

Gardner and Lambert (1959): Fifty Years and Counting¹
R. C. Gardner
Department of Psychology
University of Western Ontario

My intent today is to present an overview of our research on the Socio-educational Model of Second Language Acquisition. Little did I realize when I was working on my MA thesis, that it would form the foundation for much of the research that I would pursue over my career. The initial idea for my thesis began with a conversation between Wally Lambert and me, and the Gardner and Lambert (1959) paper was the last of three studies in my MA thesis (Gardner, 1958).

There wasn't much of a literature associated with this type of research. Historically, it was generally believed that learning languages was the sign of an educated person (Kelly, 1969), and that a major determinant of success in doing so was the individuals' level of intelligence. As a consequence, tests of intelligence came to be used as predictors of ultimate success. Later, some dissatisfaction was expressed with these tests (Henmon, 1929), and there developed a number of "special prognosis tests" in order to improve prediction (see, for example, Symonds, 1929). These special prognosis tests ultimately gave way to measures of language aptitude, tests of various verbal abilities believed necessary to succeed in learning another language (Carroll, 1958). There was also some research concerned with the relation of attitudes toward the language course and its relation to success in the course (Jordan, 1941). But that was it!

My MA thesis was based on the hypothesis that in order to learn another language well, an individual had to have some reason for doing so that involved the other-language community, and our focus was on such reasons as well as on indices of attitudes toward the other language community, motivation, authoritarianism, audience anxiety, and sex. The first two studies in my thesis were essentially pilot studies; the thesis really came together in the third study. That study investigated a sample of 75 grade 11 English speaking students in Montreal learning French in the regular school program. It involved a factor analysis of 14 variables, comprising one measure of achievement in French, 7 language aptitude and verbal intelligence tests, and the 6

¹ This manuscript was the basis of a talk delivered in a symposium on "Perceptions on motivation for second language learning on the 50th anniversary of Gardner & Lambert (1959)" at the annual meetings of the Canadian Association of Applied Linguistics/ Association canadienne de linguistique appliquée, Ottawa, May, 2009.

non-ability variables listed above.

Two of the four factors extracted obtained high loadings from the measure of French achievement suggesting that there were two factors involved in learning French. One was identified as a linguistic aptitude dimension because it received high loadings from the 7 verbal ability measures, confirming that achievement in French was related to language aptitude. The other was defined as a motivation factor; it received high loadings from the measures of motivation, attitudes toward French Canadians, and the orientation index. This latter variable forced students to choose between integrative and instrumental reasons for learning French as most applicable to them, and was scored dichotomously such that a high score reflected an integrative reason. Thus, the factor was interpreted as indicating that those students who expressed integrative reasons for learning French, were more highly motivated and had more favourable attitudes toward French Canadians and were more successful at learning French. We concluded that the factor described a “motivation of a particular type, *characterized by a willingness to be like valued members of the language community*” (p. 271, italics in the original). Investigation of the correlation matrix reveals that only three of the variables had correlations with achievement that were significant at the per family .05 level once a Bonferroni adjustment was applied to account for the 13 correlations computed. The three significant predictors were Verbal Analogies ($r = .42$), Motivational Intensity ($r = .40$), and the Orientation Index ($r = .34$). Because the Orientation Index was a dichotomous measure, the significant correlation indicated that individuals who were integratively oriented were more successful at learning the second language than were individuals who were instrumentally oriented. This, as it turns out was the one finding that caught the interest of many researchers and educators. Even today, there are discussions of the relative potency of integrative and instrumental orientations in learning a second language.

The socio-educational model of second language acquisition is much more complex than this, however, and for the last 50 years, I have been conducting research devoted to examining the implications and consequences of the motivation that was initially identified in the factor structure of the 1959 study. The relevant research includes:

- a. 1959-1960: My Ph.d. dissertation.
- b. 1960-1962: The American studies.

Wally Lambert and I conducted studies in three parts of the United States, Maine, Louisiana, and Connecticut. Samples of English speaking highschool students were obtained from the three areas, and samples of students from Franco-American homes were tested in Maine and Louisiana. This research was subsequently published (Gardner & Lambert, 1972).

c. 1972-1974: The London, Ontario studies.

