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**LA THÈSE A ÉTÉ
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AN INVESTIGATION OF THE RELATIONSHIP BETWEEN
INTEGRATIVE ORIENTATION IN SECOND LANGUAGE
LEARNING, DOGMATISM AND ATTITUDE TOWARD THE
FIRST LANGUAGE, GROUP

by Susanne M. Koscielecki

Thesis presented to the School of
Graduate Studies and Research of
the University of Ottawa in partial
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CURRICULUM STUDIORUM

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INTRODUCTION

Since 1967 when the federal government enacted legislation making French and English the official languages of Canada, there has been an increasing emphasis placed on bilingualism. This has led to the development of language schools for federal government employees, an increased number of language courses at all levels of education and such activities as cultural exchange programs.

At the same time there has been an increased interest in research on second language learning. Considerable attention has been given to experimental projects utilizing different language materials and teaching methods. An effort is also being made to develop a socio-psychological theory of second language learning in order to better understand the role of motivation and attitudes in the process of acquiring a second language.

The theory has evolved from W.E. Lambert's consideration of the role of identification in first language acquisition. This provided the rationale for the concept of an integrative orientation as an important, facilitating factor in second language acquisition. Although the theory has been extended recently, the bases underlying an integrative orientation remain to be thoroughly investigated.

The purpose of this study is to increase understanding of an integrative orientation by testing whether students who are integratively oriented vary in their attitude toward the first language group, as suggested by Lambert. The theoretical expectations associated with dogmatism, a concept developed by Rokeach, provide a possible explanation for attitudinal differences among integratively oriented students. It is, therefore, discussed and, along with Lambert's theory, provides the theoretical framework for specific hypotheses concerning the relationship between integrative orientation, dogmatism and attitude toward the first language group.

Integrative orientation and dogmatism are described in Chapter One. The interrelationship of these concepts, a review of relevant empirical studies and the research hypotheses for this study are also included in this chapter. In the second chapter, the research design and procedures, along with the proposed statistical analysis, are described. The results are presented and discussed in Chapter Three. This is followed by a summary of the study and conclusions.

CHAPTER I

REVIEW OF THE LITERATURE

In this chapter the rationale for the study is presented. Lambert's theory of second language learning is discussed and relevant empirical studies are reviewed in the first two sections. In the next section Rokeach's concept of dogmatism is described. In the last section the specific hypotheses of the study are stated.

1. Lambert's Theory of Second Language Learning

In early studies of second language learning, intelligence and aptitude were considered as the primary factors contributing to success in learning a second language. In Lambert's socio-psychological approach to second language learning the role of attitudes and motivation is emphasized. The importance of these factors was first discussed by Lambert in 1963.¹ His initial conceptualizations were further developed in 1967² and

¹ Wallace E. Lambert, "Psychological Approaches to the Study of Languages, Part II: On Second-Language Learning and Bilingualism", The Modern Language Journal, Vol. 47, No. 3, 1963, p. 114-121.

² Idem, "A Social Psychology of Bilingualism", Journal of Social Issues, Vol. 23, No. 2, 1967, p. 91-109.

1972,³ and more recently Gardner et. al.⁴ have contributed to the evolution of the theory.

Lambert extends Mowrer's idea that a child's motivation to acquire first language facility is based on his desire to be like valued people in his environment and to identify with them.⁵ In second language learning, he reasons that a process similar to identification must underly the long-term motivation needed to acquire facility in the language. Rather than being limited to a few valued people, the identification is directed towards a whole ethnolinguistic community. It is reflected in an inquisitiveness and sincere interest in the other group, to the extent that a person is willing to adopt various aspects of the behavior, including the speech habits, of members of the second language group.⁶

3 Robert C. Gardner and Wallace E. Lambert, Attitudes and Motivation in Second Language Learning, Rowley, Massachusetts, Newbury House, 1972, 316 pages.

4 R.C. Gardner, P.C. Smythe, D.M. Kirby and J.R. Bramwell, Second Language Acquisition: A Social Psychological Approach, Final Report to the Ontario Ministry of Education, Grant-in-aid to Education, Mimeo, 1974, p. 7:1 - 7:23.

5 Lambert, Op. Cit., 1963, p. 115.

6 Ibid., p. 114-115.

A person's success or failure in learning a second language is, therefore, thought to be determined by the degree to which he is willing to identify with the second language group. This in turn is determined by his attitude toward the second language group, his attitude toward foreign groups in general and his orientation.⁷

Orientation refers to the reasons a person has for undertaking the study of a second language. Although it is acknowledged that other orientations could be involved in second language learning, two are specifically identified, integrative orientation and instrumental orientation.⁸ An integratively oriented individual has a sincere interest in the culture and people whose language is being studied and a desire to become more closely associated with the group, to share in its activities and even to become a part of the group. An instrumentally oriented individual has an interest in learning the language solely for practical reasons. An integrative orientation is reflected in such reasons for studying the language as to learn more about the group's way of life, to make friends with members of another cultural group or to be able to think and act like members of that

7 Gardner and Lambert, Op. Cit., 1972, p. 3.

8 Ibid.

group. On the other hand, an instrumental orientation is reflected in such reasons for studying the language as to get a better job or to appear more educated.⁹

Throughout the literature, an integrative orientation is emphasized as an important factor, which, along with a positive attitude toward the second language group and non-ethnocentric and non-authoritarian tendencies, contributes to the motivation needed to succeed in learning a second language.

As used by Lambert, ethnocentrism refers to rigid or stereotyped thinking about in-groups and out-groups.¹⁰ An ethnocentric person tends to view one's own group as superior to any foreign group. Authoritarianism is described as a generalized prejudice toward foreign peoples.¹¹ In the context of Lambert and Gardner's work these predispositions are usually referred to as generalized attitudes. Both are expected to impede learning a second language, whereas a positive attitude toward the second language group, integrative orientation and motivation are seen as facilitating factors.

9 Ibid., p. 148.

10 Lambert, Op. Cit., 1967, p. 106.

11 Gardner and Lambert, Op. Cit., 1972, p. 21.

Gardner et al.¹² currently emphasize the whole attitudinal/motivational complex, referred to as an Integrative Motive. Within this Integrative Motive they include group specific attitudes, course related characteristics such as attitude toward the teacher and the course, motivational indices and generalized attitudes such as ethnocentrism and authoritarianism. Nevertheless, integrative orientation remains an important factor in the complex.

The factors underlying an integrative orientation, however, have not been investigated fully. Lambert argues that for some students the motivation to learn another language may be derived from dissatisfactions experienced with the first language group. For them, learning a second language is a means to being accepted in another ethnolinguistic group. In contrast, others may be simply interested in a friendly and inquisitive way in the second language group. For these individuals, interest in the first language group continues.¹³ Both types of students can be considered integratively oriented, as they both express an interest in the people and culture of the second language group, even

12 Gardner et al., Op. Cit.

13 Lambert, Op. Cit., 1963, p. 114.

to the point of wanting to become a member of the group. They differ, however, in their view of the first language group. In the first instance, rejection is implied, while in the second, an association with both the first and second language groups is evident. Thus, in the first instance attitude toward the first language group would likely be less favorable than in the second instance, where there is no suggestion of dissatisfaction with that group.

This aspect of the theory is not amplified in terms of an antecedent of learning a second language. However, it may also be discussed in terms of an outcome of language learning. It is argued that in either of the above cases, the more proficient one becomes in a second language, the more a person may encounter and need to adjust to conflicting socio-cultural demands from two linguistic groups, the one the person is leaving and the one the person is entering.¹⁴ Depending on how one adjusts to these pressures, one's self-concept, sense of belonging and relations to the two cultural linguistic groups may be affected, resulting in feelings of anomie or "social uncertainty or dissatisfaction".¹⁵

14 Lambert, Op. Cit., 1967, p. 105.

15 Idem, Op. Cit., 1963, p. 114.

The conflict is derived from the tendency of many to think in terms of in-groups and out-groups, or from the need to show allegiance to one group or another.¹⁶

From this it appears that ethnocentrism or authoritarianism could account for the different attitudes toward the first language group that exist before or develop as one becomes proficient in a second language. However, rather than rejecting the second language group, presumably the foreign group, as would usually be expected from an ethnocentric or authoritarian person, it is the first language group that is rejected. This reversal with regard to in-group and out-group seems feasible, however, if identification with the second language group, as implied by an integrative orientation, actually occurs or has the possibility of occurring.

The different attitudes might also be explained in terms of dogmatism, a form of general authoritarianism and intolerance of those who do not hold similar beliefs. As will be discussed in Section 3, there are certain theoretical and measurement advantages with dogmatism as compared to authoritarianism. For this reason, it will be used in this study to test whether integratively oriented students

¹⁶ Idem, Op. Cit., 1967, p. 105-106.

differ in their attitude toward the first language group as a function of a generalized authoritarianism.

Prior to discussing dogmatism, however, some relevant empirical studies that have been undertaken to test Lambert's theory of second language learning are reviewed to ascertain the extent to which Lambert's theory has been supported.

2. Empirical Studies on Lambert's Theory of Second Language Learning

Most of the researchers testing Lambert's theory have used a factor analytic approach to examine the contribution of a multitude of aptitudinal, intelligence, attitudinal and motivational variables. This approach is useful for identifying patterns of variables that account for variance in a particular set of data. However, the analysis is sensitive to the number of variables included in the data set, the number of initial factors retained for rotation and the type of rotation used to extract the final factors. In the studies to test Lambert's theory, the number of variables have varied from study to study, along with the method of factoring. Consequently, comparisons across studies are not always possible.

The scales used to measure many of the attitudinal and motivational variables were constructed specifically for a particular study, adapted from previous studies or

consisted of selected items from standardized tests. The validity and reliability for many of these was not established until 1974 when Laplaine¹⁷ and Gardner et al.¹⁸ investigated these aspects. Thus, the confidence that can be placed in the results of the earlier studies is limited.

Despite these limitations, certain relationships among variables have tended to occur in many of the empirical studies. Those of interest involve the major variables in Lambert's theory, namely, orientation, motivation, attitudes toward the first and second language groups, generalized attitudes toward other groups, particularly ethnocentrism and authoritarianism, and achievement in the second language.

A factor that has been consistently identified is an attitudinal/motivational factor. In studies carried out in North American settings with Anglophone subjects studying French, one or more such factors have tended to emerge with loadings from integrative orientation, a positive attitude

17 Marc Laplaine, An Empirical Study of the Relationship between Achievement in a Second Language, Integrative Orientation and Alienation from the Second Language Reference Group: A Test of Lambert's Theory, unpublished doctoral thesis presented to the School of Graduate Studies, University of Ottawa, 1975, vii-130 p.

18 Gardner et al., Op. Cit., p. 3:1 - 3:55.

toward the second language group, motivation and achievement in the second language.

Gardner and Lambert¹⁹ identified such a factor in a study of high school students in Montreal. However, contrary to theoretical expectations, authoritarianism also loaded positively on the factor. In a subsequent study with similar subjects, Gardner²⁰ found a similar factor with loadings from integrative orientation, motivation and achievement, but in this study a positive attitude toward the second language group did not load on the factor. Lambert et al.²¹ then attempted to replicate these factors with high school students in three settings outside Montreal: Louisiana, Maine and Connecticut. In Louisiana, a factor emerged with loadings

19 Robert C. Gardner and Wallace E. Lambert, "Motivational Variables in Second Language Acquisition", Canadian Journal of Psychology, Vol. 13, No. 4, 1959, p. 266-272; also in Gardner, R.C. and Lambert, W.E., Op. Cit., 1972, p. 191-197.

20 R.C. Gardner, Motivational Variables in Second Language Acquisition, unpublished doctoral thesis presented to the Faculty of Graduate Studies and Research, McGill University, 1960, 71 p.; also abstracted in Gardner, R.C. and Lambert, W.E., Op. Cit., 1972, p. 199-216.

21 W.E. Lambert et al., A Study of the Roles of Attitudes and Motivation in Second-Language Learning, McGill University, 1962, mimeograph; also in Gardner, R.C. and Lambert, W.E., Op. Cit., 1972, p. 19-57.

from integrative orientation and achievement in French, but without positive loadings from attitude toward the second language group and other motivational indices. In Maine integrative orientation and attitude toward the second language group failed to load on the same factor or on factors with loadings from achievement measures. In Connecticut, one factor included loadings from motivational indices, integrative orientation and French achievement, but had loadings from instrumental orientation as well and no loading from attitude toward the second language group.

