculturation occurs where the individual views the other community as 'a reference group whose life style and values he consciously or unconsciously desires to adopt' (p. 29). Social interaction is involved in both types, but only in the latter does the individual strive to become like members of that community in more ways than linguistically. He argues that this extreme identification is not necessary for successful acquisition of the other language.

As indicated above, acculturation involves a number of social variables in the second language acquisition process. Assuming two groups, the target language group and the second language learning group, there are a number of social factors which influence contact between them (see Figure 7.5). From the perspective of the group learning the second language, these include social dominance patterns between the two groups, integration strategies such as assimilation, preservation and adaptation, enclosure (the extent to which the group is separated from the other by institutional boundaries), cohesiveness and size, intended length of residence in the community and cultural congruence and reciprocal attitudes between the two communities. These environment or social variables are hypothesized to influence the rate and extent of second language acquisition.

There is, however, an 'individual' component which influences second language acquisition subsumed by Schumann (1978a) under affective variables. These include language shock, cultural shock, motivation and ego permeability. In this context, language shock refers to the fear and apprehensiveness associated with trying to operate in a second and weaker (for the individual learner) language. Cultural shock is defined as 'the anxiety resulting from disorientation encountered upon entering a new culture' (p. 32). Motivation refers to 'the learner's reasons for attempting to acquire the second language' (p. 32), and a distinction is made between integrative and instrumental motivations. Finally, ego permeability is adapted from Guiora (1972) and refers to the

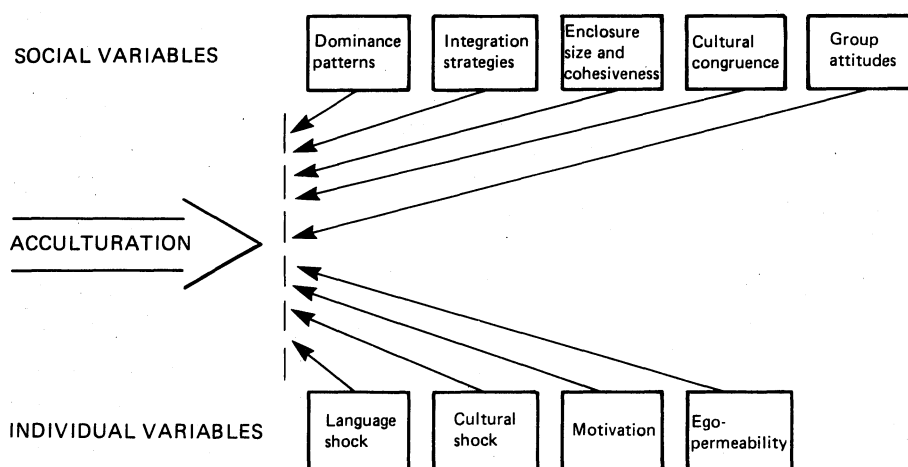


Figure 7.5 The acculturation model.

extent to which an individual's 'language ego' has flexible or rigid boundaries. It refers to the ability to empathize. Schumann (1978a) argues that 'if language shock and cultural shock are not overcome, and if the learner does not have sufficient and appropriate motivation and ego permeability, then he will not fully acculturate and hence will not acquire the second language fully' (p. 34).

As presented in Figure 7.5, this is essentially a model of language non-acquisition in that it describes a number of pressures acting on the individual to inhibit language acquisition. The model shows acculturation as a process moving forward, but with a series of social (group and situational) and affective (individual) factors which might impede acculturation, and therefore second language acquisition. As depicted in the figure, cultural congruence would imply that a lack of similarity acts as a barrier to acculturation. Similarly, the affective variables of motivation and ego permeability respectively would imply low levels of both to act as barriers.

Other factors listed by Schumann (1978a) in his taxonomy are not included in the figure since they are clearly viewed by him to be of secondary importance. He states, for example, 'The model proposed argues for acculturation and against instruction. It can also be seen to argue indirectly against aptitude because that factor is more associated with rate of acquisition in an instructional setting than with the degree of acquisition in the environment where the TL is spoken' (p. 48). In a similar manner he plays down the role of other variables, or feels that insufficient evidence is available to decide on their roles. His personal opinions are 'that personality and cognitive style will interact with acculturation, but will not dominate it' (p. 48), that 'Biological factors will only become meaningfully causal if it is found that certain kinds of neurological development cause language learning mechanisms to atrophy. . .' (p. 48), and that the personal factors incorporate many of the variables included in other categories.

As indicated earlier, Schumann outlined the model strictly for its application to natural acquisition contexts. It would seem, however, that it would also be applicable to language acquisition in school contexts though the intensity of some variables (e.g., cultural shock) would be diminished. Future research would profit from operationalizing many of these variables and making them applicable to the school context.

The social context model

Clément (1980) has presented a model of second language acquisition which I have here dubbed the social context model because it places considerable emphasis on the cultural milieu and the relative vitality of the language communities involved. This model assumes that second language acquisition includes not only the learning of language skills but also the adoption of other patterns of behaviour of the second language community. As a consequence, language acquisition is seen to involve changes in self-identity (cf. Lambert's social psychological model). A schematic representation of this model taken from Clément (1980) is presented in Figure 7.6.

The central concept in the model is motivation, which is seen to consist of two possible processes. Depending on the cultural background, either one of two, or both, processes are seen as important for language acquisition. Cultural settings where one of the two language communities has a low level of ethnolinguistic vitality as indexed by low levels of status, few speakers of the language and

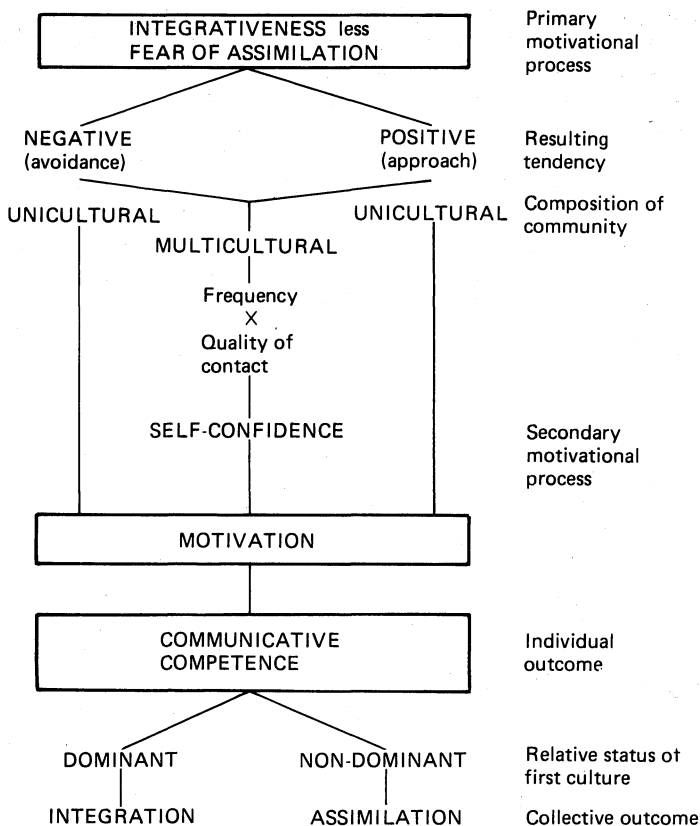


Figure 7.6 The social context model.

minimal institutional support (see Giles *et al.* 1977) are termed unicultural contexts. In these settings, the major motivating force is hypothesized to be the 'primary motivational process'. This primary motivational process is defined as the net result of two opposing forces, integrativeness ('the desire to become an accepted member of the other culture' (p. 149)) and fear of assimilation ('the fear that such belonging might result in the loss of the first language and culture' (p. 149)). Where the difference is positive, the primary process reflects integrativeness and a high level of motivation. Where the difference is negative, the primary process reflects fear of assimilation, and motivation to learn the language would be relatively low. This resultant is seen as a function of the individual's reaction to second language acquisition and its consequences. It is also, however, somewhat environmentally determined in that it represents the major motivational force in unicultural contexts.

Multicultural contexts are those in which ethnolinguistic vitality of both languages is relatively high. Both languages have comparable status, they are both well represented in the community and there is a reasonable level of institutional support. In these settings it is proposed that a 'secondary motivational

process' is implicated. This process reflects self-confidence with the second language and is seen to result from the interaction of the number of and nature of contacts with the other language community. Individuals with a high frequency of pleasant contacts will be high in self-confidence; those with a low frequency of pleasant contacts or a high frequency of unpleasant contacts will be low in self-confidence. In multicultural contexts, 'an individual's motivation would be determined by both the primary and secondary motivational processes operating in sequence' (p. 151).

In both contexts, motivation is seen as a primary determinant of competence in the second language though it is recognized that other factors, such as language aptitude, would have to be considered in a full theory of language acquisition. There are, furthermore, social implications resulting from the development of proficiency in the second language which in the model are seen to influence the primary motivational process. In settings where one language is dominant, second language acquisition has different social consequences for majority and minority group members. For members of the majority language group, learning the second language has integration as a social consequence. That is, individuals acquire a knowledge and appreciation of the other language and culture while maintaining their own cultural identity (cf. Lambert's (1974) concept of additive bilingualism). For members of the minority language group, however, the social consequences of second language acquisition is assimilation (cf. Lambert's (1974) concept of subtractive bilingualism).

These consequences of learning a second language have collective implications that help to define the social milieu *vis-à-vis* second language learning for members of both communities. That is, the expectations concerning the possible implications of learning the second language can be transmitted to young members of a language community, and these expectations will in turn influence their primary motivation processes. Individuals can be motivated by integrative feelings to learn the second language or by fear of assimilation to avoid learning the language. In this way, the social context is seen as an important factor in the language learning context. Not only will it influence which motivational processes will become important in second language acquisition but also the nature of the primary motivational process.

The intergroup model

Giles and Byrne (1982) have proposed an intergroup model of second language acquisition which focuses on the acquisition of a second language by members of a linguistic minority group. The central concept underlying this model is the self-concept, and the major motivating force is one of developing or maintaining a positive self-image. To a considerable extent, the model shares a conceptual similarity with Lambert's social psychological model and Clément's social context model. It also shares many themes with Gardner's socio-educational model to be presented in the next chapter. In fact, the model might be viewed as one concerned with describing the process underlying the motivation to learn a second language and, as presented, focuses largely on Gardner's concept of the integrative motive.

This formulation is clearly a hedonistic theory which stresses the maintenance of a positive self-concept. It is based on Tajfel's (1982) social identity theory (see

also Tajfel and Turner 1979) from which it derives many of its basic propositions. As a result, it is a more general theory than any other one discussed in this chapter, and it serves to bring relatively specific language learning models into the more general realm of social psychological theory – a development which has been needed for a long time. In this theory, social identity refers to an individual's self-knowledge in terms of his or her group memberships. In order to evaluate themselves, individuals identify with their groups and make social comparisons of their membership groups with others. Since individuals are simultaneously members of many groups, these social comparisons can take many forms and depend not only upon the groups which are salient at any one time but also the dimensions on which such comparisons are made. Social identity theory becomes relevant to the language acquisition context when the basis for group membership focuses on language. (It will be recalled that Lambert (1974) proposed that this is generally a salient issue because of the way in which children are socialized.) In terms of the theory, whenever the results of such social comparisons result in a negative self-concept, individuals will adopt a number of strategies in order to change the evaluation.

In applying social identity theory to second language acquisition, Giles and Byrne (1982) discuss factors which influence the salience of ethnic identification, focusing on three aspects: ethnolinguistic vitality, perceived group boundaries and multiple group memberships. The notion of ethnolinguistic vitality (Giles *et al.* 1977) is very important in this context, and although very little empirical research has yet been done on it, recent advances in procedures for measuring ethnolinguistic vitality (Bourhis *et al.* 1981) ensure that it will receive more study in the future.

In the intergroup model, attention is directed toward the ethnolinguistic vitality of the first language largely because it increases the salience of ethnic group membership. Perceived group boundaries are important in the model because where they are flexible individuals are free to move in and out of their group (linguistically at least). Finally, the concept of multiple group memberships is a necessary component of the model because it signifies that under certain circumstances individuals are able to identify with many groups if their ethnic identification is less important and salient.

Giles and Byrne (1982) identify five propositions which influence second language acquisition. They propose, however, that motivation is central to second language acquisition and that the integrative motive is the strongest form of motivation. In short, they agree with Lambert (1963b; 1967; 1974) and Gardner (1979; 1981) that the acquisition of a second language requires some form of identification with the other community. Ball and Giles (1982) identify the five propositions as follows:

People will see themselves in ethnolinguistic terms and strive for positive psycholinguistic differentiation from outgroups when they:

1. see themselves strongly as members of a group with language an important dimension of its identity;
2. regard their group's relative status as changeable;
3. perceive their ingroup's ethnolinguistic vitality as high;
4. perceive intergroup boundaries as hard;
5. identify with few other social groups, and ones which offer unfavourable social comparisons. (p. 5)

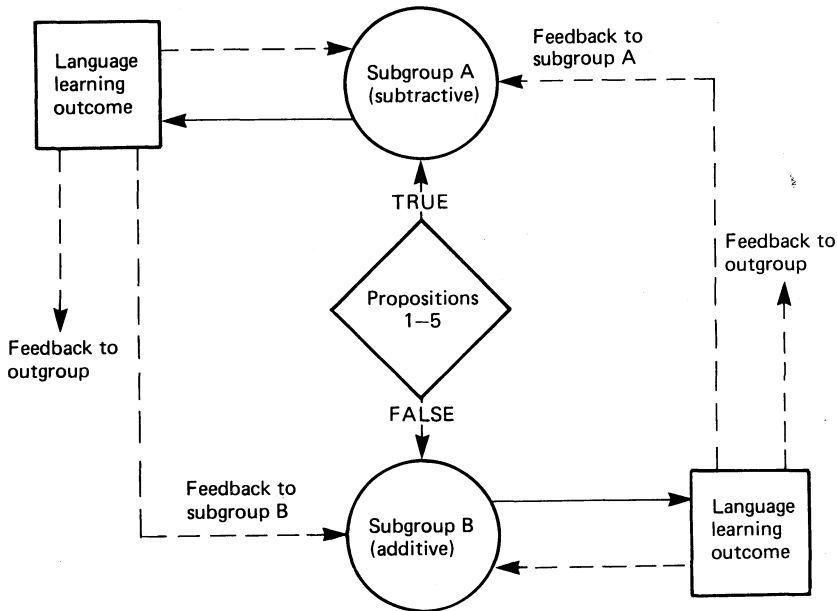


Figure 7.7 The intergroup model.