In 1971, P.C. Smythe and I applied to the Ontario Ministry Grants- in-Aid to Education program to investigate the role of aptitude and motivation in determine achievement in French among students in grades 7 to 11 in London, Ontario. From the beginning, we endeavoured to identify variables that appeared to be important for language learning based on our experience, and observations from a number of language educators in the London system. Because a number of variables were considered, we made use of a construct oriented approach to scale construction rather than a factor analytic one. In this approach, potential items were written and debated by our staff following explicit definitions of the concepts. Once the scales were administered, item analyses were conducted and the items selected were those that correlated more highly with their intended scale than with the other scales. This was done separately for each of the five grade levels of students, and the final set of items were selected so that they were equally applicable to each of the grade levels (see Gardner & Smythe, 1975). This marked the beginning of the Attitude Motivation Test Battery (AMTB).

d. 1974-1980: The Cross Canada Research

Based on this research, we applied for financial support from the Secretary of State to conduct similar studies in various parts of Canada, ultimately obtaining data from samples in British Columbia, Alberta, Manitoba, Ontario, Quebec, and New Brunswick.

e. 1980 - 2000: Continuation of the research program.

With the financial assistance of the Social Sciences and Humanities Research Council of Canada, we conducted a number of studies in a number of different contexts and circumstances.

f. 2000- present: The International studies.

Initially, with support from SSHRCC, we conducted international studies of the AMTB focusing on English as a foreign language. We have obtained information on two age/grade samples in six countries, Croatia, Poland, Romania, Spain, Brazil, and Japan.

As it has developed, the AMTB has a definite structure that comprises 11 scales

measuring five constructs. The five constructs are Attitudes toward the learning Situation (ALS), Integrativeness (INT), Motivation (MOT), Language Anxiety (ANX), and Instrumental Orientation (INO). For young students, we have one additional measure, Parental Encouragement (PE). Table 1 presents the five constructs and the scales used to assess them.

Table 1
Constructs and Scales from the AMTB

Construct	Scales
Motivation	Motivational intensity Desire to learn the language Attitudes toward learning the language
Integrativeness	Integrative orientation Interest in foreign languages Attitudes toward the target language community
Attitudes toward the Learning Situation	Language teacher evaluation Language course evaluation
Language Anxiety	Language class anxiety Language use anxiety
Instrumentality	Instrumental orientation

Much of our initial research involved the scales directly and their relation to each other as well as to other variables associated with second language acquisition. Later, attention was directed to aggregate scores assessing each of the constructs. These aggregates are based on the item mean-level scores so that, on a seven point scale, aggregate scores vary from 1 to 7. In some research, some of these aggregate scores were in turn aggregated to form a score that characterized integrative motivation. As currently conceptualized, integrative motivation is reflected in four of these measures. This doesn't mean to suggest that there is such a thing as "an integrative motive" like, for example, a hunger motive, etc... It means simply that an individual can be said to be integratively motivated if he/she:

1. Is motivated to learn the language
2. Exhibits integrativeness - - i.e., an openness to other cultural communities
3. Has favourable attitudes toward the learning situation

4. Reflects low levels of language anxiety

Thus, if a researcher wanted to obtain one score to reflect integrative motivation (IM), she/he could compute an aggregate of the four mean aggregate scores:

$$IM = INT + ALS + MOT - ANX.$$

Note that this conceptual organization recognizes that these variables will be related to each other, but it does not imply that they would necessarily form one dimension in a factor analytic investigation. This might well be the case depending on the nature of the sample and the variables involved (as they have in some studies) but they need not do so. In fact, in one multimethod analysis (Gardner & MacIntyre, 1993) involving university students of French in London, five factors were obtained reflecting the five constructs listed in Table 1. Thus, the concept of the integrative motive is much more complex than simply expressing an integrative orientation in language study. Studies that contrast individuals who express integrative vs instrumental reasons for studying the language are dealing with only a small part of what we consider integrative motivation. Furthermore, we recognize that individuals can be motivated to learn another language for many reasons but if integrativeness is low, it would not be characterized as an instance of integrative motivation.

The Socio-educational Model of Second Language Acquisition.