In a later study with graduate and undergraduate students studying French in a six-week intensive course in Montreal, Lambert, Gardner, Barik and Tunstall²² reported, for students at the beginning level, a factor with loadings from integrative orientation, Francophilia and French achievement. For students at the advanced level, a factor was extracted with loadings from integrative orientation and Francophilia, but loadings from achievement measures were lacking.

22 Wallace E. Lambert, R.C. Gardner, H.C. Barik, and K. Tunstall, "Attitudinal and Cognitive Aspects of Intensive Study of a Second Language", Journal of Abnormal and Social Psychology, Vol. 66, No. 4, 1963, p. 358-368; also in Gardner, R.C. and Lambert, W.E. Op. Cit., 1972, p. 228-245.

Feenstra²³ subsequently undertook to further test Lambert's theory and investigate two additional sets of variables, parents' attitude toward the second language group and student's performance in the first language. In this study, he found a factor which included motivational indices, integrative orientation and achievement in French. Instrumental orientation, however, also loaded on this factor, suggesting that both types of orientation may contribute to success in learning a second language. Smythe, Stennett and Feenstra²⁴ compared this data, obtained from high school students in a first year traditional French course, with data from students at the same school who had had two years of previous French training in an elementary school program in which oral skills were stressed. A similar attitudinal/motivational factor was extracted with loadings from motivational indices, positive attitude toward the second language group and achievement, but integrative orientation did not load on the factor.

23 H.J. Feenstra, Aptitude, Attitude, and Motivation in Second Language Acquisition, unpublished doctoral thesis presented to the Faculty of Psychology, University of Western Ontario, 1968, vii-109 p.

24 Padric C. Smythe, Richard G. Stennett, and Henry J. Feenstra, "Attitude, Aptitude, and Type of Instructional Programme in Second Language Acquisition", Canadian Journal of Behavioral Science, Vol. 4, No. 4, 1972, p. 307-321.

Gardner et al.²⁵ further tested the theory in an extensive study with students from Grades 7 through 11 in London, Ontario. In this study an attitudinal/motivational factor emerged with a relatively consistent pattern across grade levels. A factor was found which included integrative orientation, positive attitude toward people who speak French, motivational indices and favorable attitudes toward the French course and language learning in general. Only at the Grade 8 level did one measure of French achievement load on this factor.

In summary, in most of these studies integrative rather than instrumental orientation has tended to be associated with achievement measures. Although the pattern is not consistent, positive attitude toward the second language group has also tended to load on factors with loadings from achievement measures and integrative orientation. Thus with Anglophone subjects studying French in a North American setting, there appears to be support for Lambert's contention that learning a second language is facilitated by an integrative orientation and a positive attitude toward the second language group.

25 Gardner et al., Op. Cit., p. 4:1 - 4:65.

Correlations reported by Gardner²⁶ from data collected from thirty-three samples involving students from six different grade levels in seven regions across Canada further substantiate a relationship between integrative orientation and achievement and between a positive attitude toward the second language group and achievement. He found that although aptitude measures were correlated with French vocabulary, they had lower correlations with measures of conversational skills. On the other hand both integrative orientation and a positive attitude toward the second language group correlated with conversational skills, but had lower correlations with vocabulary. He concluded that while aptitude may have an important role in those aspects of French achievement that are usually stressed in the classroom, integrative orientation and a positive attitude toward the second language reference group influence particularly the development of those language skills that are associated with interacting and communicating with the second language group.

Studies to test Lambert's theory with subjects from non-Anglophone cultural groups provide further evidence of a relationship between integrative orientation, attitude toward the second language group and achievement. There is also some

26 R.C. Gardner, "Social Factors in Second Language Acquisition and Bilinguality", Research Bulletin No. 342, Department of Psychology, The University of Western Ontario, 1975.

indication that instrumental orientation may be related to achievement in these settings.

In a factor analytic study with Filipino high school students who were studying English as a second language, Gardner and Santos²⁷ reported a factor with loadings from integrative orientation and English achievement. A positive attitude toward the second language group, however, did not load on the factor. On two other factors, instrumental orientation loaded with measures of English achievement. On one of these authoritarianism also loaded. In a study in India with female high school students studying English as a second language, Lukmani²⁸ found correlations between integrative orientation and a positive attitude toward the second language group, but instrumental rather than integrative orientation was correlated with English achievement. However, the fact that one reason for studying English, relating to travel abroad, was classified as integrative rather than instrumental as in previous studies may account for this finding.

27 R.C. Gardner and E.H. Santos, "Motivational Variables in Second-Language Acquisition: A Philippine Investigation", Research Bulletin No. 149, Department of Psychology, University of Western Ontario, 1970; also in Gardner, R.C. and Lambert, W.E., Op. Cit., 1972, p. 121-129.

28 Yasmeen M. Lukmani, "Motivation to Learn and Language Proficiency", Language Learning, Vol. 22, No. 2, 1972, p. 261-273.

In a factor analytic study with Grade 10 and 11 Francophone high school students studying English, Clément et al.²⁹ reported a factor for each grade level with loadings from a positive attitude toward the second language group, motivational indices and both integrative orientation and instrumental orientation. However, in contrast to the factor identified in the Philippine study, measures of English achievement failed to load on these factors, except for two of the self-rating of English skills scales, which loaded at one grade level.

A second factor extracted for each grade level had loadings from measures of English achievement and motivation, but neither integrative nor instrumental orientation loaded on this factor.

In another study with Francophone high school students, Laplaine³⁰ found that high English achievers had lower scores on a measure of alienation from English-speaking Canada than low achievers. In addition, high integratively oriented students had lower scores on alienation than low integratively oriented students.

29 R. Clément, R.C. Gardner and P.C. Smythe, "Motivational variables in Second Language Acquisition: A Study of Francophones Learning English", Canadian Journal of Behavioural Science, Vol. 9, No. 2, 1977, p. 123-133.

30 Laplaine, Op. Cit., 1975

Although findings across studies are not consistent, there is some evidence to support Lambert's contention that integrative orientation and a positive attitude toward the second language group facilitate learning a second language. The findings also indicate, however, that with non-Anglophones in settings outside North America, instrumental orientation, in addition to integrative orientation, may be related to learning a second language.

The importance of the second language in these settings may be responsible for this. In India and the Philippines there are a multitude of local languages and dialects. English serves as a common second language for communication among people from different regions. In such settings, Gardner and Lambert³¹ acknowledge that an instrumental approach to acquiring a second language may have a greater role than in settings where the second language is a minority language.

A second factor that has emerged rather consistently in the factor analytic studies is an ethnocentrism/authoritarianism factor. However, the variables loading on this

31 Gardner and Lambert, Op. Cit., 1972, p. 141.

factor have varied from study to study. As reported in Gardner and Lambert's³² study, authoritarianism loaded on the attitudinal/motivational factor. Since authoritarianism is theoretically considered an impeding factor in learning a second language, this loading was unexpected. In this study, authoritarianism also loaded on another factor with a measure of positive attitude toward the second-language group. This, too, was unexpected since authoritarians were expected to be prejudiced against the second language group.

In Gardner's³³ study authoritarianism and ethnocentrism loaded positively on a separate factor, but the factor had no loadings from instrumental orientation nor attitude toward the first language group. In Lambert et al.'s³⁴ studies in American settings, in Louisiana ethnocentrism and authoritarianism loaded positively on a factor with attitude toward the first language group. Achievement measures, however, also loaded on the factor. In Maine ethnocentrism and authoritarianism also loaded on a factor with positive attitude toward the first-language group. In

32 Gardner and Lambert, Op. Cit., 1959.

33 Gardner, Op. Cit., 1960.

34 Lambert et al., Op. Cit., 1962.

addition, instrumental orientation loaded on the factor. In Connecticut, however, authoritarianism loaded positively on a factor with loadings from achievement measures and integrative orientation. Factors with positive loadings from authoritarianism and attitude toward the second-language group were also reported for both elementary and advanced level students in Lambert et al.'s³⁵ study in Montreal. In the case of the elementary students the factor also had a loading from instrumental orientation, while in the case of the advanced students one achievement measure loaded.

In Feenstra's³⁶ study, an authoritarianism factor was extracted with loadings from a measure of positive attitude toward the first language group and instrumental orientation. Smythe et al.³⁷ found a similar ethnocentrism/authoritarianism factor with loadings from ethnocentrism, authoritarianism and a preference for English over French Canadians.

Factors extracted in Gardner et al.'s³⁸ extensive study included positive loadings from ethnocentrism and

35 Lambert et al., Op. Cit., 1963.

36 Feenstra, Op. Cit.

37 Smythe et al., Op. Cit.

38 Gardner et al., Op. Cit.

authoritarianism for all grade levels. Only at the Grade 11 level did instrumental orientation load on the factor and at all levels, except Grade 7, there were no loadings from measures of positive attitude toward English Canadians. The correlations reported by Gardner³⁹ between various attitudinal/motivational factors and achievement in French from the Canada-wide samples did not support a strong relationship between authoritarianism and French achievement. Although the correlation reported was in a negative direction, as predicted, it was too low to be considered significant.

The pattern of loadings on ethnocentrism/authoritarianism factors extracted in studies with non-Anglophone subjects is also inconsistent. In the Philippines, Gardner and Santos⁴⁰ extracted a factor with positive loadings from ethnocentrism, a preference for the Filipino over the American way of life and integrative orientation and a negative loading from students' self-ratings of skills in languages. On another factor, authoritarianism loaded with instrumental orientation, but oral reading skills in the second language

39 Gardner, Op. Cit., 1975.

40 Gardner and Santos, Op. Cit.

also loaded. Clément et al.⁴¹ in the study with Francophones identified a factor that included positive loadings from instrumental orientation and ethnocentrism and a negative loading from attitude toward the first-language group.

In summary, although an ethnocentrism/authoritarianism factor has been consistently identified, the pattern of loadings from measures of integrative or instrumental orientation, attitude toward the first or second language group and achievement in the second language varies. The results, therefore, provide little support for Lambert's contention that ethnocentrism and authoritarianism are necessarily impeding factors in acquiring a second language. A clear pattern of relationship between either instrumental orientation or attitude toward the first language group and ethnocentrism/authoritarianism was not established. Nor was a relationship between ethnocentrism/authoritarianism and integrative orientation established. It appears possible, therefore, that integratively oriented students may be either authoritarian/ethnocentric or non-authoritarian/non-ethnocentric. Findings reported by Gayle⁴² in a study of non-French-speaking

41 Clément et al., Op. Cit.

42 Grace M.H. Gayle, An Examination of the Interaction between Personality and Cognitive Factors as they Relate to Attitudes towards Second-Language Learning, unpublished doctoral thesis presented to the School of Graduate Studies, University of Ottawa, 1976, vii-102 p.

undergraduates who were studying French as a second language support this possibility. No significant difference in integrative orientation was found between students classified by means of the California F-Scale as authoritarian and those classified as non-authoritarian. In the same study, Gayle also found no significant difference in integrative orientation between students classified by means of Rokeach's D-Scale as dogmatic and those classified as non-dogmatic.

The different attitudes among integratively-oriented students suggested by Lambert might, therefore, be accounted for by dogmatism, a form of general authoritarianism and intolerance of those who do not hold similar beliefs. The concept of dogmatism developed by Rokeach is discussed further in the next section.