Giles and Byrne (1982) did not present a schematic representation of their model, but other publications (see Ball and Giles 1982; Ball *et al.* 1984) have included one. Figure 7.7 presents a version adapted from Ball and Giles (1982) though some explanatory material has been omitted from the figure and is discussed here instead. As presented, the figure differentiates between two subgroups of individuals. Those for whom the above five propositions are true are identified as subgroup A, while those for whom they are false are referred to as subgroup B.

Based on the propositions of this model, it is hypothesized that members of subgroup A will demonstrate a fear of assimilation and will tend to be relatively unsuccessful at learning the second language (cf. Clément's 1980 social context model). They will tend to avoid informal language learning contexts and develop proficiency only on those skills specifically taught in the formal classroom environment. This distinction between informal and formal language acquisition contexts is based on that suggested by Gardner (1979; see also Chapter 8), and Ball and Giles, like Gardner, propose that intelligence and language aptitude will be influential in determining individual differences in proficiency in the formal context. The model proposes further that members of subgroup A would perceive their 'ability' to develop proficiency only in school-taught language skills as an important component of maintaining their own cultural distinctiveness. It would be perceived by members of the majority group, however, as an indication that the minority group is inferior and by members of subgroup B as failure due to inadequate educational opportunities.

Members of subgroup B, on the other hand, would be integratively motivated, would seek informal learning contexts and would be relatively successful in acquiring the second language. Proficiency would be influenced largely by the individual's level of anxiety. The relative degree of success of individuals in this subgroup would be perceived differentially by different groups of people. Subgroup B members themselves would have their motivation increased by their success. Members of the majority group might feel threatened if they felt that their distinctiveness was being eroded, and members of subgroup A might feel that subgroup B members were betraying their heritage.

This model focuses on the underlying social forces that might operate in contexts where minority group members are acquiring a majority language. It is, as Ball and Giles (1982, 8) state, 'an interesting but untested model. . .' but one which differs from the others in that it incorporates the language learning context in a broader social psychological theory. Research will undoubtedly suggest changes to the model, but it has potential in broadening the base of the research. One question which might be investigated is the restriction of the model to minority group members. Although it is presented in this manner, this seems to be an unnecessary restriction. Just as minority group members might disagree in their perceptions of the alternatives, thus leading some to develop fears of assimilation and others an integrative motive, so too might majority group members perceive their group status differently. It seems quite probable that the dynamics reflected in this model are equally appropriate to any individual who includes linguistic distinctiveness as an integral part of his/her self-image.

Interpretative summary and conclusions

This chapter has presented seven theoretical models of second language acquisition. These are not, of course, all of the models that have been proposed, but they are a representative sample. They were selected because, in my opinion, each provides insights that are important to a complete understanding of the language learning process. In this section, I focus attention on four themes that occur in one or more of these models that I feel should be incorporated in any future attempts to explain second language acquisition. This requires some abstraction on my part because many of the themes are common to more than one model, but, because the models differ in their perspectives, concepts and terminology, this communality is not always obvious.

The first theme, which is common to all models, is motivation. Every model presumes that second language acquisition involves goal-directed, purposeful behaviour. Language users, or learners, as the case may be, either want to communicate information to others, to acquire some language skill or knowledge, to form some type of emotional association with others, or to enhance their own self-concepts. In some of the models, attempts are made to account for differences in motivation, while in others motivation is simply accepted as a given. In all cases, however, motivation plays a definite and obvious role, and this hedonistic view of second language acquisition deserves continued attention in future theoretical models.

A second theme focuses on the nature of this motivation. Although the terminology differs from one model to the next, all of them infuse the situation with

motivational prompts. In each model there is reference to a situational context in which there is a deliberate attempt to communicate material or to acquire sufficient proficiency to facilitate communication. There is, consequently, the implication that language acquisition involves the intent to communicate with someone else which reflects some level of social motivation. The various social process models describe in more detail, and often from different perspectives, factors which will facilitate or impede this social motivation, but in all cases it is there. Again this seems to be an important focus for future models. Some of the models described here refer to the artificiality of some situations and, hence, to some other motivational factors, but it is clear that these are seen as less conducive to second language acquisition.

A third theme involves the implications of second language acquisition. Obviously, language acquisition involves changes to individuals if only in their language skills and knowledge, but the majority of the models imply, or directly postulate, changes in the self-concept, view of the world, values, attitudes, etc. That is, in the process of taking on a second language, individuals are also required to make adjustments of a social nature. As we saw in Chapter 5, not all of the attitudinal/motivational changes that one would anticipate to take place as a result of the language training have been demonstrated empirically, but then again the nature of these proposed changes is not well detailed. Because of the social implications of second language acquisition, it seems reasonable that social adjustments take place and future models should continue, not only to consider them as part of the model, but should attempt to formulate more precisely the nature of the social changes anticipated and the factors responsible for them.

A fourth theme which is perhaps more focused in the linguistic process models but also implied in some of the socially orientated models is the notion that some language skills have different causes than others and that they also are reflected in some assessments of proficiency more than others. As a result, individual differences in these skills would be expected to relate to differences in other variables so that some measures of language proficiency may relate more to some non-language measures than others. That is, language proficiency isn't a unitary factor, and, even though the various aspects might be interrelated, it is reasonable to expect different correlates of different aspects. Depending then on the make-up of one's measure of second language proficiency, different patterns of relationships might be expected. This has been demonstrated many times in earlier chapters of this book, but the theoretical implications of this theme should be incorporated in future models.

There are undoubtedly other themes which might be extracted, but in my opinion these are the major ones. One feature that is not dominant in these models but which is of major importance is the susceptibility to empirical test. The models discussed in this chapter differ greatly in the extent to which they provide unequivocal predictions and involve operational definitions of variables which permit their reliable assessment. All of these models are descriptive as opposed to predictive. Each of them accounts for various empirical findings relating to the role of individual differences in second language acquisition. None of them, however, have been developed to the point where they could make unequivocal predictions and have their validity clearly tested. Exceptions are easily explained. In my mind, this is not a criticism of the models. It is simply

a statement of where we are. Rather than debating which model is superior, I believe we must progress to providing empirical tests. That was a major purpose of much of this book. In the next chapter this is carried one step further. A model is proposed and its adequacy assessed directly. To me, this is the necessary next step.

8

The socio-educational model: focus on an empirical foundation

Overview

The purpose of this chapter is to describe a model of second language acquisition which, although similar to those outlined in Chapter 7, is different in that it has associated with it a clear and direct link to empirical research. The model has been formulated such that the major variables can be defined operationally and assessed. As such, it can be subjected to empirical test. Much of this book has been concerned with data relevant to aspects of the model, but in this chapter studies are reviewed which are concerned with evaluating causal aspects of the model as an entire unit. This is a unique development in this area, and, by presenting this material, it is hoped that similar tests will be made of the other models as it is only by continued efforts at empirical verification that progress results.

Like the models described in the previous chapter, the socio-educational model is also concerned with the role of individual differences in second language acquisition. It has been developing since around 1960 (Gardner 1960) and has its formal roots in Lambert's social psychological model (see Chapter 7) and a model proposed by Carroll (1962) which was concerned with simulating the relative predictability of achievement in a second language by variables such as aptitude, intelligence, motivation and opportunity to learn. A major characteristic of the socio-educational model is that it has evolved in conjunction with research conducted to test aspects of it, and as a result the major variables underlying it have been the subject of many studies concerned with their identification and measurement.

This chapter traces the historical development of the socio-educational model of second language acquisition, discussing its major elements, indicating the links it shares with the models discussed in Chapter 7, outlining an operational statement of the model which permits direct test of the conceptual and causal links proposed, and describing studies which deal with the validity of this operational model and derivatives of it. In the process, I hope to emphasize that the model is still undergoing change and that its strength lies not only in its parsimonious explanation but also in its link to measured variables and its resultant amenability to verification.

Because the socio-educational model has an empirical foundation, it is possible to make use of relatively recent developments in causal modelling (Jöreskog and Sörbom 1978) to assess the validity of the constructs proposed and the reasonableness of the causal links hypothesized. This is one advantage

of this model not shared by those discussed in Chapter 7. Although these models offer many interesting insights which have distinct relevance to the language learning situation, and although they are often able to account for findings obtained in research, they generally lack the empirical foundation and link with measurement properties which permit such direct tests. These tests are necessary, however, if the level of theory is going to be raised above that of descriptive models, and theoretical formulations must be much more precise and predictive if they are to be of use in formulating plans to improve second language learning. The socio-educational model is not a final model, but it has many characteristics which are required in that final model.

The socio-educational model

The socio-educational model was first proposed in a form comparable to that presented here in 1974 in a final grant report authored by Gardner, Smythe, Kirby and Bramwell, and it was presented later in a related research bulletin (Gardner and Smythe, 1975a). This monograph was never published, however, and the model was reproduced in an article by Schumann (1975) who characterized the model as providing 'a powerful framework within which the dynamic social and psychological facts involved in second language acquisition can be understood' (p. 220). The model has undergone a number of revisions (see Gardner 1979; 1981; 1983) in order to take into account new information or to more clearly describe what appear to be the major processes operating. In general, however, all versions stress the idea that languages are unlike any other subject taught in a classroom in that they involve the acquisition of skills or behaviour patterns which are characteristic of another cultural community. It is argued that any other subject, such as mathematics, science, or history, involves the development of knowledge or skills which are a part of the heritage of the student's cultural community; a second language, on the other hand, is a salient characteristic of another culture. As a consequence, the relative degree of success will be influenced to some extent by the individual's attitudes toward the other community or to other communities in general as well as by the beliefs in the community which are relevant to the language learning process.

The model presented schematically in Figure 8.1 is adapted from Gardner (1979) and centres attention on four classes of variables: the social milieu, individual differences, language acquisition contexts and outcomes. The language acquisition process is viewed as involving a particular causal interplay of these four types of variables.

A central theme of the model is that second language acquisition takes place in a particular cultural context. It proposes that the beliefs in the community concerning the importance and meaningfulness of learning the language, the nature of skill development expected, and the particular role of various individual differences in the language learning process will influence second language acquisition. For example, it is argued that if the cultural belief is that it is very difficult to learn a second language, the general level of achievement will be low (a self-fulfilling prophecy), and moreover individual differences in achievement will be related to individual differences in intelligence, aptitude, motivation, and/or anxiety. If, on the other hand, it were expected that most individuals would learn a second language, the general level of achievement

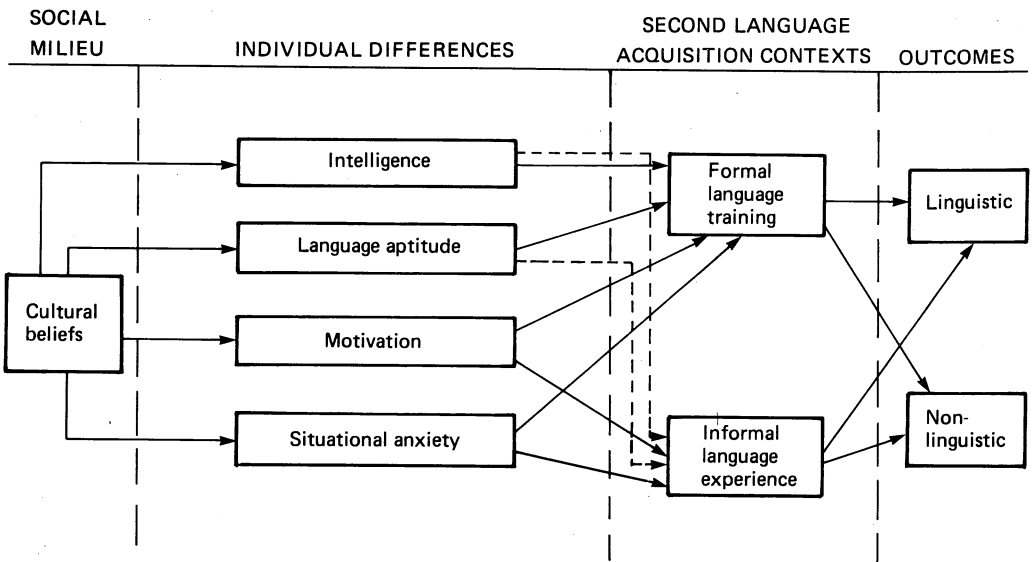


Figure 8.1 Schematic representation of the theoretical model.

would be high, and individual differences in this achievement would be more highly related to intelligence and aptitude than to the other variables. That is, the cultural beliefs will influence not only the general level of proficiency in a second language that will be achieved in a community but also, and more importantly, those factors that will influence individual differences in achievement.

Another theme is that, other things being equal, there are four different types of individual differences that will influence achievement directly, intelligence, language aptitude, motivation and situational anxiety. Obviously there is a host of other potential variables such as attitudes and personality, but the expectation is that they would have their effect through one of these variables. (Other versions of this model (Gardner 1981) have omitted the anxiety variable assuming that it operated through motivation, but it seems meaningful to treat it as a separate class in a full model.)

Each of these variables is viewed as important for different reasons. Intelligence is assumed to play a role because it determines how well or how quickly individuals understand the nature of any learning task or any explanations provided. Language aptitude, though correlated with intelligence, is defined as a series of verbal and cognitive abilities (cf. Carroll 1958; Carroll and Sapon 1959) that would play a role in language learning in that individuals with high levels of ability would be able to generalize these abilities to the new language (cf. Ferguson 1954). Motivation refers to the effort, want (desire), and affect associated with learning a second language and is seen as important in determining how actively the individual works to acquire language material. Finally, situational anxiety associated with the language itself is viewed as important

because it would have an inhibiting effect on the individual's performance, thus interfering with acquisition.