Much of our research was based on the socio-educational model of second language acquisition which proposes that achievement in a second language is largely a function of two individual difference variables, language aptitude and motivation. This does not mean to play down the influence of various educational practices designed to improve on the quality of instruction, but simply to recognize that the success of such practices will be mediated by characteristics of the individual student, and that language aptitude and motivation are hypothesized to be the dominant ones. That is, a good practice will have a greater influence on students with high levels of language aptitude and motivation.

Very little research has been done on factors that will influence an individual's level of language aptitude, but the bulk of our research suggests that there are two factors that can serve as support for motivation. One is referred to as the educational context (see Gardner, 2007). This refers to any characteristic of the educational environment that can play a role in motivating the student to learn the language, varying from policies of the relevant board of education to the

general environment in the school (i.e., the principal's views of language instruction) and more directly the language classroom environment. In the AMTB, focus is placed on evaluation of the course and the teacher largely because they are the main point of contact for the individual student (but see Gardner, Smythe & Pierson, 1983). The second context is the cultural one (cf., Gardner, 2007) which refers to any aspect of the individual's social world that has implications for second language learning. It can include such things as cultural beliefs concerning the relevance and importance of language study, purposes for second language learning, home background characteristics, peer pressure, etc... All of these features are expressed in the individual's attitudes, beliefs, ideals, expectations, etc., as they relate to learning the second language. In the AMTB, this general class is identified as integrativeness, referring to an openness to other language communities, and is assessed by three measures, interest in foreign languages, an integrative orientation in language study, and favorable attitudes toward the target language community.

The Relation of Integrative Motivation to Second Language Achievement.

The AMTB has served as the foundation for much of our research and with it, we have investigated a number of different phenomena associated with learning a second language. In the beginning, our initial focus was on identifying variables that appeared to influence the degree of success an individual would have in learning the language. Thus, the dependent variables were generally measures of achievement in the language, and the independent variables or predictors were various measures of aptitude, attitudes and motivation, primarily, but not always the 11 scales forming the AMTB. The majority of our studies (indicated in Table 2) demonstrated that integrative motivation, as reflected in the four constructs that characterize it, is associated with success in learning the language. Many of these studies made use of factor analysis to determine the underlying dimensionality of the variables and often included measures of language aptitude to identify the relative contribution of ability and motivation. In more recent years we have tended to focus less on the individual measures and more on aggregate scores representing the five constructs assessed by the AMTB (or six, if Parental Encouragement is included for young students).

The relative contributions of Integrativeness, Attitudes toward the Learning Situation, Motivation and the two orientations (Integrative and Instrumental) were the subject matter of a

meta-analysis of this research. It demonstrated that Motivation was by far the highest correlate of achievement followed by Integrativeness and Attitudes toward the Learning Situation (Masgoret & Gardner, 2003). The two orientations, by themselves, demonstrated much lower correlations with the integrative orientation tending to be a slightly higher correlate than the instrumental orientation, on average.

Table 2

Studies concerned with Predicting Language Achievement in Classroom Contexts

Type of Study	Publications
Prediction of Language Achievement	Gardner & Lambert (1959) Gardner & Lambert (1972) Gardner & Smythe (1975) Gardner, Smythe, Clément & Glikzman (1976) Clement, Gardner & Smythe (1977) Clément, Major, Gardner & Smythe (1977) Gardner (1980) Clément, Gardner & Smythe (1980) Gardner & Smythe (1981) Gardner (1985) Lalonde & Gardner (1985) Gardner (2006)
Meta Analysis	Masgoret & Gardner (2003)

The Relation of Integrative Motivation to Other Types of Variables.

We have investigated other aspects of second language acquisition and their relation to the indices of integrative motivation, finding positive associations (for relevant areas of study, see Table 3). Thus, we demonstrated that students who exhibited high scores on the indices of integrative motivation participated more actively in language class, volunteering and responding correctly more frequently and showing greater satisfaction with the class, were more likely to continue language study rather than drop out when the course was no longer required, were more active in trying to maintain their language skills after their language training was finished, and were more likely to take part in bicultural excursion programs and seek contact with members of the language community than students scoring lower on these indices.