3. Rokeach's Concept of Dogmatism

The concept of dogmatism and a scale to measure it, the Dogmatism Scale or D-Scale, were first described by Rokeach in 1954⁴³ and further developed in 1960⁴⁴ in response to the need for a measure of general authoritarianism and

43 Milton Rokeach, "The Nature and Meaning of Dogmatism", Psychological Review, Vol. 61, No. 3, 1954, p. 194-204.

44 Idem, The Open and Closed Mind, New York, Basic Books, 1960, vii-447 p.

intolerance toward others. The California F-Scale, originally developed to measure "Facist authoritarianism" but later used as a more general "authoritarian personality scale", had been criticized as measuring only a specific, right authoritarianism. Thus, those who scored high on the F-Scale also tended to be ethnocentric, anti-Semitic, anti-Negro and politically conservative. According to Rokeach, this was traceable to the purposes for which the scale was developed.⁴⁵ Instead of considering acceptance and rejection of ideas, of people and of authority as separate entities, Rokeach contends they are but different facets of one's total belief-disbelief system,⁴⁶ which encompasses all the verbal and non-verbal, implicit and explicit beliefs, sets or expectancies one has about reality.⁴⁷ Moreover, the structural arrangement of beliefs within the system, rather than their specific content, determines the extent to which a person is authoritarian, intolerant of others and closed in his mode of thought and belief.⁴⁸

45 Ibid., p. 11-15.

46 Ibid., p. 8.

47 Ibid., p. 32.

48 Ibid., p. 14-15.

The structure of one's belief-disbelief system is viewed by Rokeach as varying along a continuum from open to closed, with respect to three dimensions: a belief-disbelief dimension, a central-peripheral dimension and a time-perspective dimension.⁴⁹ The belief-disbelief system is viewed as consisting of a subsystem of beliefs, expectancies and sets that are accepted as true and subsystems of disbeliefs, that is, beliefs that to a greater or lesser extent are rejected as false. In the closed system, the belief subsystem is well differentiated, but relatively little is known about the various disbelief subsystems. Consequently few distinctions are made between the different disbelief subsystems. The magnitude of rejection of disbelief subsystems is also relatively high for each subsystem. There is, therefore, a tendency to interpret reality in terms of extreme opposites. The closed system is also characterized by isolation between and within the belief and disbelief subsystems, resulting in little intercommunication between the various components. For this reason, logically contradictory beliefs can exist side by side.

In contrast, in the open system there is little discrepancy in what is known about the belief subsystem and the various disbelief subsystems. Consequently, the disbelief subsystems represent a continuum, with each subsystem

49 Ibid., p. 31-70.

more dissimilar than the preceding in relation to the belief subsystem. The open system is also characterized by a lack of isolation between and within the belief and disbelief subsystems. There is communication between the various components such that only logically consistent beliefs are found within the belief-disbelief system.

In terms of the central-peripheral dimension, distinctions between openness and closedness are made with respect to central or basic, intermediate and peripheral beliefs. Central beliefs refer to ideas about the nature of the world, the self and the generalized other, which can be either negative or positive. Intermediate beliefs concern the nature of authority, which is defined as any source to whom one looks for information about the universe or to check information one already has about the world. Peripheral beliefs refer to specific facts and events.

The closed system is characterized by central beliefs that the world is an unfriendly, lonely, isolated and uncertain place in which to live, and the self is inadequate and unworthy. To overcome these feelings, there is a tendency toward identifying with a cause and a concern with power and status.⁵⁰ In contrast, in the open system a view of the world as a friendly place to live predominates.

50 Ibid., p. 75.

In terms of intermediate beliefs, the closed mind is characterized by an arbitrary, absolute reliance on authority.⁵¹ This leads to acceptance and rejection of ideas and people on the basis of the authorities to whom they adhere. Parallel to the degree of differentiation in the belief-disbelief subsystems is the degree of differentiation between positive and negative authorities and likewise, in-groups and out-groups. Consequently, much is known about the in-group, but few distinctions are made among the several out-groups. The opposite is true in the open system, where reliance on authority is rational. People are organized in terms of an in-group and a continuum of out-groups arranged according to the degree of similarity with the in-group. People are also judged independent of the authority figures to whom they adhere and tend to be positively valued regardless of their beliefs.

Beliefs in the central or intermediate regions influence the acceptance or rejection of peripheral beliefs, particularly in the closed system.⁵² In such systems, peripheral beliefs which are incompatible with central beliefs are rejected or narrowed out. Those which are incongruous with intermediate beliefs are either completely avoided,

51 Ibid., p. 31-70.

52 Ibid.

altered to make them more compatible to the intermediate beliefs, or held in isolation from other peripheral beliefs. The latter occurs when a person changes a peripheral belief as a result of some instruction from the authority figure. This is referred to by Rokeach as a party-line change and results in little or no change in adjacent beliefs in the peripheral region. In contrast, in the open system new information is received intact and in the process of reconciling it with other beliefs, adjustments or alterations are made in any contradictory peripheral and intermediate beliefs, resulting in a change in the entire system.

Within the time-perspective dimension, open and closed-minded people are differentiated in terms of ideas about the past, present and future.⁵³ The person with a relatively closed system tends to emphasize the past and future and reject the present, while the person with a relatively open system is characterized by a balanced view of the three perspectives and an appreciation of the connections among them.

In summary, the closed-minded or dogmatic person tends to have a negative view of the world and the adequacy of the self to cope. Consistent with these feelings is a preference for the past or future. Since the past and future are distant in time they are less threatening than the present.

53 Ibid.

An absolute and arbitrary reliance on authority, along with little differentiation among disbelief subsystems, leads to all-out acceptance or rejection of new information and people, according to the authority figures to whom they adhere. The open-minded or non-dogmatic person, in contrast, has a positive view of the world and the self. This is reflected in a balanced perspective in terms of time and a tendency to evaluate others positively, regardless of their beliefs. Reliance on authority is rational. Consequently, new information and people are evaluated independent of the authority to whom they adhere. Rather, they are judged in relation to the other information already accumulated about the world.

Since its introduction in 1960, the concept of dogmatism has been tested extensively. Vacchiano *et al.*⁵⁴ review numerous studies relating dogmatism to diverse personality traits, parent-child relationships and interpersonal and group behavior. They conclude that a logical pattern is formed which serves to substantiate and extend Rokeach's original formulations.⁵⁵

54 Ralph B. Vacchiano, Paul S. Strauss and Leonard Hochman, "The Open and Closed Mind: A Review of Dogmatism", Psychological Bulletin, Vol. 71, No. 4, 1969, p. 261-273.

55 Ibid., p. 269.

Of particular interest are the studies in which dogmatism and group identity are investigated. Gladstone and Gupta⁵⁶ failed to find differences between high and low dogmatics in terms of rejection of other nationalities. Similarly, Genskow and Maglione⁵⁷ found no differences in terms of rejection of the physically disabled. In both studies, however, it was assumed that all dogmatics would reject the same out-group, whereas according to Rokeach's conceptualizations out-groups are perceived by dogmatics as a function of their own belief system. For example, a dogmatic American Catholic could view all Protestants regardless of nationality as forming part of the out-group, while Catholics of any nationality may be perceived as members of the in-group.

In studying political party-switching, Zippel and Norman⁵⁸ found that affiliative needs satisfied through party membership were not as important for high dogmatics as

56 Roy Gladstone and G.C. Gupta, "Dogmatism and the Gulf Hypothesis", Journal of Social Psychology, No. 64, 1964, p. 21-26.

57 Jack K. Genskow and Frank D. Maglione, "Familiarity, Dogmatism and Reported Student Attitudes toward the Disabled", Journal of Social Psychology, No. 67, 1965, p. 329-341.

58 Bert Zippel and Ralph D. Norman, "Party Switching, Authoritarianism and Dogmatism in the 1964 Election", Psychological Reports, No. 19, 1966, p. 667-670.

ideological rules and principles. Di Renzo⁵⁹ corroborated this finding in a study of the 1964 U.S. presidential election. He found that dogmatism and party preference were related, but preference for a specific candidate, which it was theorized reflected ideological commitment in addition to party labels, was more strongly related to dogmatism. He also found that cross-over, that is, indicating a preference for the candidate from the opposition party over the candidate of one's own party occurred more frequently with high dogmatics than low dogmatics. This he concluded was consistent with the dogmatism variable since the closed-minded person, being intolerant of opinions and beliefs which are not compatible with his own ideology, could be motivated to seek a more cognitively consonant situation when the opportunity arises. In contrast, non-dogmatics are more open-minded and more tolerant of the beliefs of others, even the opposing views of a presidential candidate from an opposition party.

Vacchiano et al.⁶⁰ also cite studies providing support for the Dogmatism Scale as a measure of general authoritarianism and intolerance toward those who disagree with one's own

59 Gordon J. Di Renzo, "Dogmatism and Presidential Preferences in the 1964 Elections", Psychological Reports, No. 22, 1968, pp. 1197-1202.

60 Vacchiano et al., Op. Cit., p. 261-262.

beliefs. These indicate that the scale does identify authoritarians from both the political left and the right, whereas the F-Scale developed by Adorno et al. tends to identify only authoritarians who are conservative in their politics.

Given the theoretical distinctions between an open and closed mind and the results of empirical studies, one could expect that the more closed a person's belief system (the more dogmatic he is) the more difficult it would be for him to maintain an association with two different groups at the same time. By extension this would apply to cultural, linguistic groups as well, particularly if they are perceived as representing different principles or beliefs. Rather, the more dogmatic the person, the more he would tend to accept one group and reject the other, which would likely also be reflected in his attitude toward the groups. Thus, dogmatism may provide a basis for differentiating between the two types of integratively oriented students suggested by Lambert.

4. Research Hypotheses

As discussed in the first section of this chapter, Lambert suggests that different bases may underly an integrative orientation. Some persons may be motivated to learn a second language in order to become a member of the second

language reference group, due to dissatisfactions experienced with the first language group, while others are as interested in the first as in the second language group. Thus, on the one hand, an association with the group whose language is being studied and rejection of the first language group is implied, while on the other, an association with both groups is implied.

These differences appear consonant with what could be expected of dogmatic and non-dogmatic persons, respectively. The dogmatic, if dissatisfied with the first language group, may seek to become a member of a new language group, which ideologically is more consonant with his beliefs; the non-dogmatic, generally more tolerant of dissonance, is able to maintain an association with the first language group, while being interested in a closer association with the second language group. Moreover, dogmatics tend to view people in terms of in-groups and out-groups, whereas non-dogmatics regard others positively regardless of their particular group affiliation. For these reasons, non-dogmatics could have a favorable attitude toward both groups, while dogmatics would likely favor one group to the exclusion of the other.

It therefore seems justified to expect that an integratively oriented person who is also dogmatic would tend to evaluate the first language group less favorably than an integratively oriented person who is non-dogmatic. On

the other hand, non-integratively oriented individuals who are dogmatic could be expected to retain a positive attitude toward the first language group. Since they show little interest in a closer association with the second language group, presumably they are relatively satisfied with membership in the first language group. Non-integratively oriented non-dogmatics would be expected to have a favorable outlook toward both groups, as was the case with integratively oriented non-dogmatics. Thus, integratively oriented dogmatics would be expected to have a more negative view of the first language group than non-integratively oriented dogmatics and integratively and non-integratively oriented non-dogmatics.

It is more difficult to predict whether non-integratively oriented dogmatics and integratively and non-integratively oriented non-dogmatics would vary in the degree of positiveness of their attitude toward the first language group. However, dogmatics presumably would reflect their extreme personality disposition in their beliefs and attitudes whereas non-dogmatics are depicted as having a relatively balanced view of the world. One might, therefore, expect non-integratively oriented dogmatics to be more positive in their view of the first language group than non-dogmatics, whether integratively oriented or not. If this holds, one would then expect integratively oriented dogmatics to have

the least favorable attitude toward the first language group, both integratively and non-integratively oriented non-dogmatics to have a moderately favorable attitude toward the group and non-integratively oriented dogmatics to have the most favorable attitude toward the group.

From this, it follows that there would be no main effects difference between dogmatics and non-dogmatics in their attitude toward the first language group. Among dogmatics, the extreme negative and positive attitude toward the group, expected from integratively and non-integratively oriented persons, respectively, would tend to cancel one another, yielding an overall moderate effect which would be similar to the effect expected from both integratively and non-integratively oriented non-dogmatics. A main effects difference would be expected, however, between integratively and non-integratively oriented students, due to the difference in outlook toward the first language group expected from integratively and non-integratively-oriented dogmatics. Since integratively oriented dogmatics are expected to have a less favorable outlook, the overall effect would be similar, with integratively oriented students evaluating the first language group less positively than non-integratively oriented persons.

Based on these considerations the following research hypotheses are suggested:

1. There is interaction between integrative orientation and dogmatism in relation to attitude toward the first language group. Integratively oriented dogmatics are expected to evaluate the group less favorably than integratively and non-integratively oriented non-dogmatics, who in turn are expected to evaluate the group less favorably than non-integratively oriented dogmatics.
2. Integratively oriented individuals evaluate the first language group less favorably than non-integratively oriented individuals.

No difference is expected between dogmatics and non-dogmatics in their evaluation of the first language group.

In this chapter Lambert's theory of second language learning was discussed, followed by a review of empirical studies in which his theory was tested. Subsequently, Rokeach's concept of dogmatism was discussed. From this theoretical framework specific research hypotheses were developed relating integrative orientation and dogmatism to attitude toward the first language group. In the next chapter, the instruments and the research design to test the hypotheses are presented.