In the model it is proposed that these four classes of individual difference variables influence how well individuals perform in any situation where they have the opportunity to learn about or develop proficiency in the language. A distinction is made between formal and informal contexts, however, even though at times it is difficult to determine in which class a particular context belongs. It does seem meaningful, nonetheless, to distinguish between formal acquisition contexts in which the primary objective is instruction and informal contexts where there are some other objectives. An obvious example of a formal context is the language classroom, but any situation in which the individual receives training, explanations or drills would be characterized as a formal context. Informal acquisition contexts, on the other hand, refer to those situations involving the second language where instruction is not the primary aim. Examples would be listening to the radio, attending movies, talking with others and reading, where the intent is not instruction in the second language but rather exposure to it for some other purpose (e.g., entertainment or communication). Although second language skills might be acquired or strengthened in such contexts, this is not the primary purpose of the experience.

When contexts are distinguished in this manner, it emphasizes the different roles played by the four individual difference variables in acquiring the language. Since instruction is a central aspect of the formal context, all four individual difference variables would influence the learning process because of the reasons given above. Instruction is not, however, the objective of informal contexts. It is incidental. Students either opt in or out of informal contexts, and the extent to which they do would be expected to be influenced primarily by their degree of motivation and/or anxiety. Once students enter into an informal context, their level of intelligence and aptitude will influence how much language material is learned, but, since their effects are contingent upon the students entering the situation, they play secondary roles. This is indicated in Figure 8.1 by the broken lines linking intelligence and aptitude with informal contexts. These different roles would lead to the prediction that, whereas individual differences in all four attributes would be expected to relate to differences in achievement of skills developed exclusively in formal contexts, the relation of motivation and anxiety to achievement would be expected to be higher than those for intelligence and aptitude for skills developed exclusively in informal contexts. Such a prediction assumes that the base rate of association for the four classes of individual difference variables with second language proficiency is a constant.

The assumption concerning constant base rates of association for different variables is clearly not reasonable, however, in that it fails to take into account the interaction of the context on individual differences. Consider the language classroom, for example. It is possible to conceive of a situation where the language material is so poorly presented that, regardless of a student's aptitude, motivation, or anxiety, the major determinant of whether the material is learned would be the student's level of intelligence. As another example, it is possible to conceive of a situation which is made so interesting that motivation for the entire class is high. Under these conditions, individual differences in motivation

would be virtually non-existent, and individual differences in proficiency would be related more highly to the other three attributes. This type of conceptualization was employed by Carroll (1962) in his model for predicting achievement in complex learning tasks. He used computer simulations to demonstrate how different variables like intelligence, aptitude and motivation would predict achievement in different contexts. The important point is that the contexts are not homogeneous, and the nature of the context, like the nature of the cultural milieu, can influence the role played by individual difference variables in language acquisition.

Two outcomes are seen to result from the experience of learning a second language, and these would occur differentially depending upon experiences in both contexts. Linguistic outcomes refer to second language proficiency – vocabulary knowledge, grammar, pronunciation, fluency, etc. Non-linguistic outcomes, on the other hand, refer to attitudes, values, etc., that develop from the experience. These outcomes have important implications for subsequent language learning experiences, but it should be noted that they themselves are influenced by prior cognitive (intelligence and language aptitude) and affective (motivation and situational anxiety) characteristics. As we saw in Chapter 5, it is not a simple matter that success breeds favourable attitudes (or any other non-linguistic outcome). The product of any language learning context is the result of a dynamic interplay of the experiences and the prior cognitive and affective characteristics.

This realization permits an in-depth consideration of the concept of motivation which is not obvious from Figure 8.1. An integral part of this model is that attitudes involving other ethnic groups and the language learning situation underlie motivation. Attitudes are not, however, depicted in the figure simply because they are seen as determinants of motivation not of achievement. An important consideration, however, is that the acquisition of a second language is a long and arduous task so that any concept of motivation must include in it an attitudinal foundation that sustains the motivation. As was indicated in Chapters 3 and 4, the acquisition of a second language involves incorporating behavioural elements of another cultural community, thus, it is highly likely that one necessary attitudinal foundation would involve an open willingness to take on aspects of behaviour of another group. In the research this has been identified as integrativeness and is indexed by such measures as attitudes toward the other group, interest in other languages, and an expressed integrative orientation. Another attitudinal foundation would revolve around the learning situation itself. Because it is unique, it is probable that individuals' attitudes toward the learning situation assessed in terms of reactions to the course and teacher, etc., would also serve as a motivational support.

The model proposes, therefore, that when initially entering the language learning situation, generalized attitudes developed in the home and environment provide the initial motivational impetus (see Chapter 6) as well as general expectancies about a new course. Exposure to the language learning situation, however, tends to make these attitudes more salient. That is, they are non-linguistic outcomes which come into play in subsequent language learning experiences. Thus the model is not a static one but rather a highly dynamic model in which initial cognitive and affective variables influence an individual's behaviour in the language learning environment, and the interplay of these

variables with the context produce non-linguistic outcomes that influence subsequent affective variables in an ever continuing process.

Common themes shared by the socio-educational model with other models

It will be obvious that this model shares much in common with the seven models discussed in Chapter 7 even though often different concepts and perspectives are emphasized. Krashen's monitor model includes attitudes and motivation but differs in that it assumes that these help in some way to facilitate the input of information, whereas in the socio-educational model motivation is treated as an instigator to action. Both make the same prediction that attitudes and motivation will correlate with proficiency, but the nature of the process differs in experimentally verifiable ways. The monitor model adds a further dimension in differentiating between monitored and monitor-free language behaviour, suggesting a useful distinction to consider when studying different aspects of achievement. Again the prediction that attitudes and motivation will be more highly associated with monitor-free behaviour than will aptitude is experimentally testable. The socio-educational model assumes that communication measures (i.e., monitor-free language) will correlate more highly with attitudinal/motivational indices because they tend to be developed in informal contexts which tend to be more frequently used by the more motivated students.

Probably the model which seems most different from the socio-educational one is Carroll's (1981) conscious reinforcement one. Yet central to it is the notion of reinforcement, clearly a motivational concept as used in that model. Language behaviour is initiated by an *intent* to communicate information, and reinforcement occurs when the response produces a *desired* end. Although it is not discussed in the model, there is obviously some social reason underlying the desire to communicate. In addition, the notion of the performance grammar implies some cognitive component comparable to language aptitude and/or intelligence. All of these elements are contained in the socio-educational model.

Bialystok's strategy model has no explicit motivational construct. It does, however, imply that individuals must seek out language exposure. In addition, the notions of inferencing, monitoring and formal and functional practising indicate goal-directed behaviour, thus demonstrating a motivational component. Although Bialystok (1978) suggests that the same strategies are available to all second language learners, she does allow for the fact that some individuals may use them more efficiently than others. The model, therefore, is comparable to the socio-educational one in that it permits the operation of both cognitive and affective processes. The focus on strategies, however, could well uncover a host of cognitive-type variables worthy of further study; these would be best classified as aptitude variables in the socio-educational model.

Lambert's social psychological model led to the development of the socio-educational one, and many of the constructs are identical. One major difference is that the social psychological model predicts direct causal links between attitudes and orientations and second language proficiency, while the socio-educational one argues that this association is mediated by motivation. This distinction can be tested empirically, and in fact three studies (Gardner *et al.* 1983; Gardner 1983; Lalonde and Gardner 1984) suggest that motivation is a mediator. These are discussed further in a later section of this chapter. One

additional difference between the two models concerns the effects of proficiency on self-identity. This is not discussed explicitly in the socio-educational model, largely because this latter model is concerned primarily with students in the process of studying a second language and not necessarily with individuals on the road to becoming bilingual. The notion of changes in one's self-identity is not, however, inconsistent with the idea of non-linguistic outcomes of language study.

Schumann's acculturation model is concerned expressly with language acquisition in a natural environment, but nonetheless shares many concepts in common with the socio-educational model. Many of the social variables are comparable to cultural beliefs, and future research could profit by investigating more directly such variables in the context of social beliefs in the formal language learning situation. The individual variables such as language and cultural shock are conceptually similar to situational anxiety and might be shown to form a broader cluster. Motivation is a concept common to both models, and, although ego permeability sounds unique, it refers to the ability to identify with others and is, therefore, conceptually similar to the integrative component of motivation in the socio-educational model.

Clément's social context model includes many aspects of the socio-educational model as its constituents. It differs mainly in its focus on the cultural context as a determinant of the types of motivation that will be implicated in language learning, and the inclusion of fear of assimilation as an element of integrativeness. Research will undoubtedly clarify the status of these differences. It is possible, for example, that the self-confidence motivational process is subsumed under situational anxiety, and if this is the case, the empirical question is whether it is invoked only in multicultural contexts or whether it is a separate or linked affective component as described in the socio-educational model. Another aspect highlighted in the social context model is that of collective outcomes. This is a sociological concept not mentioned specifically in the socio-educational model, but one which would be associated with the outcomes of language study. The focus on the collective nature of these outcomes is important, however, because it helps to indicate how cultural beliefs are reinforced and maintained from generation to generation and at the same time how they could be changed gradually.

Giles' intergroup model is concerned solely with second language acquisition by minority group members, but as indicated this appears to be an unnecessary restriction in that the notion of ethnic identity seems applicable to all individuals regardless of the status of their own ethnic group in the community. All that is required is a situation which makes ethnicity salient to the individual, and one such situation could be the language learning context (e.g., recall that Turner (1974) argued that the language classroom aroused American students' feelings of in-group superiority). The intergroup model, like the socio-educational one, places considerable emphasis on integration with the other community as a major motivational construct. It also includes intelligence, language aptitude, situational anxiety, language acquisition contexts, and language learning outcomes which are common to the socio-educational model. As such, the two models are quite compatible.

As this brief analysis indicates, there are many points of agreement between the socio-educational model of second language acquisition and the models

reviewed in Chapter 7. Future model development might do well to consider the conceptual similarities. One point where the socio-educational model does differ from the others, however, is in operationalism, and the focus on measurement of underlying variables and concepts which permit direct empirical test of the model.

Empirical tests of the socio-educational model

Much of the material presented in earlier chapters constitutes tests of derivations of the socio-educational model. In Chapter 2 considerable research was described that demonstrated a link between cognitive variables such as language aptitude and measures of proficiency in a second language. Chapter 3 demonstrated generally consistent relations between attitudinal/motivational characteristics and measures of second language achievement, perseverance in language study, and even classroom behaviour, while in Chapter 4 a number of studies were described which offered support for an attitudinal/motivational link that has been referred to as an integrative motive. All of these relationships are expressly indicated in the socio-educational model. Chapter 5 considered possible non-linguistic outcomes that might follow from experience with a second language. As we saw, such experiences do have non-linguistic outcomes, but their effects on the attitudinal aspects of such outcomes are not pronounced. There are suggested effects for some experiences but not others. Clearly, this requires further study. Finally, Chapter 6 directed attention to the role of the parent in second language acquisition and thus focused on the initial part of the model and the role played by the social milieu. Although much more research is required, there is some evidence to indicate that the social milieu as reflected in the home environment can influence attitudinal/motivational characteristics and thus the child's relative degree of achievement in the second language.

There are other aspects of the social milieu which might be investigated. Earlier it was argued that expectations in the cultural milieu will influence both the relative degree of achievement attained by students in different cultural communities and the role played by different individual difference variables in effecting such achievement. Research dealing with either of these issues is difficult to conduct, and these hypothesized effects are inferred on the basis of general findings in this area. Gardner (1979) demonstrated, for example, that relations between measures of second language achievement and indices of aptitude, attitudes, motivation and anxiety differed in bilingual as opposed to monolingual regions. To conduct unequivocal research on such questions, however, requires tighter control of pedagogical techniques and course aims and more detailed procedures for measuring important cultural characteristics. We shall never be able to really control pedagogical procedures, nor should we; however, recent developments in the assessment of ethnolinguistic vitality (Bourhis *et al.* 1981; Giles *et al.* 1977) offer promising and relevant measures of the cultural characteristics which would aid such research considerably. Furthermore, new developments in analytic procedures, particularly those involving causal modelling, permit more detailed consideration of all facets of theoretical models that posit a causal chain of events such as those proposed by the socio-educational model.

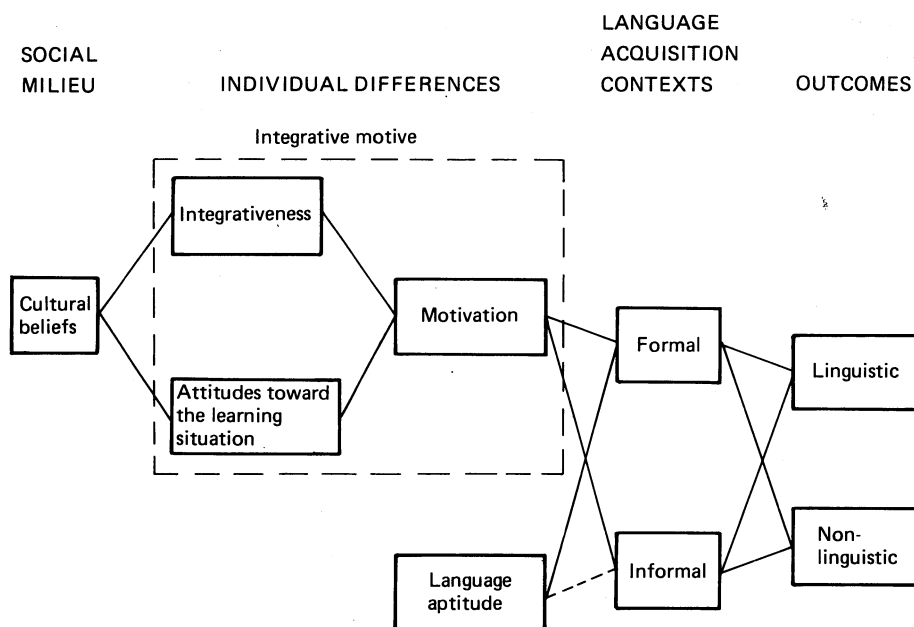


Figure 8.2 Operational formulation of the socio-educational model. (In the *Journal of Language and Social Psychology*.)