An investigation of personality correlates of measures of Language Achievement, Language Aptitude, Integrativeness, Motivation and Attitudes toward the Learning Situation

found relatively few correlates involving the personality measures. A structural equation model revealed that a personality construct, Analytic Orientation, defined by Breadth of Interest, Complexity, Innovation, and lack of Conformity accounted for differences in Integrativeness but were not directly associated with either Motivation or Language Achievement.

Finally, an investigation of Home Background characteristics using a retrospective design with university students studying psychology in which they completed a modified version of the AMTB with some scales referring to their views when studying French in highschool and others to their views at the time of testing. The results supported a causal model linking early views with current attitudes, motivation, and self-perceptions of language proficiency.

Table 3
Other Types of Variables Investigated

Type of Study	Publications
Language classroom behaviour	Gliksman, Gardner, & Smythe (1982)
Persistence in Language study	Clément, Smythe & Gardner (1978)
Second language retention	Gardner (1982) Gardner, Lalonde & MacPherson (1985) Gardner, Lalonde, Moorcroft & Evers (1987) Gardner, Moorcroft & Metford (1989) Gardner & Lysynchuk (1990)
Bicultural Excursion Programs	Gardner, Kirby, Smythe, Dumas, Zelman & Bramwell (1974) Clément, Gardner & Smythe (1977) Desrochers & Gardner (1981)
Personality Correlates	Lalonde & Gardner (1984)
Home Background	Gardner, Masgoret & Tremblay (1999)

On the Process Underlying the Role of Integrative Motivation in Language Learning.

A number of our studies have focused on process (see Table 4). Initially, our studies employed factor analytic techniques to isolate factors underlying the various measures. This research demonstrated that variance associated with achievement in the language was often associated with dimensions of aptitude and ability on the one hand and attitudes and motivation on the other. We argued as a consequence that two basic factors were associated with

achievement in the language, aptitude and motivation. Later with the advancement of structural equation procedures we evaluated specific “causal models”, demonstrating good indices of fit. The basic model treats Integrativeness and Attitudes toward the Learning Situation as two exogenous variables that support Motivation while Motivation and Language Aptitude (when included in a study) are viewed as influences of Second Language Achievement. Language Anxiety is included in some models, but in the development of second language achievement it is seen as a result of experiences with the language, and thus would be viewed as a variable that is both a cause (exogenous variable) and an effect (endogenous variable) of language achievement. Tremblay and Gardner (1995) tested a variant of the model that included a number of other motivational components but the basic structure was maintained. More recently, we have made use of path analysis and hierarchical linear modeling procedures to test specific aspects of the socio-educational model of second language acquisition and the effects that individual language classes have on the overall patterns identified. The results indicated that although the model overall was clearly supported, there were class differences in some of the coefficients, indicating that characteristics of the class could influence the viability of the model.

Other studies have focused on the language learning situation and their interaction with characteristics of integrative motivation. For example, we investigated changes in attitudes and motivation over the duration of the class and related these to final levels of achievement in the class. We demonstrated that students who began the year with high levels of attitudes and motivation tended to be more successful in the course, but moreover that students who were more successful in the course tended to maintain high levels of attitudes and motivation while those with lower grades showed lower levels at the end of the year, particularly in terms of attitudes toward the language learning situation.

We found too that there was a general level of agreement between students and their teachers about the use of teaching strategies in the classes, but that although there was no correlation between teacher’s reports of the use of teaching strategies and students motivation, there were significant correlations between the students’ perceptions of strategy use and their levels of motivation. That is, to the extent that students recognize that various strategies are being employed, this will impact on their levels of motivation. That research also demonstrated

that student integrative motivation was higher in classes where teachers were highly motivated. Of course, this is not overly surprising, in that characteristics of the classroom environment can influence student motivation. We demonstrated this quite early in our research where we contrasted a student centred program with the traditional three day a week university course. Indices of integrative motivation were higher in the student-centred program though they decreased over the duration of the course for both types of classes.

Our research has been conducted in a number of different contexts in order to test the generality of the findings. In one study of intensive language programs, an integrative motive factor was associated with French oral expression and satisfaction with the program at the end of the course for a Canadian sample but not for a sample of Americans suggesting that cultural background might influence the relationship of attitudinal motivational characteristics with achievement. In another study, achievement in the second language was more associated with language aptitude than integrative motivation though integrative motivation was associated with the intention to continue language study. The rather slim results of these studies might well reflect the homogeneity of these participants. The samples consisted of individuals who had enrolled in these short-term but intensive programs in order to improve their language skills, and thus it is likely that there were relatively few individual differences in levels of integrative motivation.