CHAPTER II

EXPERIMENTAL DESIGN

In this chapter the procedures followed for the collection and analysis of data are presented. In the first section the research subjects are described. This is followed by a description of the instruments and the procedures used in collecting the data. In the next section subjects' scores on the various instruments are described, along with the procedures for assigning subjects to levels on the independent variables. In the final section the statistical techniques adopted for the analysis of the data are presented.

1. Subjects

The subjects for the study were English-speaking Canadians attending a six-week summer institute in French offered at a Francophone university in Eastern Canada. This intensive course, in which the use of French is stressed in both the classroom and in social situations outside classes, is open to persons sixteen years of age and over. The results of exams given at the beginning of the session are used to assign students to Level I (Beginning), II (Intermediate), or III (Advanced) classes. The summer session is attended by both Canadian and other foreign nationals, primarily Americans. For the purposes of the study, English Canadians were defined

as Canadian citizens presently residing in Canada, who have resided in Canada for ten years and who use only English as a language at home.

The number of subjects for whom data were analyzed totaled 292 English-speaking Canadians. Both males and females enrolled in levels I, II, and III French classes were included. Ages of subjects ranged from 17 to 60 with 77% between the ages of 18 and 24. As indicated in Table I, the majority were females and most resided in Ontario (32.6%) or British Columbia (21.3%), but subjects included persons from all provinces except Prince Edward Island. Most subjects were Level II students (59.9%), with 11.3% in Level I and 28.8% in Level III.

2. Instruments

The three instruments used to collect data were the Ratings of Integrative Orientation Scale, the Dogmatism Scale and an attitudinal scale referred to as the Evaluation of English-Canadians Scale. A description of each is presented below. The complete questionnaire with all instruments is presented in Appendix 1.

a) Ratings of Integrative Orientation Scale.

Integrative orientation was measured by a scale consisting of eight statements that were judged to be integrative (people-oriented) reasons for studying French. Subjects are asked

TABLE I

Distribution of Males and Females by
Province (Territory) of Residence

Province	Males	Females	Total
Newfoundland	3 33.3%	6 66.7%	9 3.1%
New Brunswick	8 40.0%	12 60.0%	20 6.9%
Prince Edward Island	0 0.0%	0 0.0%	0 0.0%
Nova Scotia	6 24.0%	19 76.0%	25 8.6%
Quebec	13 44.8%	16 55.2%	29 10.0%
Ontario	40 42.1%	55 57.9%	95 32.6%
Manitoba	3 27.3%	8 72.7%	11 3.8%
Saskatchewan	4 25.0%	12 75.0%	16 5.5%
Alberta	4 17.4%	19 82.6%	23 7.9%
British Columbia	16 25.8%	46 74.2%	62 21.3%
Yukon Territory	1 100.0%	0 0.0%	1 0.3%
Northwest Territories	0 0.0%	0 0.0%	0 0.0%
Total	98 33.7%	193 66.3%	291* 100.0%

* For one subject data on residence was missing.

to indicate on a seven-point Likert-type scale below each statement the extent to which the statement reflects their reasons for studying French. Alternatives range from "Strongly disagree" (-3) to "Strongly agree" (+3). A constant of four is added to scores on each item so that scores may vary from eight to fifty-six.

The version of the Ratings of Integrative Orientation Scale used in this study was first administered by Gardner et al.⁶¹ to students at five grade levels in London, Ontario. It consists of four items previously used by Gardner and Lambert⁶² in the American studies and four new items developed for the London study. The eight items were presented in random order with seven items from the Ratings of Instrumental Orientation Scale, since the two scales are usually presented together in one questionnaire.

Gardner et al.⁶³ and Gayle⁶⁴ computed item-total correlations for the scale, with adjustments to partially eliminate the effect of the contribution of each item to the total score.

61 Gardner et al., Op. Cit., p. 3:1 - 3:55.

62 Gardner and Lambert, Op. Cit., 1972.

63 Gardner et al., Op. Cit., p. B-6.

64 Gayle, Op. Cit., 1976, p. 42.

The adjustments consisted of subtracting the item score from the total score prior to computing the correlation between each item and the total score. For the eight items, reported item-total correlations range from .34 to .85.

Gardner et al.^{64a} subsequently selected four items that exhibited high item-total correlations consistently across all five grade levels. Item-total correlations for this version of the scale ranged from .51 to .81.^{64b} Gayle^{64c} found little difference in item-total correlations between this version and the eight-item version. In the four-item version, however, only one of the four items used in the earlier American studies was retained. The eight item scale was, therefore, considered more appropriate for use in this study.

Evidence for the construct validity of the scale is reported by Gardner et al.⁶⁵ In the study carried out in

64a Gardner et al., Op. Cit., p. 3:17 - 3:19.

64b Ibid., p. B-6.

64c Grace M.H. Gayle, personal communication.

65 Gardner et al., Op. Cit., p. 4:51.

London, Ontario with this version of the scale, factors were extracted that were similar to the attitudinal/motivational factors reported in earlier studies in which other versions of the scale were used. At five grade levels, the factors had positive loadings from integrative orientation and attitude toward French Canadians.

Alpha reliability coefficients ranging from .79 to .89 are reported by Gardner et al.⁶⁶ and Gayle⁶⁷ for the scale. Evidence of the stability of this version of the Ratings of Integrative Orientation Scale is not presented by the authors, but test-retest coefficients of reliability ranging from .53 to .83 are reported for the shorter four-item version of the scale.⁶⁸ Although evidence for the validity of the scale is limited, reliability estimates are considered acceptable.

66 Ibid., p. 3:44.

67 Gayle, Op. Cit., 1976, p. 42.

68 Gardner et al., Op. Cit., p. 4:51.

b) Dogmatism Scale.

This scale was developed by Rokeach⁶⁹ to measure general authoritarianism and general intolerance toward others regardless of their ideology or the content of their beliefs. The final form of the scale (Form E) consists of forty items, each of which is scored on a six-point Likert scale with alternatives ranging from "I agree very much" (+3) to "I disagree very much" (-3). A constant of four is added to scores on each item. The total score equals the sum of scores obtained on all items. Possible scores range from a minimum of 40 to a maximum of 280. Before administration of the scale in this study, item 23 was modified to replace the word "United States" with "Canada". The forty items were presented in random order with five items from Form D, an earlier version of the scale, to serve as distractors. The instructions for completing the scale were the same as those used by Rokeach.

Since its introduction in 1960 the scale has been widely used, and there is extensive support for its validity. As an index of criterion-related validity Rokeach⁷⁰ reports a significant difference of 56.1 ($p < .01$) on the Dogmatism Scale between two groups of ten subjects judged by their

69 Rokeach, Op. Cit., 1960, p. 72-80.

70 Rokeach, Op. Cit., 1960, p. 101-108.

peers to be very open or closed minded (non-dogmatic or dogmatic). Vacchiano⁷¹ reports several studies in which comparisons between the F-Scale and D-Scale demonstrate that the D-Scale involves general authoritarianism whereas the F-Scale measures only right authoritarianism. In addition, several other investigations reviewed by Vacchiano,⁷² in which high and low dogmatics are compared in terms of their reaction to authority, support Rokeach's contention that the more dogmatic or closed a person's belief system is, the more difficulty he has in differentiating between information received and the authority source of the information.

In a factor analysis of scale items, Kerlinger and Rokeach⁷³ found a common core of authoritarianism underlying both the F-Scale and D-Scale. Second-order factors, however, showed that the scales were factorially discriminable, with the Dogmatism Scale representing general authoritarianism independent of any particular ideological content. Although there was little agreement between the D-factors that emerged and Rokeach's conceptualizations, Vacchiano, Schiffman and

71 Vacchiano et al., Op. Cit., p. 261-262.

72 Ibid.

73 F. Kerlinger and M. Rokeach, "The Factorial Nature of the F and D Scales", Journal of Personality and Social Psychology, No. 4, 1966, p. 391-399.

Strauss, reported by Vacchiano,⁷⁴ found in a factor analysis of the D-Scale items that factors did tend to group themselves as Rokeach had intended.

There is ample evidence that the Dogmatism Scale measures a general authoritarianism whereas the F-Scale tends to measure right authoritarianism. Nevertheless, Rokeach⁷⁵ himself found in a statistical comparison of the D-Scale and two measures of liberalism-conservatism that although correlations between dogmatism and conservatism were quite negligible, they were nevertheless consistently positive, suggesting that it was more likely that a closed-minded person would be conservative rather than liberal in his politics.

Since all items of the D-Scale are positively worded, the question of response set has also been raised. In several studies reported by Vacchiano⁷⁶ significant relationships were found between dogmatism and response set. In spite of this criticism, Vacchiano concluded that the evidence for substantive differences between high and low dogmatics indicated that more than a response bias was operative and, therefore, the D-Scale was a generally valid instrument.

74 Vacchiano et al., Op. Cit., p. 262.

75 Rokeach, Op. Cit., 1960, p. 121-122.

76 Vacchiano et al., Op. Cit., p. 262-263.

Odd-even reliability coefficients, corrected by the Spearman-Brown formula, are reported by Rokeach⁷⁷ for various British and American samples. They range from .68 to .93. In summary, the D-Scale has been used considerably. Although it has some limitations, it is generally accepted as a reliable and valid measure of general authoritarianism.

c) Evaluation of English Canadians Scale.

Attitude toward English Canadians was determined using semantic differential scales developed by Gardner et al.⁷⁸ to measure evaluative reactions to the concept of English Canadians. The questionnaire includes thirty semantic differential scales consisting of trait descriptive adjectives and their opposites. Subjects are asked to indicate on a seven-point scale the degree to which each adjective or its opposite describes English Canadians. Thirteen of the scales are considered evaluative. A total score is derived by summing the ratings on these. A high score on the instrument, for which the minimum is thirteen and the maximum, ninety one, indicates a positive evaluation of English Canadians.

77 Rokeach, Op. Cit., 1960, p. 90.

78 Gardner et al., Op. Cit., 1974, p. C-17.

The Evaluation of English Canadians Scale is usually presented with similar questionnaires using the same semantic differential scales to evaluate other concepts. In this study, it was presented with similar instruments to evaluate French Canadians and European French People. On each instrument the thirteen evaluative semantic differential scales were ordered randomly with seventeen scales not considered to be evaluative.

The adjectives used in the thirteen scales considered to be evaluative were selected from words for which norms were developed by Kirby and Gardner⁷⁹ on the basis of ratings by 225 university students of 208 words commonly used in ethnic stereotype assessment. Students were asked to rate each word on a seven-point scale for one of the following characteristics: behavioural specificity, familiarity, imagery, evaluation, social desirability, activity or potency. For each characteristic, twenty-five to thirty-seven students rated the words. Trait descriptive adjectives with scores above the 80th percentile on evaluation and their opposites with scores from below the 20th percentile were selected for use in the evaluative semantic differential scales in the Evaluation of English Canadians Scale.

⁷⁹ D.M. Kirby and R.C. Gardner, "Ethnic Stereotypes: Norms on 208 Words Typically Used in their Assessment", Canadian Journal of Psychology, Vol. 26, No. 2, 1972, p. 140-154.

The use of semantic differential scales for stereotype or attitude assessment is a generally accepted technique. The words chosen for inclusion as evaluative items in the Evaluation of English Canadians Scale are based on Canadian norms. Thus, there is evidence of the content validity of the scale. The authors, however, fail to present evidence for the reliability of the scale.

3. Procedures for Data Collection

Data were collected by means of a questionnaire (see Appendix 1) in which each instrument appeared in a separate section. In the first section, the Ratings of Integrative Orientation Scale was presented and in the second, the Dogmatism Scale. In the third section, the Evaluation of English Canadians Scales was presented, preceded by the Evaluation of French Canadians Scale and followed by the Evaluation of European French People Scale.

On the cover page (see Appendix 1), the purpose of the questionnaire was explained as part of a study on the attitudinal factors influencing learning a second language, and a brief description was given of the various components and the organization of the questionnaire. On the bottom half of the page, students were asked to provide background data including age, sex, level of French class, number of years of previous training in French, language spoken at home, other

languages spoken and understood, city and province of residence, citizenship, number of years of residence in Canada and reasons for enrolling in the language institute.

Arrangements were made for the questionnaires to be administered during the third week of classes. This time was chosen to avoid any overlap with the battery of exams given to students during the first two weeks for class placement purposes. Questionnaires were administered to students by their usual classroom instructor during regular class time on a specified day. Instructors were asked to allow twenty minutes at the end of the regular class for students to complete the questionnaire. Although twenty minutes was considered adequate time to complete the questionnaire, the actual time allowed by instructors may have varied. Of the approximately 670 students enrolled in the institute, 562 completed questionnaires. Student absences on the day the questionnaire was administered and the failure of some instructors to administer questionnaires accounted for the students missed.