Operational formulation of the socio-educational model

Figure 8.2 presents a modification of the socio-educational model which emphasizes its major operational characteristics. The concept of the integrative motive is indicated as comprising the tripartite division of integrativeness, attitudes toward the learning situation and motivation. As depicted, both integrativeness and attitudes toward the learning situation are seen as attitudinal aspects which serve as the foundation for, or cause of, the motivation to learn a second language. A fuller discussion of the composition of each of the three elements, integrativeness, attitudes toward the learning situation and motivation was presented in Chapter 4; a more precise description of the underlying measurement model will be presented in the next sections. The model presented in Figure 8.2 was adapted from Gardner (1983) and has served as the basis of three studies concerned directly with testing the validity of the major causal links proposed.

Causal modelling investigations

Causal modelling is a procedure championed by Jöreskog and Sörbom (1978) which permits researchers to test the validity of specific structural causal models based on correlational data and, at the same time, to evaluate whether the hypothesized concepts are appropriately identified by their underlying measured variables. It is an extension and refinement of path analysis (Wright 1934), but it

is more general in that it allows for the assessment of measurement error and its correlates as well as the identification of paths and tests not only of their significance but of the adequacy of fit of the entire model. A general computer algorithm has been developed around one particular analytic procedure. The procedure and the program is referred to as LISREL, which is an acronym for the more general label, Linear Structural Relations. The version used in each of the analyses to be discussed below was LISREL IV.

The LISREL causal modelling technique

The mathematics underlying the LISREL procedure is rather extensive and beyond the scope of this introduction. In this section, however, I intend to present a non-technical description of the major aspects of the model. As used here, LISREL begins with a correlation matrix which describes the degree of linear relationship between all possible measured variables under investigation. Using this matrix as the basic data, LISREL permits the researcher to posit the relationship between his/her measured variables and the theoretical constructs which make up the model, and the causal (and at times correlational) links between the theoretical constructs. These two outcomes are referred to as the measurement model and the structural model respectively. The point of departure is a model (including both measurement and structural components) hypothesized by the researcher. This model must be clearly articulated before the analysis begins.

The measurement model

The measurement model describes the relationship between the measured variables (referred to as indicator variables) and the theoretical constructs (referred to as latent variables). The adequacy of any aspect of the measurement model is reflected in the loadings linking the indicator variables to the latent variables. This model permits the assessment of the variance due to measurement error (which is comparable to the reliability (or more precisely, the lack of reliability) in the measurement of that variable as it relates to the construct (latent variable) under consideration). It also allows the researcher to assess the extent to which various measurement errors are correlated.

The structural model

The structural model describes the relationships among the latent variables. In the LISREL model, a distinction is made between exogenous and endogenous latent variables. Exogenous latent variables are those that are hypothesized as the variables which start the model. They are sometimes referred to as independent variables (cf. Pedhazur 1982) since, although they are possible causal variables, they are not caused by other latent variables in the model. (They might be caused by some other variables not included in the model, of course, but if these other variables were included, this would constitute a different model.) Although exogenous variables cannot be caused, they can correlate with other exogenous variables. Endogenous latent variables are comparable to dependent variables in that they are hypothesized to be caused by other

variables, either exogenous or endogenous ones. They also can cause other endogenous variables so that among endogenous variables it is possible in this model to have reciprocal causation. That is, an endogenous variable can both cause and be caused by some other endogenous variable. Although it is not a necessary precondition, it is often advantageous to take measurements over time so that temporal factors can help to determine the direction of causation.

Some limitations of the technique

Like any analytic procedure, LISREL is not the be-all and end-all to research endeavours concerned with inferring causation from correlational data. It has limitations, and many researchers have warned of them (cf. Cliff 1983; Kenney 1979). The procedure is concerned simply with determining whether a particular causal model expressed as a regression model adequately accounts for the correlations among a set of indicator variables. Just because one model provides an adequate fit, this is no guarantee that other models too may not give a good fit, or even a better fit. Just as a factor analytic solution is only one of an infinite number of possible solutions which can also reproduce the correlation matrix, so too is any particular causal model only one of many. Lest these cautions be seen as statements of the futility of the causal modelling techniques, I should hasten to add the alternative view that, of course, if the model does provide a reasonable fit to the correlation matrix, it is at least an indication that the model is a viable one. More importantly, specific models can be rejected as not fitting the correlation matrix.

The adequacy of any particular model can be assessed in many ways, and more recent versions of LISREL provide more of these. The LISREL IV procedure which was used in the studies to be described provides three indications concerning the adequacy of any particular model. One index assesses the adequacy of the model as a whole. This is a χ^2 measure of the goodness of fit of the model. A low χ^2 value that is not significant indicates a good fit, but, even if the value is significant, a χ^2 per degree of freedom (χ^2 / df) value of less than 5.0 is generally considered acceptable (cf. Wheaton *et al.* 1977). The other two indications of the adequacy of the model are concerned with aspects of it. One of them concerns the significance of any particular element. The various parameters that are estimated, the loadings of the indicators on the latent variables, the estimates of measurement error variance, the correlations between errors of measurement, the path coefficients, and the correlations between exogenous latent variables can each be tested for significance. If any one of these values is not significant, it indicates that the best estimate of that value is 0 and that consequently it should be dropped from the model, thus resulting in a change to the model. The last indication of problems with the model is determined by what are termed first order derivatives. These are measures of stress associated with each parameter that is constrained at some value (generally 0, to indicate that it is not an important component of the model). If any of these values is large, it would suggest that the corresponding parameter should be estimated, again resulting in changes to the model. Lomax (1982) has proposed a procedure making use of these three indicators of the adequacy of the model (i.e., the χ^2 , the tests of significance of elements, and the first order derivatives) to modify an initial theoretical model in a systematic manner to yield the best fit without

being influenced by the researcher's decisions concerning the 'best' paths, etc., to add or delete.

Three applications of LISREL to test the socio-educational model

A test of the basic model

Gardner (1983) presented a test of the basic elements of a causal model derived from the socio-educational model presented in Figure 8.2. Data were obtained on 17 indicator variables from a sample of 200 grade 7 (12-year-old) children studying French as a second language. The results of the causal model analysis are presented in Figure 8.3. When the data were gathered, the various attitude, motivation and aptitude measures [the indicator variables contributing to INT (integrativeness), ALS (attitude toward the learning situation), APT (language aptitude) and MOT (motivation)] were administered near the beginning of the academic year, and most of the measures of French achievement (the indicator variables contributing to ACH) were obtained toward the end of the year. French grades were obtained from the teachers after the end of classes.

The model shows three exogenous latent variables, integrativeness, attitudes toward the learning situation and language aptitude, and two endogenous latent variables, motivation and French achievement. Associated with each of these are the appropriate indicator variables (e.g., attitudes toward French Canadians (AFC), motivational intensity (MI)), and the errors of measurement (indicated by the symbols δ (delta) when referring to indicator variables from exogenous latent variables and ϵ (epsilon) when referring to indicator variables for endogenous latent variables). The characteristics of the measurement model are indicated by the loadings of each of the indicator variables on its corresponding latent variable and the correlations of the measurement errors. Thus, for example, the measure of attitudes toward French Canadians (AFC) has a loading of .75 on the exogenous latent variable integrativeness (INT). In addition, the errors of measurement associated with AFC are shown to have a correlation with the errors of measurement for integrative orientation (IO) of .08, and with the errors of measurement for attitudes toward the European French (AEF) of .18. According the model, there is no correlation between the errors of measurement associated with attitudes toward French Canadians (AFC) and interest in foreign languages (IFL), and this is indicated by the lack of any bidirectional error between the two indications of these measurement errors (i.e., the δ 's). All of the values indicated in the figure are significant ($p < .01$) with the exception of the loading of .14 of the variable SCO (sentence completion) on French achievement (ACH). This measure, however, had very low internal consistency reliability.

The measurement model offers strong support for the conceptual underpinnings of the socio-educational model. The four indicator variables assumed to reflect integrativeness (attitudes toward French Canadians (AFC), interest in foreign languages (IFL), an integrative orientation (IO) and attitudes toward the European French (AEF)) all have high (and significant) loadings on this construct. Similarly, the two measures French teacher evaluation (TEA) and

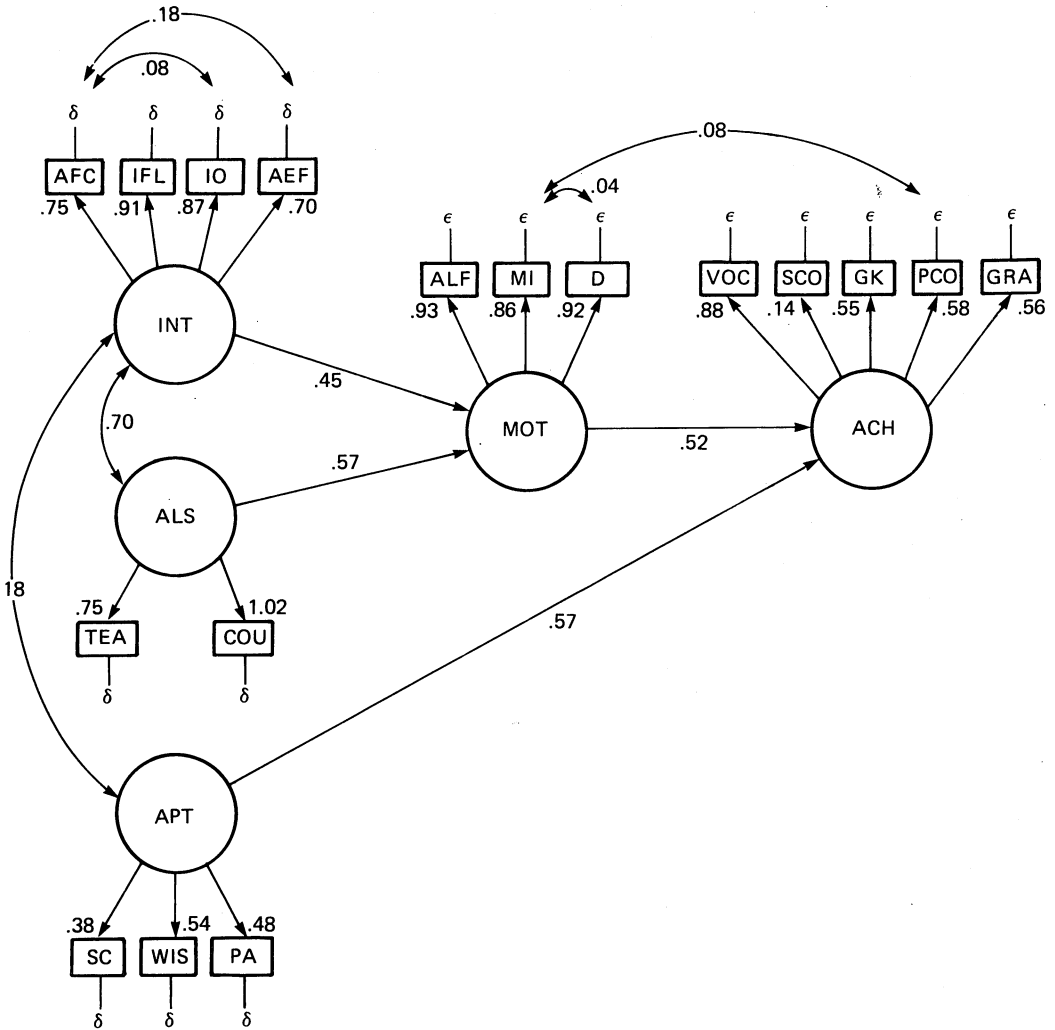


Figure 8.3 Causal model adapted from Gardner 1984. (In the *Journal of Language and Social Psychology*.)

French course evaluation (COU)¹ contribute significantly to attitudes toward the learning situation; the three measures from the Modern Language Aptitude Test (Carroll and Sapon 1959), spelling clues (SC), words in sentences (WIS) and paired associates (PA), contribute significantly to aptitude; and the three indices, attitudes toward learning French (ALF), motivational intensity (MI) and desire to learn French (D), contribute significantly to the construct motivation. Finally, four of the five measures of French proficiency contribute significantly to the achievement dimension. These are vocabulary knowledge (VOC), grammatical knowledge (GK), paragraph comprehension (PCO), and French grades (GRA). Furthermore, there are only a few indications of correlated measurement error. These latter correlations were not posited initially but were uncovered through the application of the procedure suggested by Lomax (1982). It certainly is not unreasonable that there are correlated measurement errors, and this is no way influences the validity of the model.

The structural model similarly offers support for the socio-educational model. It indicates that there are strong causal paths linking both integrativeness and attitudes toward the learning situation to motivation, thus supporting the concept of the integrative motive. It also shows clear causal paths linking both motivation and aptitude to achievement. As presented, therefore, the model suggests that integrativeness and attitudes toward the learning situation cause motivation and that aptitude and motivation cause French achievement. The model also shows that integrativeness and attitudes toward the learning situation are correlated ($\phi = .70$), which is again consistent with the concept of the integrative motive. The correlation of .18 between integrativeness and aptitude was not posited in the original model. In fact, it is generally argued that aptitude is relatively independent of attitudinal/motivational characteristics (see, for example, Chapter 4). Although the correlation is significant in this model, it is, nonetheless, quite low, suggesting that the notion that they are relatively independent but not completely so is a reasonable one.

In Figure 8.3 there are no paths shown linking, for example, aptitude with motivation. These were not hypothesized, nor, more importantly, were they indicated by the first order derivatives generated by the LISREL IV program. The absence of any paths other than those already discussed is a further demonstration of the validity of the model. The analysis indicated not only that it was unnecessary to assume a causal path between aptitude and motivation, but it was also unnecessary to posit direct paths between integrativeness and achievement, or attitudes toward the learning situation and achievement. These findings reinforce generalizations made in the socio-educational model that attitude variables are important in that they serve to maintain levels of motivation and that they are not implicated directly in achievement.