Table 4
Focus on Process

Type of Study	Publications
Structural Equation Models	Gardner, Lalonde & Pierson (1983) Gardner (1983) Lalonde & Gardner (1984) Gardner, Lalonde, Moorcroft & Evers (1987) Gardner & Lysynchuk (1990) Tremblay & Gardner (1995) Gardner, Tremblay & Castillo (1997) Gardner, Tremblay & Masgoret (1997) Gardner, Masgoret & Tremblay (1999)
Hierarchical Linear Models	Bernaus & Gardner (2008)
Changes over the academic year	Gardner, Masgoret, Tennant & Mihic (2004) Gardner (2005)
Teacher motivating strategies	Bernaus & Gardner (2008)
Teacher motivation	Bernaus, Gardner & Wilson (in press)
Course related effects	Gardner, Ginsberg & Smythe (1976)
Intensive language study	Gardner, Smythe & Brunet (1977) Gardner, Smythe & Clément (1979) Gardner, Moorcroft & Metford (1989)

Laboratory Studies of Integrative Motivation and Language Learning.

In addition to investigating students of second languages, we have also conducted laboratory studies to investigate specific hypotheses developing from our research (see Table 5). Some of them involved a paired associates learning paradigm where we studied the rate of learning vocabulary in the other language. The results demonstrated that integratively motivated individuals learned the words at a faster rate than those who were not integratively motivated. One study contrasted integrative with instrumental motivation and demonstrated that both influenced the rate of learning. Moreover, participants in the instrumental motivation condition evidenced higher levels of motivation than those in the integrative motivation condition until they realized that they would not satisfy their goal, at which time their effort declined. Another

study demonstrated that state motivation was influenced by trait motivation which in turn had a direct effect on the rate of learning the words.

The language laboratory also served as a venue for one study which assessed the relation of integrative motivation as assessed by a short form of the AMTB (the mini-AMTB) with performance in a ten session independent-study multi-media laboratory. Students were tested in the fifth and the tenth session. The results indicated that scores on the characteristics of integrative motivation were relatively stable over the duration of the program and that grades obtained in the tenth session were higher for students with high levels of integrative motivation in both the fifth and the tenth session than for students with low levels.

Table 5
Laboratory Studies

Type of Study	Publications
Rate of Vocabulary Learning	Gardner, Lalonde & Moorcroft (1985) Gardner & MacIntyre (1991) Gardner, Day & MacIntyre (1992) Tremblay, Goldberg & Gardner (1995) Gardner & Tremblay (1998)
Type of Motivation	Gardner & MacIntyre (1991)
State Motivation	Tremblay, Goldberg, & Gardner (1995)
mini-AMTB	Masgoret, Bernaus & Gardner (2001) Tennant & Gardner (2004)

Integrative Motivation and Grades in English in the International Samples.

Much of our research has been conducted in Canada with samples of English and French Canadian students learning the other official language, and it has often been stated that this explains the results obtained. That is, it has been argued that because Canada is a bilingual country, it would be expected that integrative motivation would be involved in the learning of a second language (cf., Dörnyei, 1990; Oxford & Shearin, 1994), but that it is doubtful that it would apply equally to the learning of a foreign language. In recent studies, therefore, we turned our attention to samples of students learning English as a foreign language in six different countries. We developed an international version of the AMTB, directed toward learning

English as a foreign language, and administered it in the language of the research participants. Evidence indicates that the internal consistency reliability of the subtests and the factor structure of the AMTB are consistent over the six countries and similar to results obtained in Canada (Gardner, 2006). Table 5 presents the correlations of the integrative motive score referred to earlier and grades in English for samples of students in primary and secondary school students in each of the six countries.²

Examination of Table 5 will demonstrate that the correlations are all consistently high (with the possible exception of the primary school students in Romania). The median correlation is .45, which is very close to the value of .50 that Cohen (1988) describes as a strong effect. It should be emphasized that these are simple bivariate correlations of the aggregate score with the criterion, and not multiple correlations, and that such a level of predictive validity is not common. It should be noted too that there is relatively little variability in these validity correlations. That is the results tend to be very consistent; much higher so than if correlations of the elements of integrative motivation were considered separately. In short, there is considerable evidence that integrative motivation is implicated in the learning of a second language regardless of the nature of the cultural context in which the research is conducted.