Of the 562 students who completed questionnaires, 353 met the criteria for being considered English Canadians. Only questionnaires with a minimum of ninety percent response on each of the three scales were retained for analysis. Any unanswered items on these were assigned a value of zero, to which a constant of four was added. For each scale this corresponded to a neutral or middle-of-the-scale response.

Twenty-seven persons failed to complete 90% of the Ratings of Integrative Orientation or Dogmatism Scales. In most cases this was due to missing a complete page in the questionnaire. A further thirty-three failed to complete the Evaluation of English Canadians Scale. This appeared to be due primarily to a lack of time since no portion of the section containing this scale was completed. In some cases, however, comments written on the questionnaire indicated students were unwilling to complete the scale. One subject with an extremely low score on the Ratings of Integrative Orientation Scale was also excluded. Data from 292 subjects were therefore retained for analysis.

4. Description of Scores on Scales and Assignment of Subjects to Levels on the Independent Variables

For the 292 subjects retained, the lowest score on the Ratings of Integrative Orientation Scale was 26 and the highest was the maximum of 56. The mean and standard deviation were 44.8 and 5.7, respectively. Since a mean of 32 corresponds to the mid-point on the scale, the observed mean was toward the high integrative orientation end of the scale. The alpha reliability coefficient computed for the scale was .66, slightly lower than those reported by Gardner et al.⁸⁰ and Gayle.⁸¹

80 Gardner, et al., Op. Cit., p. 3:44.

81 Gayle, Op. Cit., p. 42

Scores on the Dogmatism Scale ranged from 41 to 199. The mean was 133.6 while the standard deviation was 25.8, indicating a wide spread of scores. Nevertheless, the standard deviation was within the range for this measure (22.1 to 28.2) reported by Rokeach⁸² for several British and American samples. The mean, however, was below the range (141.33 to 183.2) reported. Subjects in this study were, therefore, less dogmatic than those in Rokeach's samples.

On the Evaluation of English Canadians Scale, the lowest score was 38 and the highest, 91. The mean was 64.5 and the standard deviation, 11.1. The distribution of scores was somewhat platykurtic^{82a} (-0.80).

In view of the limited evidence on the scale's validity as a measure of attitude toward English Canadians, a factor analysis of the thirty semantic differential scales included in the instrument was carried out with data from the 292 subjects for whom questionnaires were retained.

82 Rokeach, Op. Cit., 1960, p. 90.

82a The index of kurtosis was calculated using the formula in Norman H. Nie et al., Statistical Package for the Social Sciences, 2nd Ed., New York, McGraw-Hill, 1970, p. 184.

Principal factoring with iteration⁸³ was used to extract five initial factors with eigenvalues greater than 1.0. After applying the "scree procedure"^{83a} for determining non-trivial factors, the first two factors were retained for rotation by means of the direct oblimin solution. The resulting factor matrix is presented in Table II.

The correlation between the two factors was 0.37. The thirteen scales considered to be evaluative by Gardner et al. all loaded on the first factor with values of .70 or greater. Two additional scales (intelligent-stupid and likeable-unlikeable) had similar loadings, but the remaining scales had lower loadings. The thirteen scales identified as evaluative were, therefore, accepted as measuring the same underlying attribute. The alpha reliability coefficient for the thirteen scales, computed to be .88, was also considered acceptable.

Consistent with the research hypotheses, groups were identified who represented extreme scorers on the two independent variables. Subjects were classified as high or low if

83 Norman H. Nie et al., Statistical Package for the Social Sciences, 2nd Ed., New York, McGraw-Hill, 1970, p. 480.

83a R.B. Cattell, "The Scree Test for the Number of Factors", Multivariate Behavioural Research, 1966, No. 1, p. 245-276.

TABLE II

Rotated Factor Matrix for the Semantic Differential
Scales Included in the Evaluation of English Canadians
Scale

Scales	Factor I	Factor II
*considerate-inconsiderate	0.72196	0.30094
*dependable-undependable	0.74942	0.11770
*sincere-insincere	0.74051	0.36824
*reliable-unreliable	0.77743	0.18844
*honest-dishonest	0.75497	0.28642
*pleasant-unpleasant	0.78156	0.35644
*trustworthy-untrustworthy	0.79064	0.23410
*good-bad	0.74731	0.32110
*polite-impolite	0.71346	0.23777
*cheerful-cheerless	0.75883	0.49659
*friendly-unfriendly	0.74584	0.41962
*loyal-disloyal	0.70337	0.35021
*kind-cruel	0.76121	0.29321
patient-impatient	0.44635	-0.00358
colour-colourless	0.42142	0.68896
intelligent-stupid	0.73426	0.28968
proud-humble	0.42628	0.41850
ambitious-unambitious	0.61186	0.21795
sensitive-insensitive	0.57817	0.62811
excitable-calm	-0.00798	0.61019
religious-non-religious	0.21949	0.42342
modern-primitive	0.64950	0.19284
emotional-unemotional	0.39544	0.78013
leader-follower	0.41270	0.26848
athletic-unathletic	0.52598	0.28048
likeable-unlikeable	0.73999	0.47027
industrious-lazy	0.65623	0.20885
active-passive	0.51831	0.46257
talkative-quiet	0.33552	0.63873
artistic-inartistic	0.53980	0.50332

* Scales identified by Gardner et al. as evaluative

n = 292

they were among either the highest or lowest 37% of the distribution on integrative orientation and the highest or lowest 40% of the distribution on dogmatism. These cut-off points were chosen to maximize the number of subjects in each classification and at the same time avoid inclusion of subjects scoring in the middle of the distribution for each attribute. The number of subjects classified as high and low on the independent variables, along with the corresponding mean, standard deviation and range of scores on integrative orientation and dogmatism, is presented in Table III.

The mean for subjects classified as high on integrative orientation was 50.4, while the mean for those classified as low was 38.8. As indicated earlier, a mean score of 32.0 corresponds to the mid-point of the Ratings of Integrative Orientation Scale, or to the neutral point after the constant is added. Thus, those classified as high scored adequately high on the scale to be considered extremely integratively oriented. However, the mean for those classified as low on integrative orientation was on the high or integrative orientation end of the scale, rather than on the low or non-integrative orientation end. Subjects classified as low were not, therefore, extremely non-integratively oriented.

The mean score on dogmatism for subjects classified as low was 109.5 and for those classified as high, 157.5. Since a mean of 160.0 corresponds to the mid-point on the D-Scale,

TABLE III

Number of Subjects Assigned to High and Low Levels on Each Independent Variable and the Corresponding Mean, Standard Deviation and Range of Scores on Each Variable

	Mean	S.D.	Range	n
Integrative Orientation				
High	50.4	2.1	48-56	108
Low	38.8	3.8	26-43	107
Dogmatism				
High	157.5	13.5	141-199	117
Low	109.5	17.5	41-129	118

or to the neutral point after adding the constant, subjects classified as high dogmatics scored near the mid-point, rather than the high or dogmatic end of the scale. The mean score for this group was also within the range of means reported by Rokeach⁸⁴ for entire distributions obtained with British and American samples. It is, therefore, evident that those classified as high dogmatics were not extremely dogmatic. Those assigned to the low level on this variable, however, scored sufficiently low on the D-Scale to be considered relatively non-dogmatic.

Data were retained for analysis for subjects who were assigned to high or low levels on both independent variables simultaneously. Thus, four groups of subjects were identified and classified as: 1) high on integrative orientation and high on dogmatism; 2) low on integrative orientation and high on dogmatism; 3) high on integrative orientation and low on dogmatism and 4) low on integrative orientation and low on dogmatism. The number of subjects assigned to each group is presented in Table IV.

The number of subjects in each group varied. Most subjects (55) were low on both integrative orientation and dogmatism; a slightly smaller number were high on both variables.

84 Rokeach, Op. Cit., 1960, p. 90.

TABLE IV

Number of Subjects Assigned to
the Four Groups Representing High and
Low Levels on Both Independent Variables

	High Integrative Orientation	Low Integrative Orientation	Total
High Dogmatism	48	32	80
Low Dogmatism	35	55	90
Total	83	87	170

Somewhat fewer subjects (35) were high on integrative orientation and low on dogmatism. A similar number (32) were low on integrative orientation and high on dogmatism.

5. Statistical Techniques Used in the Analysis of the Data

Data were analysed using a least squares 'two-way' analysis of variance for cells with an unequal number of cases.⁸⁵ The research hypotheses were tested in the null form at the .05 level of significance.

The purpose of this chapter was to present the research design for the study in sufficient detail to allow replication in other locations. This was done through a description of the subjects, instruments and procedures for collecting and analysing the data. In the next chapter the results are presented and discussed.

⁸⁵ Jeremy D. Finn, Multivariate...A Fortran Program, Toronto, Ontario, Ontario Institute for Studies in Education, Version 4, 1968, ii - 109 p.

CHAPTER III

PRESENTATION AND DISCUSSION OF RESULTS

In this chapter, descriptive data on attitude toward English Canadians are first presented for the four groups of subjects representing high and low levels on both independent variables. The results of the two-way analysis of variance for this data are then presented. In the last section the results are discussed in relation to the research hypotheses.

1. Presentation of Descriptive Data and Results of the Two-Way Analysis of Variance

The means and standard deviations on attitude toward English Canadians for the four groups involved in the two-way analysis of variance are presented in Table V.

A mean of 52.0 corresponds to the mid-point on the Evaluation of English Canadians Scale or to the neutral point after the constant is added. Thus, all four groups had a relatively positive attitude toward English Canadians. As was postulated, high integratively oriented high dogmatics were less favorable in their attitude toward English Canadians than high integratively oriented low dogmatics. However, both groups were more positive in their attitude toward English Canadians than the low integratively oriented groups. It was

TABLE V

Means and Standard Deviations on Attitude
toward English Canadians for the Four Groups
Representing High and Low Levels on Both
Independent Variables

	High Integrative Orientation	Low Integrative Orientation	Total
High Dogmatism	66.0 s.d. = 11.7 n = 48	61.8 s.d. = 11.0 n = 32	64.3 s.d. = 11.4 n = 80
Low Dogmatism	68.0 s.d. = 12.5 n = 35	62.0 s.d. = 9.3 n = 55	64.3 s.d. = 10.5 n = 90
Total	66.8 s.d. = 12.0 n = 83	61.9 s.d. = 9.9 n = 87	64.3 s.d. = 10.9 n = 170

expected that high integratively oriented high dogmatics would be the least positive of all in attitude toward English Canadians, while low integratively oriented high dogmatics would be the most positive. Low integratively oriented low dogmatics were expected to be moderately favorable in attitude toward English Canadians, but were not expected to vary substantially in attitude from high integratively oriented low dogmatics.

The results of the two-way analysis of variance with integrative orientation and dogmatism as independent variables and attitude toward English Canadians as the criterion are presented in Table VI.

Examination of this table shows that the interaction effect was not significant at the 0.05 level of significance. The main effect for integrative orientation was significant, but the effect was in the opposite direction to that postulated. Subjects who scored high on integrative orientation had a more positive attitude toward English Canadians than subjects who scored low on this variable. The results, therefore, do not provide support for the research hypotheses. The main effect for dogmatism was also non-significant. This, however, was expected. In the next section, the results of the analysis are discussed.

TABLE VI

Results of the Two-Way Analysis of Variance with Integrative Orientation and Dogmatism as Independent Variables and Attitude toward English Canadians as the Criterion

Source of variation	MS	df	F	p
Integrative Orientation	1068.362	1,166	8.777	0.0035
Dogmatism	52.654	1,166	0.433	0.5117
Interaction	33.423	1,166	0.275	0.6010

2. Discussion of Results

The results indicate that the research hypotheses were not supported. However, a significant main effect for integrative orientation, although in the opposite direction than predicted, was found. This is discussed below, along with special circumstances relevant to the subjects tested that may have affected the relationship expected between integrative orientation, dogmatism and attitude toward the first language group.

As indicated in Chapter II, it was expected that non-integratively oriented subjects would have a more positive attitude toward the first language group than integratively oriented subjects. The results of the analysis, however, indicated the reverse: integratively oriented subjects evaluated the first language group more positively than did non-integratively oriented subjects. Thus, in so far as attitude toward the first-language group is an indicator of the level of satisfaction with that group, integratively oriented subjects were more satisfied with the first language group than non-integratively oriented subjects.