The significant paths, already discussed, and the indication by the first order derivatives that no other paths are necessary offers strong support for the

¹ The loading relating the indicator variable French course evaluation to the latent variable attitudes toward the learning situation exceeds 1.0. This impossible result sometimes occurs in the application of LISREL IV. Churchill and Surprenant (1982) indicate that this sometimes occurs when two measures of the same construct are highly correlated. This appears to be the cause in the present instance. The correlation between French course evaluation and French teacher evaluation was .77; if this value is arbitrarily reduced to .70, the aberrant value is decreased to an acceptable level without influencing appreciably any other element of the model.

validity of the socio-educational model. Further support for the model is presented by the χ^2 analysis. This measure of the goodness of fit was 131.12 which at 109 degrees of freedom was not significant, indicating that the model as presented does provide a reasonable fit to the correlation matrix. Furthermore, the χ^2/df value is 1.2. Since Wheaton *et al.* (1977) recommend that a good fit is suggested whenever this value is less than 5.0, this value clearly suggests that this model accounts for the correlations among the indicator variables very well.

A test of an extended model

Gardner *et al.* (1983) performed a causal modelling analysis on 18 indicator variables obtained on a sample of 140 university students studying first year French. This model was similar to the one discussed above except that, rather than having measures of language aptitude, an index of French proficiency (ST) was obtained before classes began. In addition, three additional latent variables were included. Two of these were intended to assess aspects of the cultural milieu, as perceived by the student. The latent variables were defined as importance of course objectives (IMP) and opportunities to use French (OPP). Importance of course objectives were assessed by asking the students to rate the importance of each of ten objectives of the course as they perceived them (SOB) and as they felt the university administrators perceived them (AOB). Opportunities to use French were determined by asking students to indicate whether or not they had used any French in eight different contexts (OUF) in the past year and also to rate each of these contexts as to how frequently they intend to use French in the future (IUF). The third new latent variable investigated in this model was anxiety (ANX) which was assessed using two situationally-based anxiety measures, French course anxiety (FCA) and French use anxiety (FUA).

The measurement model was changed slightly over the previous one for some of the latent variables. Integrativeness (INT) was assessed by only three measures; attitudes toward the European French was omitted in this investigation. (INO refers to the integrative orientation which was labelled IO in the previous study.) French achievement (ACH) was assessed by three measures, self-ratings of proficiency (SR) in terms of speaking, reading, listening comprehension and writing, professor ratings of proficiency (PR) on the same scales, and French grades (GR).

The model is presented in Figure 8.4, and as can be seen the measurement model clearly justifies the hypothesized association between the indicator variables and the corresponding latent variables. All the loadings are relatively high and significant.² Again there are indications of low but significant correlations between the measurement errors for some variables, but in general the measurement model provides strong support for the operational definitions of the concepts such as integrativeness and motivation.

The structural model suggests that the two latent variables assessing important beliefs in the cultural community (importance of course objectives and opportunities to use French) are highly correlated ($\phi = .44$) and that whereas both variables significantly cause integrativeness, only the importance

² It will be noted that the loading of French course evaluation on the latent variable attitudes toward the learning situation is again greater than 1.0 (see footnote 1).

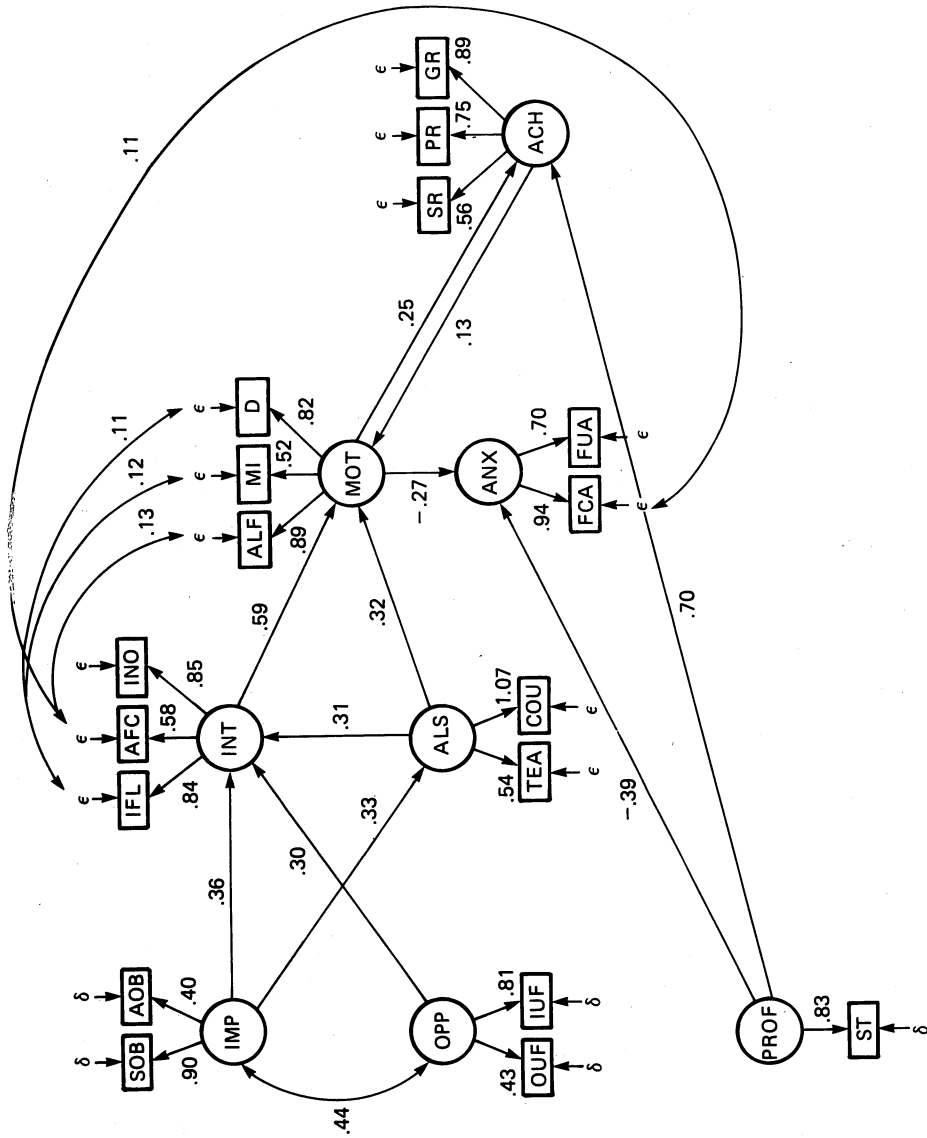


Figure 8.4 Causal model adapted from Gardner et al. 1983. (In the *Journal of Language and Social Psychology*.)

of course objectives causes attitudes toward the learning situation. These three causal connections provide empirical justification that cultural beliefs in the community can influence the attitudinal aspects of the integrative motive. It seems particularly instructive, furthermore, that whereas individuals' perceptions concerning the importance of course objectives 'cause' both their integrative attitudes and attitudes toward the learning situation, their expressed opportunities to use French only causes their integrative attitudes. To the extent that individual subjects' expressions of beliefs represent those of their immediate environment, such results would suggest that cultural beliefs can have very specific effects. In the original formulation of this model for LISREL analysis, it was presumed that both beliefs would cause both attitudes, but application of the Lomax (1982) guidelines resulted in the path from opportunities to use French to attitudes toward the learning situation being deleted.

As in the previous model, integrativeness and attitudes toward the learning situation both cause motivation, and both are linked with each other. (Since they are endogenous variables in this model this link is shown as a causal one from attitudes toward the learning situation to integrativeness, as opposed to a correlation between the two concepts.) As hypothesized, both motivation and initial French proficiency cause French achievement, and in this study French achievement is shown to have reciprocal causal effects on motivation. This effect of achievement on motivational attributes (recall the hypothesized effects of language experiences on non-linguistic outcomes indicated in Figure 8.2) was assumed to be evidenced in this case because in this study all three indicators of French achievement could reflect evaluations spanning the entire year. It is not a simple case of high levels of achievement causing motivation, otherwise there would be a causal connection between initial French proficiency and motivation, and there is not. It is more likely that indications of relative success or failure during the year influence individuals' motivational states at the time and this is what is reflected in the reciprocal causation.

In this study, it was hypothesized that initial proficiency would be responsible for low levels of anxiety (as indexed by a causal path with a negative coefficient) and that anxiety would cause low levels of final achievement (again as indicated by a negative path coefficient). The former prediction was supported by the model, but the latter one was not. A consideration of the tests of significance for specific paths and the first order derivatives suggested instead that anxiety was best considered as being caused (negatively) by both initial proficiency and motivation, but that it was not a determinant of final achievement.

As before, all of the paths indicated in the model are significant at the .05 level or better, and no other paths were suggested by the procedures outlined by Lomax (1982). The χ^2 goodness of fit for this model was 191.92 at 120 df. This value is significant, suggesting that the model does not completely account for the correlation matrix, but a consideration of the first order derivatives did not indicate any other paths which would improve the fit. Moreover, the χ^2/df ratio of 1.59 is considerably less than the maximum value of 5.0 suggested by Wheaton *et al.* (1977), suggesting that the fit is acceptable. Given the temporal restrictions imposed on this model, namely, that initial proficiency was assessed before the course began, that importance of course objectives, and opportunities to use French were assessed at the beginning of the year, that the indices of integrativeness, attitudes toward the learning situation, motivation and anxiety

were taken two months later, and that the measures of French achievement were assessed one month later at the end of the semester, the general structure of the model seems appropriate.

In this test of the socio-educational model of second language acquisition, there is again a clear indication that the assumed causal processes are operating. This model, furthermore, introduced an operationalization of the factor 'cultural beliefs', which was not present in the previous test, and even that aspect of the model was supported. Not only that, but the results suggested that cultural beliefs can have selective effects, operating on some attitudinal dimensions but not others. Further research is obviously needed, but this type of pattern indicates that more attention should be directed to the actual make-up of individual's socio-cultural milieu as reflected in their beliefs, because it is quite likely that attitudes relevant to the second language context grow out of this context and are supported by these beliefs. As we shall see next, however, attitudinal and motivational characteristics may also have other causes and correlates.

A test of the role of personality in this model

Lalonde (1982) was concerned with identifying personality correlates of second language achievement. His primary thesis was that earlier studies had not considered a sufficiently wide array of personality variables, had not allowed for their possible interaction with attitudinal/motivational characteristics or language aptitude and had not capitalized on the power of multivariate statistics. As a consequence, he included all of these components in one study. A report, focusing on the causal modelling aspects of this investigation, is presented by Lalonde and Gardner (1984). Subjects for this study were 88 university students enrolled in first year French. Measures from 30 indicator variables were included in the model.

Figure 8.5 presents this extended model. Based on factor analytic results reported in Lalonde (1982), two personality constructs were introduced into the model as exogenous latent variables. Both of these personality constructs are consistent with generalizations made by Krashen (1981; 1982), and the terminology used in the model is based in part on Krashen (1982). One of these constructs is labelled analytic orientation (AOR) and is assumed to be related positively to three personality variables, breadth of interest (BOI), complexity (CPX), and innovation (INV), and negatively to another, conformity (CFT). These variables appear to reflect major aspects of the personality components of the analytic orientation as described by Krashen (1981; 1982). The second personality construct was seriousness (SER) which was hypothesized to be indexed positively by achievement (ACH), organization (ORG), responsibility (RES), and negatively by impulsivity (IMP). These personality characteristics appear to characterize the serious student of a second language. The actual measures were obtained from the Jackson Personality Inventory (Jackson 1978) and the Personality Research Form (Jackson 1974). One additional endogenous latent variable was also introduced. This was confidence (CFD) which was assessed by three scales adapted from the can-do (Clark 1981a; 1981b). These are scales which ask individuals to rate how well they could make use of their

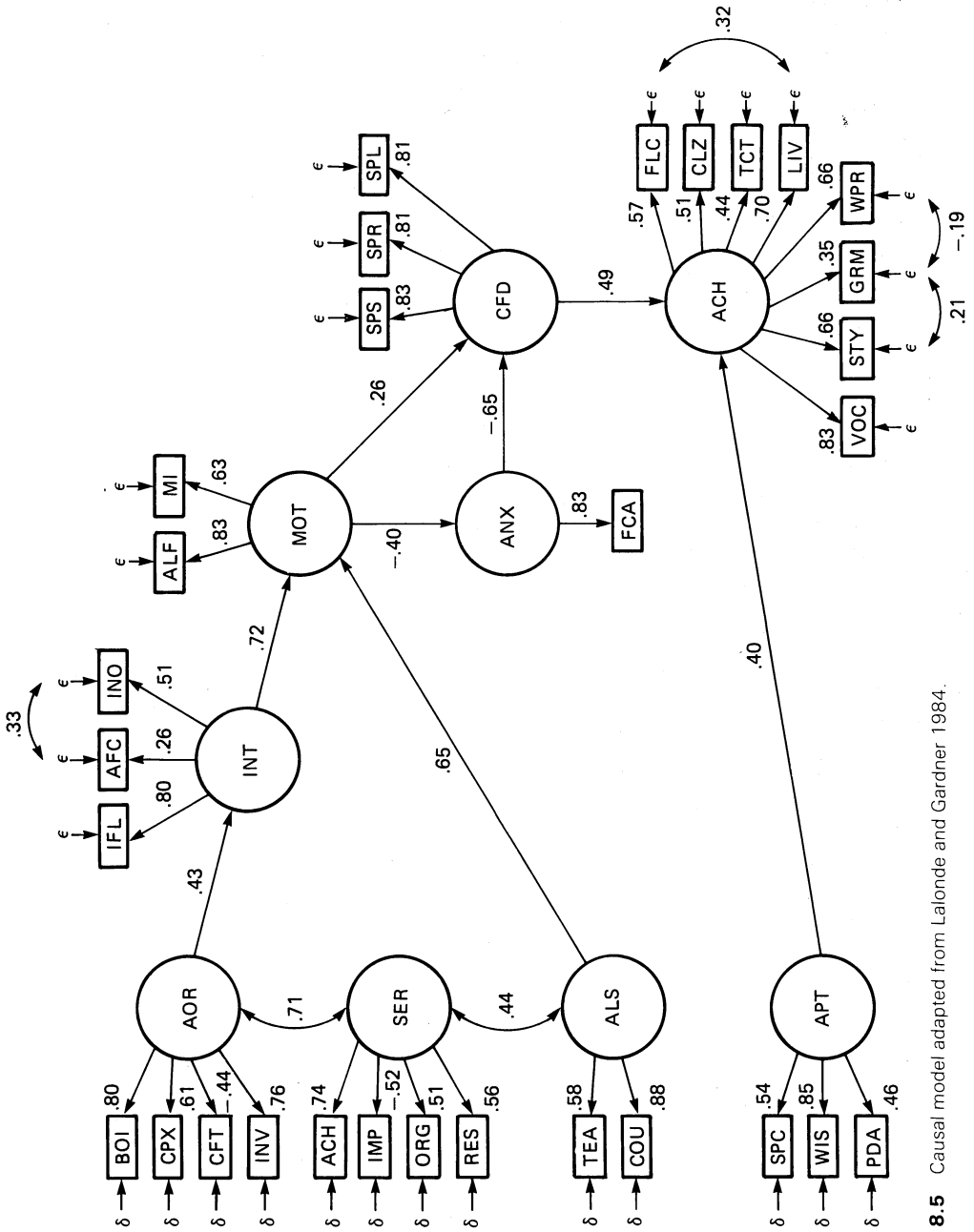


Figure 8.5 Causal model adapted from Lalonde and Gardner 1984.