² Students in Japan were from junior and senior university classes, and English grades were not available. The criterion in this case is an aggregate of self ratings using a modified version of the Cando scales assess self-perceptions of speaking, reading, understanding and writing English.

Table 5
Correlations of Integrative Motivation Score with Grades in the International Samples

Samples	N	Correlation
Croatia: Primary	166	.50
Secondary	148	.40
Poland: Primary	185	.47
Secondary	157	.47
Romania: Primary	152	.21
Secondary	155	.40
Spain: Primary	302	.41
Secondary	166	.39
Brazil: Primary	154	.44
Secondary	119	.48
Japan: Junior (self-ratings)	214	.61
Senior (self-ratings)	131	.47

Conclusions.

The intent of this manuscript was to trace the development of the research associated with the concept of integrative motivation in second language acquisition and to clarify its definition and measurement by means of the AMTB. As indicated, it is not a motive in the same way as the hunger drive or any of the various social motive that have been proposed in the literature. It is an inference made on the basis of an individual's behaviour, emotions, and beliefs, and involves four constructs, motivation, integrativeness, attitudes toward the learning situation, and an absence of language anxiety. Similarly, it is not static; elements of it are subject to change over time and consequence. It is relevant in the school context largely because the learning of a second language involves the acquisition of material that characterizes another cultural community, and as such is different from other aspects of school learning. The socio-educational model of second language acquisition is consistent with other models of school learning that posit that school achievement is mediated by ability and motivation, but it adds the construct of integrativeness to recognize the importance of the individual's openness to accepting and incorporating material from these other cultures as part of his/her identity.

References

- Bernaus, M. & Gardner, R. C. (2008). Teacher motivation strategies, student perceptions, student motivation, and English achievement. Modern Language Journal, *92*, 387-401.
- Bernaus, M., Gardner, R.C., & Wilson, A. (in press). Teachers' motivation, classroom strategy use, students' motivation and second language achievement. Porta Linguarum.
- Carroll, J. B. (1958). A factor analysis of two foreign language aptitude batteries. Journal of General Psychology, *59*, 3-19.
- Clément, R., Gardner, R. C., & Smythe, P. C. (1977). Motivational variables in second language acquisition: A study of francophones learning English. Canadian Journal of Behavioural Science, *9*, 123-133.
- Clément, R., Gardner, R. C., & Smythe, P. C. (1977). Inter-ethnic contact: Attitudinal consequences. Canadian Journal of Behavioural Science, *9*, 205-215.
- Clément, R., Gardner, R. C., & Smythe, P. C. (1980). Social and individual factors in second language acquisition. Canadian Journal of Behavioural Science, *12*, 293-302.
- Clément, R., Major, L. J., Gardner, R. C., & Smythe, P. C. (1977). Attitudes and motivation in second language acquisition: An investigation of Ontario francophones. Working Papers on Bilingualism, *12*, 1-20.
- Clément, R., Smythe, P. C., & Gardner, R. C. (1978). Persistence in second language study: Motivational considerations. Canadian Modern Language Review, *34*, 688-694.
- Cohen, J. (1988). Statistical power analysis for the behavioral sciences. (Second edition). Hillsdale, NJ: Lawrence Erlbaum.
- Desrochers, A., & Gardner, R. C. (1981). Second-language acquisition: An investigation of a bicultural excursion experience. Quebec: International Centre for Research on Bilingualism.
- Gardner, R. C. (1958). Social factors in second-language acquisition. Unpublished, Master's thesis, McGill University, Montreal, Canada.
- Gardner, R. C. (1960). Motivational variables in second-language acquisition. Unpublished Doctoral dissertation, McGill University, Montreal, Canada.
- Gardner, R. C. (1980). On the validity of affective variables in second language acquisition: conceptual, contextual, and statistical considerations. Language Learning, *30*, 255-270.