It may be that the lack of a high level of satisfaction with the first language inhibits or impedes rather than motivates seeking out a new cultural group. Thus, until secure and content with the first language group, a person may be unable to exhibit an outgoing, sincere interest in a second language

group as is characteristic of an integratively oriented individual. Although the results of this study do not allow firm conclusions to be drawn, they do indicate a need to look further into the relationship between integrative orientation and attitude toward the first language group.

Special circumstances relevant to the subjects in the study that may have affected the results were also found. As indicated in Chapter II, the mean score on dogmatism for subjects in the study was 133.6, somewhat below the range of means reported by Rokeach for several American and British samples. Scores ranged from 41 to 199 out of a possible range from 40 to 280. The lowest score observed (41) corresponds to an average item score of 1.00 (the response "I disagree very much") on the forty-item D-Scale, while the highest score (199) corresponds to an average item score of only 4.97 (close to the response "I agree a little"). The majority of subjects, therefore, scored toward the low or non-dogmatic end of the scale.

With the restricted distribution on dogmatism, the mean score for subjects classified as high on the variable was only 157.5, or close to the mid-point on the D-Scale. The range of scores for this group was from 141 to 199. These scores correspond, respectively, to average item scores of 3.53 (close to the neutral point) and 4.97 (close to the response "I agree a

little"). Subjects classified as high dogmatics were, therefore, not extremely dogmatic. Among such subjects it is unlikely that clear in-group and out-group distinctions would be evident. They could rather be expected to have a similar outlook toward English Canadians as subjects classified as low dogmatics. Thus, the absence of extremely dogmatic subjects in the study may account for the lack of support for the research hypotheses, which were based on expectations relating to extremely high and low scorers on dogmatism.

A restricted distribution on integrative orientation for subjects in the study may also have contributed to the lack of support for the research hypotheses. As indicated in Chapter II, the mean score on integrative orientation was 44.8, which corresponds to a score above the mid-point, toward the high integrative orientation end of the eight-item Ratings of Integrative Orientation Scale. Scores ranged from 26 to 56 out of a possible range from 8 to 56. The minimum score corresponds to an average item score of 3.25 (close to the response "Slightly disagree") while the maximum corresponds to an average item score of 7.00 (the response "Strongly agree"). The majority of subjects were, therefore, integratively oriented.

With this distribution, the mean score for subjects classified as low on integrative orientation was 38.8, which

corresponds to a score slightly above the mid-point, toward the high integrative orientation end of the Ratings of Integrative Orientation Scale. Scores ranged from 26 to 43. The minimum corresponds to an average item response of 3.25 (above the response "Slightly disagree") and the maximum, to 5.38 (almost mid-way between the responses "Slightly agree" and "Moderately agree"). Subjects classified as low on integrative orientation were, therefore, slightly integratively oriented rather than non-integratively oriented. The attitude of such subjects toward English Canadians may not be as positive as that expected from non-integratively oriented persons.

The fact that most subjects in this study were relatively integratively oriented may be related to characteristics of the course and the setting in which the course was offered. The six-week summer institute was in a Francophone setting and most persons enrolled on a voluntary basis. Since the course is not obligatory and offers ample opportunity to mix with Francophones, it may tend to attract primarily integratively oriented persons.

The characteristics of the course may also account for the relatively non-dogmatic character of the subjects. Persons who are out-going and for whom meeting people from different cultural backgrounds presents no cultural allegiance conflicts would probably be more likely to attend such a course than

those who feel they need to exhibit their loyalty to the first language group. In addition, most subjects in the study were at the intermediate or advanced level of French study and probably had had a chance to react previously to contact with the second language group. Most dogmatics, for whom contact with the second language group may have caused cultural conflicts, would probably have already discontinued the study of French.

To determine whether such possible selection biases may have been responsible for the results observed in this study, it would be important to replicate the study in a non-Francophone community with subjects enrolled in a compulsory French course.

To explore further the relationships among the variables included in this study and other possible reasons for the results obtained, Pearson product-moment correlations were computed between the study variables. Correlations were also computed between the study variables and scores on the Evaluation of French Canadians Scale, which was included in the study questionnaire. Although attitude toward French Canadians was not included in the research hypotheses it is an important variable in Lambert's theory. For this reason, it was included in the post-hoc analysis.

The intercorrelations between variables are presented in Table VII. Correlations between integrative orientation and the three variables, dogmatism, attitude toward English

TABLE VII

Correlations between Integrative Orientation,
Dogmatism, Attitude toward English Canadians
and Attitude toward French Canadians

Variables	2	3	4
1. Integrative Orientation	0.17719 p=0.002	0.19248 p=0.000	0.24757* p=0.000
2. Dogmatism		0.02099 p=0.721	-0.03456* p=0.559
3. Attitude toward English Canadians			0.78225* p=0.000
4. Attitude toward French Canadians			

n = 292

* 4 missing values

Canadians and attitude toward French Canadians were positive and significant at the $p < .05$ level, but were quite low, ranging from .18 to .25. The positive correlation between integrative orientation and attitude toward French Canadians, though, is consistent with Lambert's theory. The correlation between attitude toward English Canadians and attitude toward French Canadians was also positive and significant at the $p < .05$ level. It was quite high, indicating subjects had relatively similar views toward both language groups. This could be due to the generally non-dogmatic character of subjects in the study.

The correlations between dogmatism and the variables attitude toward English Canadians and attitude toward French Canadians were non-significant. In an Anglophone population with a full distribution of dogmatism scores, one would expect a positive correlation between dogmatism and attitude toward the first language group, as the majority would likely regard this group as the in-group. In the same population, a negative relationship would be expected between dogmatism and attitude toward the second language group. The lack of significant correlations observed in this study between these variables might be due to the limited distribution of dogmatism scores found among subjects.

Another possible explanation is that attitudes toward the first and second language group may differ at different

levels of proficiency in the second language. As mentioned in Chapter I, Lambert has suggested that attitudes toward the two language groups may change as one becomes more proficient in the second language. To investigate this possibility correlations between dogmatism and the two variables attitude toward English Canadians and attitude toward French Canadians were computed separately for subjects at each level of French.

The results, presented in Table VIII, indicate one correlation was significant, the negative correlation between dogmatism and attitude toward French Canadians among Level III subjects. Although the correlation reflects the relationship between these variables expected for an Anglophone population, it was nevertheless quite low. All other correlations were non-significant. The results, therefore, fail to indicate that attitudes toward the first and second language group were different at the three levels of French study.

The relatively non-dogmatic character of the subjects in the study, therefore, appears to be the only viable explanation for a lack of correlations between dogmatism and attitudes toward the first and second language groups. To draw firm conclusions, however, it would be necessary to ascertain the relationship between these variables in an Anglophone population with a full range of dogmatism scores.

As indicated in the preceding discussion, the results of the analysis of data did not support empirically the

TABLE VIII

Correlations between Dogmatism, Attitude toward
English Canadians and Attitude toward French
Canadians by Level of French Class

Variables	Dogmatism and Attitude toward English Canadians	Dogmatism and Attitude toward French Canadians
Level I		
r	0.18028	0.16896*
p	0.315	0.355
n=33		
Level II		
r	-0.05509	-0.00551**
p	0.469	0.943
n=175		
Level III		
r	-0.15331	-0.22549*
p	0.164	0.040
n=84		

* 1 missing value

** 2 missing values

research hypotheses which were based on Lambert's theory. It had been hypothesized that integratively oriented students would differ in attitude toward the first language group as a function of levels of dogmatism. Contrary to expectations, it was found that integratively oriented, rather than non-integratively oriented, subjects had a more positive attitude toward the first language group. However, the range of scores for dogmatism and for integrative orientation were also found to be restricted. The absence of extremely dogmatic and extremely non-integratively oriented subjects may have caused the lack of support for the relationship expected between integrative orientation, dogmatism and attitude toward the first language group.

Consequently, the results obtained in the study cannot be interpreted as necessarily indicating a lack of support for the aspect of Lambert's theory that was tested. The only conclusion that can be drawn is that further studies are needed to determine the relationship between integrative orientation, dogmatism and attitude toward the first language group. In any replication of the study with subjects studying French as a second language, it would be important to ensure that there is a full distribution of dogmatism and integrative orientation attributes among subjects. By using students enrolled in a compulsory French course in a non-Francophone setting, a selection bias could probably be avoided.

SUMMARY AND CONCLUSIONS

The purpose of this study was to test empirically an aspect of Lambert's early work on a socio-psychological theory of second language learning. He has suggested that two bases may underlie an integrative orientation: dissatisfaction with one's own group or a genuine interest in both language groups. Dogmatism, an authoritarian-like personality disposition described by Rokeach, could explain the difference in outlook toward the first language group implied by the two types of integratively oriented students suggested by Lambert. Therefore, following a discussion of Lambert's theory and Rokeach's concept of dogmatism, two research hypotheses were postulated:

1. There is interaction between integrative orientation and dogmatism in relation to attitude toward the first language group. Integratively oriented dogmatics are expected to evaluate the group less favorably than integratively and non-integratively oriented non-dogmatics, who in turn are expected to evaluate the group less favorably than non-integratively oriented dogmatics.
2. Integratively oriented subjects evaluate the first language group less favorably than non-integratively oriented subjects.

The subjects for the study were 292 Anglophones who were studying French in a six-week summer immersion program. The Evaluation of English Canadians Scale developed by Gardner et al. was used to determine attitude toward the first language group. Integrative orientation was measured by a scale developed by Gardner et al. and dogmatism by Rokeach's D-Scale.

The data were analyzed by means of two-way analysis of variance. The results obtained failed to support the interaction hypothesis. The main effects hypothesis, although significant at the .05 level of significance, was in the opposite direction predicted. Integratively oriented subjects had more positive attitude toward English Canadians than integratively oriented subjects. It may be, therefore, that a lack of satisfaction with the first language group impedes or inhibits rather than motivates developing a closer association with a second language group, as implied by an integrative orientation. Although the results from this study do not allow for firm conclusions to be drawn, they do indicate a need for further research in this area.

Special circumstances were also found that may have affected the relationship postulated. The distribution of scores on dogmatism obtained with subjects in the study was restricted, with no subjects at the extremely high dogmatic end of the distribution. Scores of those classified in the study as high dogmatics, therefore, corresponded to average responses indicative of only slightly dogmatic subjects. Since the research hypotheses were based on contrasts between high and low dogmatics, the restricted distribution of dogmatism could account for the similarity in attitude toward English Canadians found between subjects classified as high and low dogmatics in the study.

The distribution of scores on integrative orientation was also restricted with no subjects at the extremely low integrative orientation end of the distribution. Consequently, scores of those classified as low on integrative orientation corresponded to average responses indicative of slightly integratively oriented, rather than non-integratively oriented, subjects. This, along with the restricted range on dogmatism, could account for the relatively low scores on the Evaluation of English Canadian's Scale observed among subjects classified as low on integrative orientation.

The Francophone setting of the summer institute in which the study was undertaken, along with the fact that attendance at the institute was voluntary, may have contributed to the restricted distributions on dogmatism and integrative orientation. Presumably, subjects who are outgoing and perceive no cultural allegiance conflicts arising from a closer association with the second language group would be more likely to enroll in such a course.

Given the possible selection bias operative in this study, it is difficult to conclude that the results obtained necessarily failed to support the theoretical framework for the research hypotheses. Only if similar results were obtained with subjects drawn from a population showing a complete distribution on dogmatism and integrative orientation could this conclusion be drawn. Thus, there is a need

to replicate this study. Such a study would best be carried out in a non-Francophone setting with subjects enrolled in an obligatory French course since the setting and course characteristics may have contributed to the restricted distributions on dogmatism and integrative orientation found in this study.

The fact that restricted distributions on the independent variables were obtained in this study points to another area for further research; that is, the possible role of course characteristics and setting in influencing enrollment in courses. If, as was found in this study, subjects in elective French courses or courses offered in Francophone settings tend consistently to be non-dogmatic or integratively oriented, it is likely such courses are attracting only a portion of the Anglophone population. Such a finding, if supported in other studies, would have definite implications for educators responsible for language program policy, particularly in Canada where bilingualism is currently emphasized.

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Lambert, Wallace E., "A Social Psychology of Bilingualism", in the Journal of Social Issues, Vol. 23, No. 2, 1967, p. 91-109.