French proficiency in very specific situations; the scales refer to speaking (SPS), reading (SPR) and listening skills (SPL).

As before, the measurement model indicates that each of the latent variables are well described by the measures and that there are some correlated measurement errors. In this model, only two indicators of motivation and one measure of anxiety were included. There were eight assessments of French achievement (ACH), indices of vocabulary (VOC), style (STY), grammatical sensitivity and spelling (GRM), and word production (WPR) based on ratings of themes written by the students, a measure of communicative comprehension (LIV), a thing category test requiring the generation of many French words (TCT), a French Cloze test (CLZ) and a French listening comprehension test (FLC).

The model submitted to LISREL hypothesized a direct causal link from seriousness to motivation, but application of the Lomax (1982) procedure resulted in its elimination and the introduction of correlations between seriousness and both the analytic orientation and attitudes toward the learning situation. All other paths shown in Figure 8.5 were as hypothesized. This model suggests, therefore, that an analytic orientation causes integrativeness, and both integrativeness and attitudes toward the learning situation cause motivation (the tripartite elements of the integrative motive – as depicted in Figure 8.2). Motivation is seen to cause both anxiety (low levels as indicated by the negative path coefficient) and self-confidence with French, and both self-confidence and aptitude are seen to cause French achievement. In this model, then, motivation is shown not as a direct cause of achievement but rather as an indirect cause through self-confidence.

The difference between this model and the previous two showing a direct causal link between motivation and French achievement could be due to many factors. One could be that this is the first instance where self-ratings of proficiency were not included as part of the latent variable of achievement. The division between self-confidence and achievement was made in this study because there were so many indicators of French proficiency and because it seemed meaningful to consider a separate dimension of self-confidence since it has been postulated as important by both Clément (1980) and Krashen (1982). Over one third of the variables in the correlation matrix reflect proficiency in French, and this dominance could influence both the measurement and structural models. A second reason could be the nature of the achievement variables. Almost all of the indicators of achievement (ACH) (with the possible exception of French listening comprehension (FLC) and the live French test (LIV)) would appear to emphasize monitor-type skills. As has been suggested by Krashen (1981) and earlier (see Chapter 7), such skills may depend more upon differences in aptitude than motivation, and thus the effects of motivation might be reduced. The self-rating measures focus more on monitor-free types of skills, and in this study they relate directly to motivation and not at all to aptitude. Clearly more research is required, but, interpreted in this way, this model provides more support for Krashen's distinction between monitored and monitor-free aspects of achievement and is consistent with the socio-educational model. Motivation is a cause of achievement, but it is mediated by individuals' confidence with the second language.

The χ^2 test of goodness of fit for this model was 554.99 at 392 df, which is significant, suggesting that the model does not completely account for the

data. The χ^2/df value is 1.42, however, and this is still sufficiently low to suggest a relatively good fit (cf. Wheaton *et al.* 1977). This analysis thus provides another indication of the validity of the socio-educational model and indicates that the basic configuration is sound.

This analysis also demonstrates, however, that the basic model can be extended to include other variables and that this extension might help to explain ambiguities and inconsistencies in the existing literature. In this case it was assumed that personality variables would be implicated in second language acquisition, not as direct causes of achievement, but as influences on attitudinal/motivational characteristics. As indicated in Chapter 2, there is not strong evidence of consistent relationships between personality variables and achievement in a second language, but at least two researchers (Krashen 1981; Rivers 1964) have posited that personality variables could influence attitudinal/motivational characteristics. The results obtained here are consistent with this interpretation. Personality variables are not direct causes of achievement but they are important to the extent that they influence relevant attitudinal and motivational characteristics. This could explain why some personality variables in some studies shown relationships, and would offer a solid theoretical rationale as to why any specific personality variables might relate to second language achievement. Based on this analysis, the major operating variable is motivation, specifically integrative motivation.

Summary and conclusions

In this chapter we have considered the socio-educational model of second language acquisition and considered empirical tests of the model as a conceptual unit. Previous chapters were concerned with empirical support for specific aspects of the model such as the degree of correlation between attitudinal/motivational characteristics and achievement, or the effects of different language learning experiences on attitudes and motivation, but here attention was directed at the entire process. The model was presented as a dynamic causal interplay of individual difference variables interacting with environmental and acquisition contexts resulting in both linguistic and non-linguistic outcomes.

A major point to be stressed is that this model is conceptually similar to other theoretical models which have been proposed (and which were discussed in Chapter 7). The model is unique, however, in that it has developed in conjunction with a research tradition that has continually focused attention on the reliability and validity of measures which define variables that are significant elements of the model. This emphasis on measurement and empirical test has been stressed throughout this book, but its value is highlighted in this chapter where it is demonstrated that, because of this attention to measurement, direct tests can be made of the hypothesized processes in the model.

The use of causal modelling in this context is also unique to the socio-educational model, and the overall validity of the model is clearly demonstrated. The basic model was shown to provide a parsimonious account of the relationships existing among the measured variables, and it was demonstrated further that this model can be easily extended to determine how other variables, presumed to be involved in second language learning, relate to it. These extensions involved one which sought to assess the role of cultural beliefs in this process and another

which considered the potential contribution of personality variables.

It must be emphasized that there is no intention here to convince others that the model is the true or final one. I personally don't believe it is. I do feel, however, that it contains many elements which must be considered in future developments. A true test of any theoretical formulation is not only its ability to explain and account for phenomena which have been demonstrated, but also its ability to provide suggestions for further investigations, to raise new questions, to promote further developments and open new horizons. This model has those capabilities and, hopefully as a result of the account given here, they will be realized.

9

Epilogue

For many children, learning more than one language is simply a matter of routine (cf. Tucker 1981). Because of the accident of their birth, they are placed in a situation where they must learn to communicate in more than one language. The material discussed in this book may or may not be relevant to them. In all probability, the conceptual issues are, but the paradigm around which the research is based is not directed toward these children. For other children, a 'foreign (or second) language' is a school subject introduced somewhere between the first and last year of formal education. Like arithmetic, history, or geography, it represents material that must be learned, understood, or memorized in order to pass an examination, please a teacher, make parents happy, satisfy some inner curiosity, or whatever. This is not intended to be a cynical view of the educational system, but rather to emphasize simply that by and large children take things as they come along. They do not necessarily perceive things in the way school authorities feel they do. This was brought home to me in conjunction with one of our studies of bicultural excursions when one student reported after an excursion to Quebec City that it was a real revelation to him that people there actually lived in French. The school programme clearly had stressed that French was the language of a significant number of people, but it was the actual experience in Quebec that led this student, at least, to finally grasp that to some people it was a living language that they actually thought and dreamed in, not one that they translated into in order to express something.

The material in this book is relevant to those children who study a language as a formal school subject. Most of the research discussed is concerned with this context, and the theoretical model presented in Chapter 8 is addressed specifically to this situation. Even within this rather limited context, however, the social implications of learning another language seem to be very evident. Although the majority of language classes are artificial in that communications are made up in order to teach some vocabulary, structure, etc., the research evidence indicates that the development of language proficiency in these contexts is related to social attitudes and motivation.

This should come as no surprise. Language is a truly human characteristic. Our self-identity is intermingled with language. When people say, 'That doesn't sound like me', they are indicating simply that their self-perceptions include a heavy language component. (Some bilinguals have even commented to me that they feel more comfortable in one language than another.) As a consequence, the language class is an interesting if not traumatic experience. This is

recognized by Curran (1961) whose technique of community learning rests largely on the provision of a warm and accepting environment. It may not be sufficient simply to motivate the student and explain to him or her the advantages of learning the second language; it may require instead some form of emotional support to protect the student's identity or feeling of self.

To some extent, the artificiality of the typical language class may offer, in fact, one form of protection to many students. Because the communications in the second language are seldom true personal communications, it is just possible that this permits students a form of armour for themselves. They are simulations, and by playing a part the individual student can separate language and self-identity. This may not be the best way to develop proficiency in the language, but it does allow students to try out the language to see whether they like how it sounds on them. It is perhaps only when students begin to develop proficiency in the second language that emotional pressures present themselves. This observation was first made by Lambert (1963; 1967) who suggested that as people become sufficiently proficient in the second language to associate themselves with both linguistic-cultural groups, they will experience anomie, feelings of social uncertainty or dissatisfaction with their roles in society.

The central theme of the socio-educational focus

A central concept of the socio-educational model is motivation, and this motivation has a social dimension reflecting the individual's reactions to outgroups in general and the other language community in particular. Motivation may or may not be influenced by pedagogical techniques, class orientated pressures, and the like – this aspect has received very little empirical investigation – it is, however, influenced by the student's reactions to the language learning context. That is, motivation to learn a second language is influenced by group related and context related attitudes (integrativeness and attitudes toward the learning situation, respectively).

This motivation, however, always has an integrativeness component. Even when we speak of an instrumental motivation, this has associated with it some level of willingness to interact with other communities or the specific community in question. Learning another language in order to 'get a job' or 'improve one's education', etc., belies an interest in interacting at some level at least with the other ethnic community. To the extent that it is a powerful motivator, it will influence achievement, but the major aspect in it is not the instrumentality *per se* but the motivation. Many other aspects may underlie such motivation, and a very promising research programme might focus on these other aspects. As addressed in various parts of this book, these other aspects might involve personality determinants, pedagogical techniques, teacher variables, etc. The point is that, where these other variables are shown to influence achievement in the language, it will be found that they operate through the motivational dimension. They may correlate with achievement, but they will also correlate with motivation, and if the motivational component is partialled out, their influence will be considerably reduced.

A recent investigation by Genesee *et al.* (1983) makes a similar point and suggests another potentially important factor. This is the support provided by the other community for learning the language. In their study, Genesee *et al.*

assessed students' own levels of motivation and the perceived motivational support from the other-language community. They found that for some criteria own motivation was the better predictor, while for others it was the perceived support that was best. They conclude that 'Our findings also indicate that the relative importance of each motivational component will depend on the outcomes or behaviours being predicted' (p. 222). This agrees basically with the point made here that motivation is a major determinant of second language acquisition. The source of the motivating impetus is relatively unimportant provided that motivation is aroused.

The concept of motivation emphasized here is a multi-faceted construct in that it involves effort (motivational intensity), cognitions (desire) and affect (attitudes). Some environmental manipulations might influence some aspects of motivation, but it is the total configuration that will eventuate in second language achievement. This is because motivation implies a number of inter-related activities. Individuals who are truly motivated not only strive to learn the material but also seek out situations where they can obtain further practice. Furthermore, such individuals will have definite cognitions about the value of achieving competence (for whatever reasons) and will find the experience enjoyable. This motivation is a total state of the individual, not a simple interest in the language nor a drive to learn some specific material because of some environmental pressure such as an examination or a desire to please a teacher or parent. These can be motivational stimuli, but they are viewed as relevant to the motivational concept proposed here only to the extent that all three components of motivation are influenced.

Another important concept in the socio-educational model is language aptitude. It seems clear from all of the research that there is an aptitude for languages and that it plays an important role in facilitating second language acquisition. As discussed in this book, it is a complex of verbal abilities and reasoning factors, but to a considerable extent this is a function of the language aptitude measures presently available. When measures of language aptitude (special prognosis tests) were initially proposed (see, for example, the monograph edited by Henmon (1929)), the subtests reflected the technology and concepts of the times (e.g., a fair emphasis on Esperanto and on rote learning). The more recent developments (Carroll and Sapon 1959; 1967; Pimsleur 1966) similarly reflect concepts and approaches that were important when they were initiated. There have been many changes since then, however, not only in language teaching pedagogy, but also in the area of verbal learning and psychological measurement, and it is quite probable that measures of language aptitude could profit from revision. Future developments both in the theory of language aptitude and the correlations of the measures with indices of achievement would do well to consider assessing language learning strategies (see, for example, Bialystok 1978; Wesche 1979) and indices of imagery ability (cf. Paivio and Harshman 1983).

Important concepts and developments

There are some concepts and developments that, in my opinion, appear to stand out in this area of research. One that I have already emphasized in this chapter is the concept of the integrative motive. Although the basic rationale underlying

the integrative motive is not new, the concept itself is an important development because it provides an integrated conceptual system linking various classes of attitudes and motivation. Within the context of the socio-educational model, it offers a process explanation of how attitudinal/motivational variables interact with language acquisition contexts to promote achievement in the second language.

Another important concept in this area is that of additive and subtractive bilingualism. As discussed earlier, Lambert (1974) proposed that subtractive bilingualism occurs when the acquisition of a second language involves some threat to one's cultural heritage, and often faces members of a minority group learning the language of the majority. Additive bilingualism, on the other hand, involves no such threat and typically characterizes the situation facing members of a majority group learning another language. In another context, however, I (Gardner 1982) questioned whether it was necessary to link subtractive bilingualism with minority ethnic group members and additive bilingualism with members of the majority group. From the point of view of the individual, subtractive bilingualism can be seen to involve the concern that learning another language might detract from one's own ethnic identity. If this is the case, it could be argued that additive and subtractive bilingualism as sociological constructs refer to what can happen to the individual in given social contexts. Subtractive bilingualism to the individual involves a perceived threat of ethnic identity, and such perceptions could interfere with language learning. This point was first made by Taylor *et al.* (1977) who found that the perceived threat to ethnic identity of language acquisition is negatively related to self-perceptions of achievement in a second language. Clément *et al.* (1980) found, furthermore, that a measure of threat to ethnic identity contributed negatively to an integrative motive factor. These two studies were conducted with francophones, but it seems equally likely that such relationships could be evident in other cultural groups.