- Gardner, R. C. (1982). Social factors in language retention. Chapter 2 in R. D. Lambert & B. Freed (Eds.), Loss of language skills. Rowley, MA: Newbury House.
- Gardner, R. C. (1983). Learning another language: A true social psychological experiment. Journal of Language and Social Psychology, 2, 219-239.
- Gardner, R. C. (1985). Social psychology and second language learning: The role of attitudes and motivation. London, GB: Edward Arnold.
- Gardner, R. C. (2001). Integrative motivation and second language acquisition. In Z. Dörnyei & R. Schmidt (Eds.), Motivation and second language acquisition. Honolulu, HI: The University of Hawaii, Second Language Teaching & Curriculum Center, 1-19.
- Gardner, R.C. (2005). Integrative motivation and second language acquisition. Canadian Association of Applied Linguistics/Canadian Linguistics Association Joint Plenary Talk, London, ON (available at <http://publish.uwo.ca/~gardner/>).
- Gardner, R. C. (2006). The socio-educational model of second language acquisition: A research paradigm. In S. H. Foster-Cohen, M. Medved Krajnovic, & J. Mihaljevic Djigunovic (Eds.), EUROSLA Yearbook, 6, Amsterdam, John Benjamins Publishing Company.
- Gardner, R. C. (2007). Motivation and second language acquisition. Porta Linguarum, 8, 9-20.
- Gardner, R. C., Day, B., & MacIntyre, P. D. (1992). Integrative motivation, induced anxiety, and language learning in a controlled environment. Studies in Second Language Acquisition, 14, 197-214.
- Gardner, R. C., Ginsberg, R. E., & Smythe, P. C. (1976). Attitude and motivation in second-language learning: Course related changes. Canadian Modern Language Review, 32, 243-266.
- Gardner, R. C., Kirby, D. M., Smythe, P. C., Dumas, G., Zelman, M., & Bramwell, J. R. (1974). Bicultural excursion programs: Their effects on students' stereotypes, attitudes and motivation. Alberta Journal of Educational Research, 20, 270-277.
- Gardner, R. C., Lalonde, R. N., & MacPherson, J. (1985). Social factors in second-language attrition. Language Learning, 35, 519-540.
- Gardner, R. C., Lalonde, R. N., & Moorcroft, R. (1985). The role of attitudes and motivation in second language learning: Correlational and experimental considerations. Language Learning, 35, 207-227.
- Gardner, R. C., Lalonde, R. N., Moorcroft, R., & Evers, F. T. (1987). Second language attrition: The role of motivation and use. Journal of Language and Social Psychology, 6, 29-47.

- Gardner, R. C., Lalonde, R. N., & Pierson, R. (1983). The socio-educational model of second language acquisition: An investigation using LISREL causal modeling. Journal of Language and Social Psychology, 2, 51-65.
- Gardner, R. C., & Lambert, W. E. (1959). Motivational variables in second language acquisition. Canadian Journal of Psychology, 13, 266-272.
- Gardner, R. C. & Lambert, W. E. (1972). Attitudes and motivation in second-language learning., Rowley, MA: Newbury House Publishers.
- Gardner, R. C., & Lysynchuk, L. M. (1990). The role of aptitude, attitudes, motivation and language use on second-language acquisition and retention. Canadian Journal of Behavioural Science, 22, 254-270.
- Gardner, R. C., & MacIntyre, P. D. (1991). An instrumental motivation in language study: Who says it isn't effective? Studies in Second Language Acquisition, 13, 57-72.
- Gardner, R. C., & MacIntyre, P. D. (1993). On the measurement of affective variables in second language learning. Language Learning, 43, 157-194.
- Gardner, R. C., Masgoret, A.-M., Tennant, J. & Mihic, L. (2004). Integrative motivation: Changes during a year-long intermediate-level language course. Language Learning, 54, 1-34.
- Gardner, R. C., Masgoret, A.-M., & Tremblay, P. F. (1999). Home background characteristics and second language learning. Journal of Language and Social Psychology, 18, 419-437.
- Gardner, R. C., Moorcroft, R., & Metford, J. (1989). Second language learning in an immersion programme: Factors influencing acquisition and retention. Journal of Language and Social Psychology, 8, 287-305.
- Gardner, R. C., & Smythe, P. C. (1975). Motivation and second-language acquisition. The Canadian Modern Language Review, 31, 218-230.
- Gardner, R.C. & Smythe, P. C. (1975). Second language acquisition: A social psychological approach. Research Bulletin, No. 332, Department of Psychology, University of Western Ontario, London, Canada.
- Gardner, R. C., & Smythe, P. C. (1981). On the development of the Attitude/ Motivation Test Battery. Canadian Modern Language Review, 37, 510-525.
- Gardner, R. C., Smythe, P. C., & Brunet, G. R. (1977). Intensive second language study: Effects on attitudes, motivation and French achievement. Language Learning, 27, 243-261.