A further discussion of the social-psychological aspects of second language learning is presented along with some of the main findings from early empirical studies.

Gardner, Robert C. and Wallace E. Lambert, Attitudes and Motivation in Second Language Learning, Rowley, Massachusetts, Newbury House, 1972, 315 p.

The authors summarize the main components of a socio-psychological theory and present the results of studies in three American settings which were undertaken to replicate the findings from earlier studies carried out in Montreal. A useful readings section contains detailed descriptions of the earlier studies.

Gardner, R.C., P.C. Smythe, D.M. Kirby and J.R. Bramwell, Second Language Acquisition: A Social Psychological Approach. Final report to the Ontario Ministry of Education for a Grant-in-aid to Education, Mimeo, 1974.

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Rokeach, Milton, "The Nature and Meaning of Dogmatism", in the Psychological Review, Vol. 61, No. 3, 1954, p. 194-204.

An initial description of the concept of dogmatism, along with the structure of belief-disbelief systems, is presented and compared with the concept of authoritarianism as defined by Adorno et al.

Rokeach, Milton, The Open and Closed Mind, New York, Basic Books, 1960, 447 p.

In this treatise on dogmatism, an extended description of the structure of belief-disbelief systems is presented and provides the basis for distinctions between open and closed minds. The D-Scale is also presented, along with the results of studies undertaken to establish the validity and reliability of the instrument.

Vacchiano, Ralph B., Paul S. Strauss and Leonard Hochman, "The Open and Closed Mind: A Review of Dogmatism", in the Psychological Bulletin, Vol. 71, No. 4, 1969, p. 261-273.

Studies in which the dogmatism personality style is investigated and related to other psychological factors are reviewed. Support for Rokeach's concept as a generalized theory of authoritarianism is concluded.

APPENDIX I

QUESTIONNAIRE

Used to Collect Data on
Integrative Orientation,
Dogmatism and Attitude
toward the First Language
Group

You are asked to complete this questionnaire as part of a study on the attitudes of students learning a second language. It is hoped that the study will provide information on various factors influencing the learning of a second language that will be of benefit to future classes of second-language learners.

YOUR ANSWERS WILL BE KEPT CONFIDENTIAL. The results will be presented in summary form only. The background data requested below will be used only to determine the sample and the general characteristics of the group as a whole, for example, average age and geographical distribution.

The questionnaire consists of three parts. Each part is preceded by instructions for completing that part. When you have completed one part of the questionnaire, go on to the next. For each of the items in the three parts, give your immediate reactions. Don't waste time thinking about each statement. On the other hand, please do not be careless as it is important that you indicate your true feelings.

Thank you for your cooperation.

BACKGROUND DATA

1. Age: _____.
 2. Sex: Male _____; Female _____.
 3. Level of French class you are enrolled in:
Beginning _____; Intermediate _____; Advanced _____.
 4. Number of years of previous instruction in French: _____.
 5. Language you speak at home: _____.
 6. Other languages you speak and understand: _____; _____; _____.
 7. Home address: _____
City _____ Province _____
 8. Citizenship: Canadian _____; Other _____.
 9. Number of years you have lived in Canada: _____.
 10. Reason for enrolling in this institute: _____
-

Following are a number of statements with which some people agreed and others disagree. There are no right or wrong answers since many people have different opinions. Indicate your opinion about each statement by checking the alternative below it which best indicates the extent to which you disagree or agree with that statement. PLEASE CHECK EVERY STATEMENT.

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

Bobby Orr is the best player to have ever played in the National Hockey League.

<u>Strongly</u> Disagree	<u>Moderately</u> Disagree	<u>Slightly</u> Disagree	<u>Neutral</u>	<u>Slightly</u> Agree	<u>Moderately</u> Agree	<u>Strongly</u> Agree
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In answering this question, you should have checked one of the above alternatives. Some people would check Strongly Disagree, others would check Strongly Agree, and still others would check one of the alternatives in between. Which one you checked would indicate your own feelings based on every thing you know and have heard. Note, there is no right or wrong answer. All that is important is that you indicate your personal feeling.

1. Studying French can be important for me because it will enable me to gain good friends more easily among French-speaking Canadians.

<u>Strongly</u> Disagree	<u>Moderately</u> Disagree	<u>Slightly</u> Disagree	<u>Neutral</u>	<u>Slightly</u> Agree	<u>Moderately</u> Agree	<u>Strongly</u> Agree
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2. Studying French can be important for me because it will allow me to be more at ease with fellow Canadians who speak French.

<u>Strongly</u> Disagree	<u>Moderately</u> Disagree	<u>Slightly</u> Disagree	<u>Neutral</u>	<u>Slightly</u> Agree	<u>Moderately</u> Agree	<u>Strongly</u> Agree
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3. Studying French can be important for me because it will make me a more knowledgeable person.

<u>Strongly</u> Disagree	<u>Moderately</u> Disagree	<u>Slightly</u> Disagree	<u>Neutral</u>	<u>Slightly</u> Agree	<u>Moderately</u> Agree	<u>Strongly</u> Agree
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4. Studying French can be important for me because it will enable me to better understand and appreciate French Canadian art and literature.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
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5. Studying French can be important for me because it will help me to understand French Canadians and their way of life.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
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6. Studying French can be important for me because I feel that no one is really educated unless he is fluent in the French language.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
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7. Studying French can be important for me only because I'll need it for my future career.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
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8. Studying French can be important for me because I will be able to participate more freely in the activities of other cultural groups.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
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9. Studying French can be important for me because it will enable me to think and behave like French Canadians.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
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10. Studying French can be important for me because it will make me appear more cultured.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
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11. Studying French can be important for me because it will help me to appreciate the problems that French people have in a predominantly English-speaking country.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
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12. Studying French can be important for me because it will allow me to meet and converse with more and varied people.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
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13. Studying French can be important for me because I think it will someday be useful in getting a good job.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
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14. Studying French can be important for me because other people will respect me more if I have a knowledge of a foreign language.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
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15. Studying French can be important for me because it will help me if I should ever travel.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
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The purpose of this part of the questionnaire is to obtain some indication of how you think and feel about a number of important social and personal questions. The best answer to each statement below is your personal opinion. We have tried to cover many different and opposing points of view; you may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others. Whether you agree or disagree with any statements, you can be sure that many people feel the same as you do.

In the parentheses in the left margin, mark each statement according to how much you agree or disagree with it. PLEASE MARK EVERY ONE. Write +1, +2, +3, or -1, -2, -3 in the parentheses next to each statement, depending on how you feel in each case. Use the code shown below; it is repeated on each succeeding page of this part.

Code

+1: I AGREE A LITTLE	-1: I DISAGREE A LITTLE
+2: I AGREE ON THE WHOLE	-2: I DISAGREE ON THE WHOLE
+3: I AGREE VERY MUCH	-3: I DISAGREE VERY MUCH

- () 1. The highest form of government is a democracy and the highest form of democracy is a government run by those who are the most intelligent.
- () 2. Most people just don't know what's good for them.
- () 3. Man on his own is a helpless and miserable creature.
- () 4. Most people just don't give a "damn" for others.
- () 5. Fundamentally, the world we live in is a pretty lonesome place.
- () 6. Once I get wound up in a heated discussion I just can't stop.
- () 7. The present is all too often full of unhappiness. It is only the future that counts.
- () 8. It is only natural that a person would have a much better acquaintance with ideas he believes in than with ideas he opposes.
- () 9. It is better to be a dead hero than to be a live coward.
- () 10. The worst crime a person could commit is to attack publicly the people who believe in the same thing he does.
- () 11. In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.

- | | |
|--------------------------|-----------------------------|
| +1: I AGREE A LITTLE | -1: I DISAGREE A LITTLE |
| +2: I AGREE ON THE WHOLE | -2: I DISAGREE ON THE WHOLE |
| +3: I AGREE VERY MUCH | -3: I DISAGREE VERY MUCH |

- () 12. A person who gets enthusiastic about too many causes is likely to be a pretty "wishy-washy" sort of person.
- () 13. Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what's going on.
- () 14. There are two kinds of people in this world: those who are for the truth and those who are against the truth.
- () 15. In a heated discussion people have a way of bringing up irrelevant issues rather than sticking to the main issue.
- () 16. It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.
- () 17. In times like these it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camp.
- () 18. Young people should not have too easy access to books which are likely to confuse them.
- () 19. A man who does not believe in some great cause has not really lived.
- () 20. In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.
- () 21. While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein, or Beethoven, or Shakespeare.
- () 22. In the history of mankind there have probably been just a handful of really great thinkers.
- () 23. Canada and Russia have just about nothing in common.
- () 24. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.
- () 25. In times like these, a person must be pretty selfish if he considers primarily his own happiness.
- () 26. In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.
- () 27. A person who thinks primarily of his own happiness is beneath contempt.

- | | |
|--------------------------|-----------------------------|
| +1: I AGREE A LITTLE | -1: I DISAGREE A LITTLE |
| +2: I AGREE ON THE WHOLE | -2: I DISAGREE ON THE WHOLE |
| +3: I AGREE VERY MUCH | -3: I DISAGREE VERY MUCH |

- () 28. Most of the ideas which get printed nowadays aren't worth the paper they are printed on.
- () 29. If a man is to accomplish his mission in life it is sometimes necessary to gamble "all or nothing at all."
- () 30. In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying.
- () 31. I'd like it if I could find someone who would tell me how to solve my personal problems.
- () 32. To achieve the happiness of mankind in the future it is sometimes necessary to put up with injustices in the present.
- () 33. If given the chance I would do something of great benefit to the world.
- () 34. My blood boils whenever a person stubbornly refuses to admit he's wrong.
- () 35. When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.
- () 36. There is so much to be done and so little time to do it in.
- () 37. Of all the different philosophies which exist in this world there is probably only one which is correct.
- () 38. The main thing in life is for a person to want to do something important.
- () 39. It is only natural for a person to be rather fearful of the future.
- () 40. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.
- () 41. Even though I have a lot of faith in the intelligence and wisdom of the common man I must say that the masses behave stupidly at times.
- () 42. I have often felt that strangers were looking at me critically.
- () 43. It is only when a person devotes himself to an ideal or cause that life becomes meaningful.
- () 44. A group which tolerates too much differences of opinion among its own members cannot exist for long.
- () 45. There are a number of people I have come to hate because of the things they stand for.

The purpose of this part of the questionnaire is to determine your ideas and impressions about a number of things such as French Canadians, English Canadians and the like. We call these things concepts. In answering this section, you will be asked to rate a number of such 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.

Here 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:

Fair X : _____ : _____ : _____ : _____ : _____ : _____ Unfair
 Fair _____ : _____ : _____ : OR : _____ : _____ : _____ : X Unfair

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:

Good _____ : X : _____ : _____ : _____ : _____ : _____ Bad
 Good _____ : _____ : _____ : OR : _____ : _____ : X : _____ Bad

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:

Hard _____ : _____ : X : _____ : _____ : _____ : _____ Easy
 Hard _____ : _____ : _____ : OR : _____ : X : _____ : _____ Easy

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:

Weak _____ : _____ : _____ : X : _____ : _____ : _____ Strong

PLEASE PLACE ONE CHECK-MARK ON EVERY SCALE.

The following is an example.

Snake

friendly _____ : _____ : _____ : _____ : X : _____ : _____ unfriendly
 dangerous X : _____ : _____ : _____ : _____ : _____ : _____ safe
 fast _____ : _____ : _____ : _____ : _____ : X : _____ slow

In this example, the concept was snake, and one check-mark was placed on each of the three scales. In the example, snake is seen as slightly unfriendly, extremely dangerous and somewhat slow. Your ratings may have been different depending upon what ideas and impressions you have of the concept "snake". There are no right or wrong answers. We want you to indicate your own ideas and impressions.