A third concept that has been discussed in only a limited fashion earlier is that of ethnolinguistic vitality, but this too seems to be a concept with far-reaching implications. Ethnolinguistic vitality was introduced by Giles *et al.* (1977) and refers to 'that which makes a group likely to behave as a distinctive and active collective entity in intergroup situations' (p. 308). This vitality is seen to have three components, status, demography, and institutional support, and is largely a sociological construct. An important extension of this concept, however, is in the assessment of subjective ethnolinguistic vitality (Bourhis *et al.* 1981). This assessment focuses on the same three components as those listed above but is concerned with the individual's perceptions of vitality and thus has a greater personal relevance than a purely objective count. As Bourhis *et al.* (1981) suggest, '... knowledge about group members' subjective perceptions of their own ethnolinguistic vitality may help account for group members' intergroup attitudes, skills and motivation for second language learning, attitudes towards language usage and use of code switching strategies' (p. 147). If one also included indices of the ethnolinguistic vitality of the second language, this concept could provide a potentially important assessment of the socio-cultural milieu as described in the socio-educational model of second language acquisition described in Chapter 8.

Another development that appears potentially very important is a technique

for assessing self-perceptions of competence in a second language. Self-ratings of language proficiency were used in many of the studies discussed in this book, but they were very general assessments. This new technique is different in that it presents individuals with a set of very specific language acts such as 'counting to ten in French' and asking them to rate how well they could perform each specific task. The can-do scales (Clark 1981a; 1981b) are much more objective than the general self-rating scales and evidence good levels of validity when related to objective measures (Clark 1981a). It promises to be an extremely useful technique in the future for both teachers and researchers alike to probe not only self-perceptions of what individuals believe they can do, but also to some extent to provide a fairly quick measure of actual competence.

Future directions

The purpose of this book has been to focus attention primarily on the empirical research linking attitudes, motivation, and language aptitude to second language acquisition. To date, there is good evidence of an association and some understanding of the reasons for this association. The approach proposed here seems fruitful, and there are many encouraging avenues for continued investigation. Underlying these, however, is a need to emphasize the measurement properties of the variables under investigation.

Attention to empiricism and careful measurement is necessary in this area because the problems are extremely complex, and any relationships that are obtained must be delicate. Correlations between individual difference variables such as attitudes, motivation, or second language aptitude and proficiency in the second language should be in the range of .30 to .40. Although such a correlation may seem low, a careful consideration of the issues involved will indicate that in fact this is a very substantial figure.

Consider, for example, a very simple criterion like vocabulary knowledge as assessed with an objective multiple choice test. An individual's score on such a test can be influenced by many factors involving the format of the test and the nature of the items included. Moreover, the acquisition of any one vocabulary item can be influenced by a number of factors such as how clearly the teacher introduced the item, the number of times the item was presented, or whether or not the student was attentive at the time. That is, there are many factors that can influence the assessment of the criterion. When one attempts to determine the roles played by attitudes, motivation and language aptitude in language acquisition by computing correlations between these measures and indices of proficiency, one has to contend further with the validity and reliability of all the measures. When all of these issues are considered, a correlation of .30 to .40 is in fact quite impressive. And this is concerned with a relatively simply criterion like vocabulary knowledge. If the criterion is something more complex like speaking fluency or class grades or listening comprehension, there are many other things that can mediate the relationship between any one individual difference measure and proficiency.

Although it has been demonstrated that attitudes and motivation are relatively independent of language aptitude, it is not necessarily true that either would be independent of any of the other variables involved in language acquisition. If this were the case, the interactions among these factors would also have

to be considered when determining correlations between individual difference variables and achievement.

Considerable progress has been made in the assessment of individual difference variables that are related to proficiency in a second language but much more progress can be made if we continue to search for answers to the question as to what factors influence language acquisition. I believe that pedagogical techniques, teaching materials, and the teachers themselves play important roles in this process, and, although these roles are not discussed to any great extent in this book, I have no intention of denigrating their importance. It seems obvious that these factors are important and that they interact with the individual difference variables to promote proficiency. Further research should be encouraged that looks at this interaction.

Some research discussed in this book (e.g., Gliksman 1976; Naiman *et al.* 1978) investigated the interactions of teachers and pupils but deliberately excluded the dynamics of individual classrooms. This was necessary in those studies because of the nature of their design, but it would be possible to initiate studies that consider the interaction between classroom environments and individual differences and the effects of this interaction on achievement in the language. One example of such a study might involve a number of different teachers using prescribed approaches to teach a given lesson plan. By classifying students as to attitude/motivation level and level of language aptitude, the effects of these variables interacting with teacher characteristics and/or approach used could be studied on both immediate acquisition and retention. To date, relatively little use has been made of laboratory-based procedures in this area, but we seem to be at the stage now where such studies are possible. This research would have to involve a large number of language teachers actively in the research process because to a considerable extent the research would be focusing on them as individuals. In many studies language teachers are often generous benefactors who give researchers their time and expertise and their students' time and patience. They would, however, have to work even more closely with the researchers in studies focusing on the interaction of teacher-related variables and student characteristics of achievement in order to offer sufficient control of extraneous variables.

A question hinted at on occasion throughout this book but never addressed directly is whether the role of individual difference variables like language aptitude, attitudes and motivation may differ across cultural communities. We have found some evidence (see Chapter 4) that the relationships of the individual difference variables to achievement in a second language varies somewhat across cultural communities. The differences noted were not that great, but it is conceivable that some cultures might exist where the relationships are very different. Conducting definitive research is not easy since as we noted many times the nature and number of variables also change in different cultural settings, and there could be large differences in measurement characteristics of the tests themselves. It should be possible, nonetheless, to mount a research programme investigating cultural effects but keeping the nature of the variables and their measurement characteristics relatively constant. Gardner, Smythe and Lalonde (1984) have conducted one variant on this type of study focusing on regional differences of anglophones learning French. The major finding in this case was that the factor structure underlying measures of language aptitude,

attitudes, motivation and French achievement were influenced somewhat depending upon whether the community was characterized as bilingual or monolingual. These results would suggest, therefore, that the role of the cultural community merits further investigation. We have only scratched the surface here.

More attention should be directed to multivariate studies involving indices of attitudes, motivation, language aptitude and second language achievement in many different linguistic and cultural communities. By paying particular attention to ethnolinguistic vitality of the first and second language in the community, such studies will give us a better understanding of the role of the cultural milieu in the language learning process. This research would profit too from an attempt to assess the community's view concerning the value of second language acquisition and the variables expected to be important because it seems possible that these community expectations may have an effect. If, for example, the expectation in the community is that all students will learn the second language to the extent of their ability, the role of motivation could be considerably reduced.

Any such research must, however, continue to be concerned with the reliability and validity of the measures. At a minimum, I would recommend that researchers stop using single item measures of a construct and/or defining measures based on *post hoc* factor analyses of item responses. Single item measures tend to be unreliable, and measures derived from *post hoc* factor analyses capitalize on chance occurrences. A more constructive approach would employ scales developed for the purpose of assessing the constructs of interest. More attention should be devoted to multi-trait multi-method assessments of the constructs, but where this isn't possible researchers should at least present evidence as to the internal consistency reliability of the measures. If nothing else, high internal consistency indicates that the items comprising a scale are homogeneous, and, to the extent that the items were developed or selected so as to be representative of the construct, this information provides indirect support for validity.

A major conceptual issue underlying research on individual difference correlates of second language proficiency is that of cause and effect. One particular causal model guided most of the discussion throughout this book, and this was that individual differences in both language aptitude and attitudes and motivation influenced a student's relative degree of success in learning a second language. There was even some evidence presented in Chapter 5 to suggest that the effects of attitudes and motivation on achievement were clearly much greater and more consistent than any potential effects of achievement on attitudes and motivation. Nonetheless, it is the case that the nature of the cause-effect relations are not unequivocal.

Causal modelling as exemplified by the LISREL procedure (Jöreskog and Sörbom 1978) is an extremely powerful analytic procedure that permits the researcher to determine the adequacy of hypothesized theoretical constructs (latent variables), to estimate the magnitude of measurement error associated with each indicator variable, to determine the extent to which such errors are correlated with other errors, and to examine a wide range of causal pathways. The technique does have its limitations, of course. It cannot prove causation. It can, however, indicate the extent to which it is reasonable to conclude that any

particular causal model could account for an obtained correlation matrix. Furthermore, if alternative models are hypothesized, it is possible to determine which model better reproduces the correlation matrix. In this way, direct hypothesis testing can be applied to the adequacy of specific models. In addition to forcing researchers to be more explicit about hypothesized measurement errors, assumed causal pathways and the like, this procedure offers a way previously not available to assess different models directly. Causal modelling procedures, therefore, is a strong analytic ally for researchers in this area, and it is recommended that future investigations capitalize on the power of this technique.

It remains, of course, that analytic procedures cannot uncover causal links. Studies that make use of laboratory techniques in that they employ random sampling and specific treatment conditions are necessary to truly unravel cause-effect associations, and such studies are not practicable in this area. More use might be made, however, of laboratory-based approaches in order to attempt clarification. Such an approach was recommended earlier where it was suggested that research be conducted looking at the interaction of individual difference variables and teacher-related characteristics such as teaching strategies. Other studies might be conducted using analogue settings to more focus our observations. For example, we recently completed a study in which we directed attention to the role of attitudes and motivation on the one hand, and language aptitude on the other, on the rate of learning second language vocabulary using a paired associate learning paradigm. The results demonstrated quite clearly that both language aptitude and attitudinal/motivational attributes have independent effects on the actual rate of learning. High and low aptitude subjects as well as high and low attitude/motivation subjects didn't differ on how many words they knew on the first trial. The rate of learning was, however, much steeper over trials for both the high aptitude and high attitude/motivation subjects in comparison with their contrasting subjects. This is an analogue study concerned with a relatively minor aspect of second language acquisition, but it indicates that such laboratory-based research is possible.

Another research area that deserves more active consideration is the role of the parent in second language acquisition. As demonstrated in Chapter 6, the parent has been shown to play an influential role in attitude formation. It seems equally likely that parents differ in the amount of verbal training they give their young children and that such parental variables could have an effect on second language acquisition. To date, this is a relatively unexplored area, but one that has many interesting possibilities. In Chapter 6 it was argued that it is meaningful to distinguish between two possible parental roles, the active one and the passive one, and research would do well to explore these possibilities further. It might be instructive, however, to also consider the potential role of early child rearing variables in the home.

One possible study of this type could make use of causal modelling procedures. It would seem reasonable to hypothesize a causal link between child rearing variables that focus either on attitude development (e.g., authoritarian child rearing behaviours) or the development of verbal abilities (e.g., reading to the young child) and attitude and aptitude characteristics of the student. At the same time, it would seem meaningful to posit some causal association between

these child rearing practices on the part of the parent and other parental variables that would be indicative of current active or passive roles in the language learning context. These in turn might be expected to interact with the student's attitudinal/motivational attributes and/or language aptitude to influence proficiency in the second language. This is not meant to be a proposed study, though it would seem to have possibilities, but rather is intended to suggest ways in which current methodological innovations like causal modelling would be particularly useful in this context. Obviously a host of other studies could be proposed. The important point is, however, that this represents a very fruitful avenue of research that has until now been generally unexplored. The availability of useful measures of language aptitude and attitudinal/motivational attributes should facilitate further research along these lines.

A fifth and final avenue involves a slight shift of emphasis. This book has focused attention on the role of individual differences, primarily attitudes and motivation, on the acquisition of a second language, but another area that could be explored is their effects on the retention of language skills. The bulk of the research has focused on the student learning the second language in the formal school context, and a problem with this context is that often the skills are not retained after training ends. A frequently voiced complaint of many students is that, although they had once been fairly proficient in the second language, they found that their skill dissipated shortly after the course ended. Obviously such loss results largely because of disuse, but it seems very meaningful to ask whether some other factors could be identified that either facilitate or hinder retention.

This is a relatively unexplored area. Lambert and Freed (1982) edited a book summarizing the results of a conference held in 1980 that dealt with the loss of language skills. Researchers with many different perspectives discussed the implications of their particular orientation or field of research on language loss. Focusing on social factors, I (Gardner 1982) argued that, to the extent that attitudes and motivation are implicated in the acquisition of second language skills, it seemed likely that they would play a similar role in retention. Specifically I argued that attitudinal/motivational attributes would determine the extent to which individuals would continue to practise or make use of the language once training is terminated, and this, along with the fact that initial level of proficiency would also correlate with attitudinal/motivational variables, would mediate the amount of loss. A preliminary study found no relation between attitudinal/motivational attributes and reported use once training terminated, though differences in attitudes and motivation did influence the self-perceived relative loss of language proficiency six months after training. Those students with very favourable attitudes and motivation demonstrated relatively little loss in both speaking and understanding French while those with less favourable attitudes and motivation showed much more substantial losses. One difficulty with this study was that all assessments were done at the post-test (the can-do self-rating measures of second language proficiency are very useful in this type of situation), hence, alternative interpretations are possible. Nonetheless, the patterns obtained here seem also to be reflected in similar studies currently underway where assessments were made both before and after training ended so that it is probable that the phenomenon will replicate. Much more research will be required to clarify the precise process, but

initially at least it would appear that attitudes and motivation are implicated not only in second language acquisition but also second language attrition.

Summary and conclusions

This chapter was intended as a general summary where the major issues raised and the major results obtained could be discussed. The point was made again that it seems necessary to focus attention on the measurement properties of the variables investigated so that the conclusions drawn are based on solid evidence. This, it would seem, is mandatory in this area of research which is so complex and so open to interpretation.

Second language acquisition is an important social phenomenon and one that can have profound influences on both individual students and the communities from which they come. In this chapter I have attempted to highlight those issues that I consider most important and to focus on the major themes addressed throughout the book. In the process, I briefly discussed what I consider to be the primary concepts and/or developments in this area of research and to summarize important avenues for future research. In all probability, some readers will disagree with my selections and my emphases. I hope, however, that they will share my enthusiasm for this area of research. I hope, too, that this material will help to raise questions so that researchers will continue to explore this domain and, as a consequence, better understand the role of individual differences in second language acquisition. This is the primary focus of this book!