- Gardner, R. C., Smythe, P. C., & Clément, R. (1979). Intensive second language study in a bicultural milieu: An investigation of attitudes, motivation and language proficiency. Language Learning, 29, 305-320.
- Gardner, R. C., Smythe, P. C., Clément, R., & Glikzman, L. (1976). Second language learning: A social psychological perspective. Canadian Modern Language Review, 32, 198-213.
- Gardner, R. C., & Tremblay, P. F. (1998). Specificity of affective variables and the trait/state conceptualization of motivation in second language acquisition. In R. Agnihotri, A.L. Khanna, & I. Sachdev (Eds.), Social psychological perspectives on second language learning. New Delhi, India: Sage.
- Gardner, R. C., Tremblay, P. F., & Castillo, E. S. (1997). A study of the roles of aptitude, attitude and motivation in second language acquisition: Revisited. In E. S. Castillo (Ed.), Alay sa wilka: Essays in honor of Fe T. Otones on her 67th birthday. Manila: The Linguistic Society of the Philippines, p. 101-110.
- Gardner, R. C., Tremblay, P. F., & Masgoret, A.-M. (1997). Towards a full model of second language learning: An empirical investigation. Modern Language Journal, 81, 344-362.
- Glikzman, L., Gardner, R. C., & Smythe, P. C. (1982). The role of the integrative motive on students' participation in the French classroom. Canadian Modern Language Review, 38, 625-647.
- Henmon, V. A. C. (1929). Prognosis tests in the modern foreign languages. In V.A.C. Henmon (Ed.) Prognosis tests in the modern foreign languages. New York: MacMillan.
- Jordan, D. (1941). The attitude of central school pupils to certain school subjects, and the correlation between attitude and attainment. British Journal of Educational Psychology, 11, 28-44.
- Kelly, L. G. (1969). Twenty-five centuries of language teaching: 500 BC - 1969. Rowley, MA: Newbury House.
- Lalonde, R. N., & Gardner, R. C. (1984). Investigating a causal model of second language acquisition: Where does personality fit? Canadian Journal of Behavioural Science, 16, 224-237.
- Lalonde, R. N., & Gardner, R. C. (1985). On the predictive validity of the Attitude/Motivation Test Battery. Journal of Multilingual and Multicultural Development, 6, 403-412.
- Masgoret, A.-M., Bernaus, M., & Gardner, R. C. (2001). Examining the role of attitudes and motivation outside of the formal classroom: A test of the mini-AMTB for children. In Z. Dörnyei & R. Schmidt (Eds.), Motivation and second language acquisition. Honolulu,

HI: The University of Hawaii, Second Language Teaching & Curriculum Center, pp. 281-295.

Masgoret, A.-M. & Gardner, R. C. (2003). Attitudes, motivation, and second language learning: A meta-analysis of studies conducted by Gardner and Associates. Language Learning, 53, 123-163.

Symonds, P. M. (1929). A modern foreign language prognosis test. In V.A.C. Henmon (Ed.) Prognosis tests in the modern foreign languages. New York: MacMillan.

Tennant, J. & Gardner, R. C. (2004) The Computerized mini-AMTB. The CALICO Journal (Computer Assisted Language Instruction Consortium), 21, 245-263.

Tremblay, P. F., & Gardner, R. C. (1995). Expanding the motivation construct in language learning. Modern Language Journal, 79, 505-518.

Tremblay, P. F., Goldberg, M. P., & Gardner, R. C. (1995). Trait and state motivation and the acquisition of Hebrew vocabulary. Canadian Journal of Behavioural Science, 27, 356-370.