Appendix A

Instructions and items from the Attitude/Motivation Test Battery

Instructions

The following instructions precede the Likert form items. The items are presented in a random order, and for school children each item is typically followed by the scale as indicated in the example below. Other versions used for university level students use the format as suggested by Adorno *et al.* (1950).

Following are a number of statements with which some people agree and others disagree. There are no right or wrong answers since many people have different opinions. We would like you to indicate your opinion about each statement by circling the alternative below it which best indicates the extent to which you disagree or agree with that statement.

Following is a sample item. Circle the alternative below the statement which best indicates your feeling.

1. Canadian hockey players are better than Russian hockey players.

strongly	moderately	slightly	neutral	slightly	moderately	strongly
disagree	disagree	disagree		agree	agree	agree

In answering this question, you should have circled one of the above alternatives. Some people would circle strongly disagree, others would circle strongly agree, and still others would circle one of the alternatives in between. Which one you circled would indicate your own feelings based on everything you know and have heard. Note, there is no right or wrong answer. All that is important is that you indicate your personal feeling.

Please give your immediate reactions to each of the following items. Don't waste time thinking about each statement. Give your immediate feeling after reading each statement. On the other hand, please do not be careless, as it is important that we obtain your true feelings.

The following instructions precede the items for the scales, Motivational intensity, Desire to learn French, and Orientation index. The scoring key is not shown on the questionnaire when administered, and the items are presented in a random order.

Please answer the following items by circling the letter of the alternative which appears *most* applicable to you. We would urge you to be as accurate as possible since the success of this investigation depends upon it.

Appendix A.1

Attitudes toward French Canadians

1. French Canadians are a very sociable, warm-hearted and creative people.
2. I would like to know more French Canadians.
3. French Canadians add a distinctive flavour to the Canadian culture.
4. English Canadians should make a greater effort to learn the French language.
5. The more I get to know the French Canadians, the more I want to be fluent in their language.
6. Some of our best citizens are of French Canadian descent.
7. The French Canadian heritage is an important part of our Canadian identity.
8. If Canada should lose the French culture of Quebec, it would indeed be a great loss.
9. French Canadians have preserved much of the beauty of the old Canadian folkways.
10. Most French Canadians are so friendly and easy to get along with that Canada is fortunate to have them.

Interest in foreign languages

1. If I were visiting a foreign country I would like to be able to speak the language of the people.
2. Even though Canada is relatively far from countries speaking other languages, it is important for Canadians to learn foreign languages.
3. I wish I could speak another language perfectly.
4. I want to read the literature of a foreign language in the original language rather than a translation.
5. I often wish I could read newspapers and magazines in another language.
6. I would really like to learn a lot of foreign languages.
7. If I planned to stay in another country, I would make a great effort to learn the language even though I could get along in English.
8. I would study a foreign language in school even if it were not required.
9. I enjoy meeting and listening to people who speak other languages.
10. Studying a foreign language is an enjoyable experience.

Attitudes toward European French people

1. The European French are considerate of the feelings of others.
2. I have a favourable attitude towards the European French.
3. The more I learn about the European French, the more I like them.
4. The European French are trustworthy and dependable.
5. I have always admired the European French people.
6. The European French are very friendly and hospitable.
7. The European French are cheerful, agreeable and good humoured.
8. I would like to get to know the European French people better.
9. The European French are a very kind and generous people.
10. For the most part, the European French are sincere and honest.

*Attitudes toward learning French**Positively worded items*

1. Learning French is really great.
2. I really enjoy learning French.
3. French is an important part of the school programme.
4. I plan to learn as much French as possible.
5. I love learning French.

Negatively worded items

6. I hate French.
7. I would rather spend my time on subjects other than French.
8. Learning French is a waste of time.
9. I think that learning French is dull.
10. When I leave school, I shall give up the study of French entirely because I am not interested in it.

Integrative orientation

1. Studying French can be important to me because it will allow me to be more at ease with fellow Canadians who speak French.
2. Studying French can be important for me because it will allow me to meet and converse with more and varied people.
3. Studying French can be important for me because it will enable me to better understand and appreciate French Canadian art and literature.
4. Studying French can be important for me because I will be able to participate more freely in the activities of other cultural groups.

Instrumental orientation

1. Studying French can be important for me only because I'll need it for my future career.
2. Studying French can be important for me because it will make me a more knowledgeable person.
3. Studying French can be important to me because I think it will someday be useful in getting a good job.
4. Studying French can be important for me because other people will respect me more if I have a knowledge of a foreign language.

French class anxiety

1. It embarrasses me to volunteer answers in our French class.
2. I never feel quite sure of myself when I am speaking in our French class.
3. I always feel that the other students speak French better than I do.
4. I get nervous and confused when I am speaking in my French class.
5. I am afraid the other students will laugh at me when I speak French.

Parental encouragement

1. My parents try to help me with my French.

2. My parents feel that because we live in Canada, I should learn French.
3. My parents feel that I should continue studying French all through school.
4. My parents think I should devote more time to my French studies.
5. My parents really encourage me to study French.
6. My parents show considerable interest in anything to do with my French courses.
7. My parents encourage me to practise my French as much as possible.
8. My parents have stressed the importance French will have for me when I leave school.
9. My parents feel that I should really try to learn French.
10. My parents urge me to seek help from my teacher if I am having problems with my French.

Appendix A.2 Items for the scales using the multiple choice format

Motivational intensity

Scoring key

1. I actively think about what I have learned in my French class:
 - 3 a) very frequently.
 - 1 b) hardly ever.
 - 2 c) once in awhile.
2. If French were not taught in school, I would:
 - 2 a) pick up French in everyday situations (i.e., read French books and newspapers, try to speak it whenever possible, etc.).
 - 1 b) not bother learning French at all.
 - 3 c) try to obtain lessons in French somewhere else.
3. When I have a problem understanding something we are learning in French class, I:
 - 3 a) immediately ask the teacher for help.
 - 2 b) only seek help just before the exam.
 - 1 c) just forget about it.
4. When it comes to French homework, I:
 - 2 a) put some effort into it, but not as much as I could.
 - 3 b) work very carefully, making sure I understand everything.
 - 1 c) just skim over it.
5. Considering how I study French, I can honestly say that I:
 - 2 a) do just enough work to get along.
 - 1 b) will pass on the basis of sheer luck or intelligence because I do very little work.
 - 3 c) really try to learn French.
6. If my teacher wanted someone to do an extra French assignment, I would:

- 1 a) definitely not volunteer.
 - 3 b) definitely volunteer.
 - 2 c) only do it if the teacher asked me directly.
7. After I get my French assignments back, I:
- 3 a) always rewrite them, correcting my mistakes.
 - 1 b) just throw them in my desk and forget them.
 - 2 c) look them over, but don't bother correcting mistakes.
8. When I am in French class, I:
- 3 a) volunteer answers as much as possible.
 - 2 b) answer only the easier questions.
 - 1 c) never say anything.
9. If there were a local French T.V. station, I would:
- 1 a) never watch it.
 - 2 b) turn it on occasionally.
 - 3 c) try to watch it often.
10. When I hear a French song on the radio, I:
- 2 a) listen to the music, paying attention only to the easy words.
 - 3 b) listen carefully and try to understand all the words.
 - 1 c) change the station.

Desire to learn French

1. During French class, I would like:
- 2 a) to have a combination of French and English spoken.
 - 1 b) to have as much English as possible spoken.
 - 3 c) to have only French spoken.
2. If I had the opportunity to speak French outside of school, I would:
- 1 a) never speak it.
 - 3 b) speak French most of the time, using English only if really necessary.
 - 2 c) speak it occasionally, using English whenever possible.
3. Compared to my other courses, I like French:
- 3 a) the most.
 - 2 b) the same as all the others.
 - 1 c) least of all.
4. If there were a French Club in my school, I would:
- 2 a) attend meetings once in awhile.
 - 3 b) be most interested in joining.
 - 1 c) definitely not join.
5. If it were up to me whether or not to take French, I:

- 3 a) would definitely take it.
 - 1 b) would drop it.
 - 2 c) don't know whether I would take it or not.
6. I find studying French:
- 1 a) not interesting at all.
 - 2 b) no more interesting than most subjects.
 - 3 c) very interesting.
7. If the opportunity arose and I knew enough French, I would watch French TV programmes
- 2 a) sometimes.
 - 3 b) as often as possible.
 - 1 c) never.
8. If I had the opportunity to see a French play, I would:
- 2 a) go only if I had nothing else to do.
 - 3 b) definitely go.
 - 1 c) not go.
9. If there were French-speaking families in my neighbourhood, I would:
- 1 a) never speak French with them.
 - 2 b) speak French with them sometimes.
 - 3 c) speak French with them as much as possible.
10. If I had the opportunity and knew enough French, I would read French magazines and newspapers:
- 3 a) as often as I could.
 - 1 b) never.
 - 2 c) not very often.

Orientation index

1. I am studying French because:
- 1 a) I think it will some day be useful in getting a good job.
 - 2 b) I think it will help me to better understand French people and way of life.
 - 2 c) It will allow me to meet and converse with more and varied people.
 - 1 d) A knowledge of two languages will make me a better-educated person.

Appendix A.3 Semantic differential assessments of my French teacher and my French course

Instructions

The purpose of this part of the questionnaire is to determine your ideas and impressions about your French course and your French teacher. We call these

things concepts. In answering this section, you will be asked to rate these concepts on a number of scales. On the following pages, there is a concept given at the top of the page, and below that a group of scales. You are to rate each concept on each of the scales in order. Following is how you are to use the scales.

If the word at either end of the scale very strongly describes your ideas and impressions about the concept at the top of the page, you would place your check-mark as shown below:

friendly X : ____ : ____ : ____ : ____ : ____ : ____ unfriendly

Or

friendly ____ : ____ : ____ : ____ : ____ : ____ : X unfriendly

If the word at either end of the scale describes somewhat your ideas and impressions about the concept (but not strongly so), you would place your check-mark as follows:

dangerous ____ : X : ____ : ____ : ____ : ____ : ____ safe

Or

dangerous ____ : ____ : ____ : ____ : ____ : X : ____ safe

If the word at either end of the scale only slightly describes your ideas and impressions about the concept, you would place your check-mark as follows:

fast ____ : ____ : X : ____ : ____ : ____ : ____ slow

Or

fast ____ : ____ : ____ : ____ : ____ : X : ____ slow

If the word at either end of the scale doesn't seem to be at all related to your ideas and impressions about the concept, you would place your check-mark as follows:

useful ____ : ____ : ____ : X : ____ : ____ : ____ useless

If you rated the concept snake, your ratings may have been like the following:

Snake

friendly ____ : ____ : ____ : ____ : X : ____ : ____ unfriendly

dangerous X : ____ : ____ : ____ : ____ : ____ : ____ safe

fast ____ : ____ : ____ : ____ : ____ : X : ____ slow

useful ____ : ____ : ____ : X : ____ : ____ : ____ useless

In this example, snake is seen as slightly unfriendly, extremely dangerous, somewhat slow, and neither useful nor useless. There are no right or wrong answers. We want you to indicate your own ideas and impressions. If you have any questions, please ask them now. In answering this part of the questionnaire, work quickly and don't stop to think about each scale. It is your immediate impressions in which we are interested.

My French teacher

efficient	____ : ____ : ____ : ____ : ____ : ____ : ____	inefficient
insensitive	____ : ____ : ____ : ____ : ____ : ____ : ____	sensitive
cheerful	____ : ____ : ____ : ____ : ____ : ____ : ____	cheerless
competent	____ : ____ : ____ : ____ : ____ : ____ : ____	incompetent
insincere	____ : ____ : ____ : ____ : ____ : ____ : ____	sincere
unapproachable	____ : ____ : ____ : ____ : ____ : ____ : ____	approachable
pleasant	____ : ____ : ____ : ____ : ____ : ____ : ____	unpleasant
trusting	____ : ____ : ____ : ____ : ____ : ____ : ____	suspicious

My French course

meaningful	_____ : _____ : _____ : _____ : _____ : _____ :	meaningless
enjoyable	_____ : _____ : _____ : _____ : _____ : _____ :	unEnjoyable
monotonous	_____ : _____ : _____ : _____ : _____ : _____ :	absorbing
effortless	_____ : _____ : _____ : _____ : _____ : _____ :	hard
awful	_____ : _____ : _____ : _____ : _____ : _____ :	nice
interesting	_____ : _____ : _____ : _____ : _____ : _____ :	boring
good	_____ : _____ : _____ : _____ : _____ : _____ :	bad
simple	_____ : _____ : _____ : _____ : _____ : _____ :	complicated
disagreeable	_____ : _____ : _____ : _____ : _____ : _____ :	agreeable
fascinating	_____ : _____ : _____ : _____ : _____ : _____ :	tedious
worthless	_____ : _____ : _____ : _____ : _____ : _____ :	valuable
necessary	_____ : _____ : _____ : _____ : _____ : _____ :	unnecessary
appealing	_____ : _____ : _____ : _____ : _____ : _____ :	unappealing
useless	_____ : _____ : _____ : _____ : _____ : _____ :	useful
elementary	_____ : _____ : _____ : _____ : _____ : _____ :	complex
pleasurable	_____ : _____ : _____ : _____ : _____ : _____ :	painful
educational	_____ : _____ : _____ : _____ : _____ : _____ :	noneducational
unrewarding	_____ : _____ : _____ : _____ : _____ : _____ :	rewarding
difficult	_____ : _____ : _____ : _____ : _____ : _____ :	easy
satisfying	_____ : _____ : _____ : _____ : _____ : _____ :	unsatisfying
unimportant	_____ : _____ : _____ : _____ : _____ : _____ :	important
pleasant	_____ : _____ : _____ : _____ : _____ : _____ :	unpleasant
exciting	_____ : _____ : _____ : _____ : _____ : _____ :	dull
clear	_____ : _____ : _____ : _____ : _____ : _____ :	confusing
colourful	_____ : _____ : _____ : _____ : _____ : _____ :	colourless

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