EUROPEAN FRENCH PEOPLE

kind	:	:	:	:	:	:	cruel
undependable	:	:	:	:	:	:	dependable
calm	:	:	:	:	:	:	excitable
bad	:	:	:	:	:	:	good
modern	:	:	:	:	:	:	primitive
dishonest	:	:	:	:	:	:	honest
cheerful	:	:	:	:	:	:	cheerless
friendly	:	:	:	:	:	:	unfriendly
colourless	:	:	:	:	:	:	colourful
artistic	:	:	:	:	:	:	inartistic
disloyal	:	:	:	:	:	:	loyal
reliable	:	:	:	:	:	:	unreliable
patient	:	:	:	:	:	:	impatient
emotional	:	:	:	:	:	:	unemotional
passive	:	:	:	:	:	:	active
insincere	:	:	:	:	:	:	sincere
pleasant	:	:	:	:	:	:	unpleasant
proud	:	:	:	:	:	:	humble
impolite	:	:	:	:	:	:	polite
likeable	:	:	:	:	:	:	unlikeable
intelligent	:	:	:	:	:	:	stupid
untrustworthy	:	:	:	:	:	:	trustworthy
unambitious	:	:	:	:	:	:	ambitious
religious	:	:	:	:	:	:	non-religious
sensitive	:	:	:	:	:	:	insensitive
athletic	:	:	:	:	:	:	unathletic
quiet	:	:	:	:	:	:	talkative
industrious	:	:	:	:	:	:	lazy
inconsiderate	:	:	:	:	:	:	considerate
leader	:	:	:	:	:	:	follower

APPENDIX 2

RAW DATA

Obtained from the Questionnaires

I.D.	AGE	SEX	LEVEL OF FRENCH CLASS	PROVINCE OF RESIDENCE	INTEGRATIVE ORIENTATION SCORE	DOGMATISM SCORE	ATTITUDE TOWARD ENGLISH CANADIANS SCORE	ATTITUDE TOWARD FRENCH CANADIANS SCORE
100	18	F	1	B.C.	52	131	72	77
101	47	M	1	Que.	34	146	61	57
102	19	F	2	B.C.	41	117	52	52
103	19	M	2	B.C.	38	148	61	49
104	18	F	2	N.S.	49	95	91	91
105	29	M	2	Y.T.	48	147	52	52
106	19	F	2	Sask.	50	148	59	59
107	18	F	2	Alb.	48	114	52	52
108	43	M	2	Que.	50	136	56	57
109	54	F	2	N.S.	32	150	63	73
110	32	M	2	Nfld.	44	137	63	65
111	44	M	2	Ont.	44	127	56	58
112	33	M	2	Que.	44	141	57	67
113	47	F	2	Ont.	46	78	83	88
114	22	F	2	N.B.	45	148	75	72
115	21	F	2	Man.	37	124	79	74
116	23	F	2	Missing	37	142	64	65
117	18	F	2	Alb.	47	181	77	79
118	24	M	2	Ont.	50	157	62	68
119	20	F	2	Ont.	46	95	79	85
120	18	F	2	N.S.	50	154	72	68
121	24	M	2	B.C.	46	168	51	70
122	25	M	2	B.C.	50	135	53	63
123	24	M	3	Ont.	44	118	52	52
124	19	F	3	Ont.	40	150	44	67
125	19	F	3	B.C.	46	127	51	54
126	47	M	3	Ont.	47	154	53	58
127	23	F	3	N.B.	43	119	74	77
128	19	F	3	Alb.	40	133	76	79
129	18	M	2	B.C.	39	154	68	49
130	59	M	2	Ont.	51	168	77	60

I.D.	AGE	SEX	LEVEL OF FRENCH CLASS	PROVINCE OF RESIDENCE	INTEGRATIVE ORIENTATION SCORE	DOGMATISM SCORE	ATTITUDE TOWARD ENGLISH CANADIANS SCORE	ATTITUDE TOWARD FRENCH CANADIANS SCORE
131	39	M	2	B.C.	50	122	65	76
132	18	F	2	Ont.	50	133	78	73
133	18	F	2	Ont.	48	145	85	83
134	18	M	2	B.C.	51	155	69	69
135	17	M	2	Ont.	40	130	73	77
136	22	F	2	Ont.	38	115	52	52
137	27	F	2	N.S.	37	167	63	58
138	49	M	2	Ont.	51	125	78	81
139	43	M	1	Nfld.	41	180	87	86
140	38	F	2	B.C.	38	112	58	60
141	21	M	2	Ont.	47	114	52	66
142	21	M	2	N.B.	48	69	77	77
143	18	F	2	N.B.	46	127	73	75
144	20	F	2	Alb.	52	164	72	78
145	21	F	2	Ont.	50	137	57	60
146	21	F	2	N.S.	51	140	82	83
147	21	F	2	Sask.	49	135	69	80
148	23	F	2	Que.	46	113	55	52
149	24	M	1	Que.	32	115	63	64
150	20	F	2	B.C.	44	164	64	79
151	19	F	2	Ont.	55	123	52	Missing
152	26	F	2	Ont.	26	133	46	45
153	23	F	2	Que.	54	160	51	58
154	24	M	2	N.S.	52	100	89	89
155	19	F	2	B.C.	46	151	72	72
156	19	M	2	B.C.	40	121	60	58
157	18	F	2	Sask.	41	125	60	58
158	21	M	2	Ont.	52	98	61	72
159	27	M	2	N.B.	48	160	52	52
160	20	F	2	Nfld. Man.	45	135	52	52

I.D.	AGE	SEX	LEVEL OF FRENCH CLASS	PROVINCE OF RESIDENCE	INTEGRATIVE ORIENTATION SCORE	DOGMATISM SCORE	ATTITUDE TOWARD ENGLISH CANADIANS SCORE	ATTITUDE TOWARD FRENCH CANADIANS SCORE
161	22	F	1	B.C.	46	128	52	52
162	20	F	1	B.C.	37	121	55	50
163	21	F	2	Man.	48	128	52	53
164	19	F	2	B.C.	54	121	88	88
165	25	F	2	B.C.	43	123	77	77
166	27	F	2	Sask.	40	122	70	79
168	24	F	2	B.C.	37	142	49	55
169	37	M	2	Ont.	48	122	72	70
170	24	M	2	Ont.	35	140	76	67
171	23	F	3	Alb.	51	137	58	75
172	23	F	3	N.S.	45	118	72	71
173	28	F	3	N.S.	50	131	74	81
174	21	F	3	Ont.	50	101	62	68
175	23	M	3	B.C.	47	142	81	90
176	19	F	3	N.S.	55	87	54	57
177	18	F	3	Que.	39	133	75	76
178	30	M	3	Que.	48	133	60	67
179	21	F	3	Ont.	41	128	61	70
180	21	F	3	Man.	54	112	87	86
181	42	F	3	B.C.	46	156	76	89
182	18	F	2	Ont.	47	141	52	52
183	20	F	2	B.C.	51	130	84	84
184	18	F	2	Sask.	43	123	79	83
185	18	F	2	N.S.	35	105	64	59
186	21	M	3	Que.	46	155	57	66
187	21	F	3	Que.	41	157	74	71
188	99	F	3	Ont.	48	147	66	71
189	36	F	3	N.S.	52	191	72	79
190	19	M	3	Ont.	49	135	53	60
191	20	F	3	Ont.	47	129	65	67
192	18	F	3	B.C. Man.	46	154	67	68

I.D.	AGE	SEX	LEVEL OF FRENCH CLASS	PROVINCE OF RESIDENCE	INTEGRATIVE ORIENTATION SCORE	DOGMATISM SCORE	ATTITUDE TOWARD ENGLISH CANADIANS SCORE	ATTITUDE TOWARD FRENCH CANADIANS SCORE
193	21	F	1	B.C.	48	138	52	52
194	21	F	1	Alb.	43	139	66	73
195	18	M	1	Man.	46	162	44	57
196	22	M	1	N.B.	50	93	58	59
197	60	F	1	Que.	39	103	64	58
198	24	F	1	Que.	38	113	65	66
200	18	F	2	B.C.	47	100	78	78
201	18	F	2	Alb.	43	134	62	53
202	18	F	2	Alb.	49	151	77	53
203	21	F	1	Alb.	49	135	78	68
204	19	F	2	Sask.	48	163	53	79
205	30	M	1	B.C.	43	41	52	58
206	21	M	1	Que.	43	119	61	52
207	20	F	2	Ont.	51	177	73	87
208	19	F	2	B.C.	51	131	72	78
209	20	F	2	Que.	41	138	79	66
210	19	F	3	N.S.	36	143	56	77
211	20	F	3	N.S.	49	199	65	63
212	21	M	3	Alb.	50	109	78	64
213	18	F	3	Que.	40	84	78	79
214	19	F	3	B.C.	39	88	65	69
215	23	M	2	Man.	49	121	59	63
216	22	F	2	Ont.	37	110	77	71
217	26	M	2	Que.	39	167	50	78
219	21	M	2	Ont.	44	90	53	65
220	18	F	2	Que.	40	114	62	60
221	20	F	2	Man.	40	130	73	66
222	21	M	2	Que.	50	137	79	80
223	18	E	2	Ont.	40	143	61	82
225	19	F	2	Ont.	26	99	53	83
226	21	M	2	Que.	27	78	53	64
								66

I.D.	AGE	SEX	LEVEL OF FRENCH CLASS	PROVINCE OF RESIDENCE	INTEGRATIVE ORIENTATION SCORE	DOGMATISM SCORE	ATTITUDE TOWARD ENGLISH CANADIANS SCORE	ATTITUDE TOWARD FRENCH CANADIANS SCORE
227	33	M	2	N.S.	41	137	78	71
228	25	M	2	N.B.	53	152	68	72
229	18	M	2	Sask.	39	142	56	57
230	18	F	2	N.B.	45	131	52	52
231	19	M	2	Man.	52	137	71	72
232	20	M	2	Ont.	48	110	78	74
233	18	F	2	Ont.	49	160	77	63
234	19	F	2	Que	45	140	77	72
235	22	F	2	B.C.	40	100	52	52
236	23	F	2	B.C.	43	108	71	71
237	19	F	2	Sask.	38	141	73	73
238	19	F	2	N.B.	49	117	83	79
239	22	M	2	Ont.	49	109	52	52
240	31	F	2	B.C.	49	122	52	52
241	37	F	2	N.B.	45	131	54	56
242	24	M	2	Ont.	52	141	52	52
243	48	M	2	Ont.	40	107	60	64
244	24	F	2	Man.	35	133	74	79
245	24	F	2	Ont.	45	99	53	56
246	18	F	2	Sask.	40	127	74	70
247	47	M	2	Ont.	47	133	52	57
248	20	F	2	Ont.	51	117	69	75
249	21	M	2	B.C.	40	98	53	57
250	17	F	2	Ont.	48	155	59	58
251	22	F	3	Ont.	41	155	59	53
252	20	F	3	Nfld.	48	112	62	72
253	20	F	3	Ont.	52	136	64	84
254	18	F	2	Ont.	47	162	77	73
255	22	M	2	Ont.	45	91	66	70
256	21	F	2	N.B.	46	165	57	53
257	18	F	2	Ont.	52	171	52	53

Missing

I.D.	AGE	SEX	LEVEL OF FRENCH CLASS	PROVINCE OF RESIDENCE	INTEGRATIVE ORIENTATION SCORE	DOGMATISM SCORE	ATTITUDE TOWARD ENGLISH CANADIANS SCORE	ATTITUDE TOWARD FRENCH CANADIANS SCORE
258	21	M	2	N.B.	36	148	54	54
259	21	M	2	Que.	48	131	78	82
260	18	M	2	N.B.	32	192	77	73
261	52	M	2	Ont.	54	107	77	84
262	24	M	2	B.C.	45	130.	63	71
263	21	F	2	Ont.	50	140	52	52
264	19	F	2	Nfld.	49	154	85	86
265	18	F	2	Ont.	45	156	51	54
266	18	F	2	N.S.	50	116	52	52
267	19	F	2	Ont.	41	136	57	75
268	20	M	2	N.S.	44	146	55	64
269	20	M	2	Ont.	54	151	66	71
270	31	F	1	Que.	52	119	73	74
271	20	F	1	B.C.	45	124	73	75
272	19	F	2	Ont.	39	142	55	68
273	18	F	2	Ont.	49	165	74	65
274	19	F	2	N.B.	48	154	78	72
275	19	F	2	Ont.	48	128	77	77
276	18	F	2	Alb.	44	178	78	79
277	27	F	2	B.C.	50	167	72	79
278	19	F	2	B.C.	43	120	56	65
279	18	F	2	Alb.	44	132	62	61
280	18	M	2	Ont.	40	160	61	74
282	21	F	2	B.C.	46	145	71	64
283	25	M	2	N.B.	50	102	71	75
285	19	F	2	Nfld.	47	159	68	77
286	18	F	2	Ont.	35	153	51	51
288	20	F	2	B.C.	48	121	78	80
289	19	F	3	Ont.	46	136	58	65
290	22	F	2	B.C.	46	139	52	52
291	19	F	2	N.S.	49	113	52	52

I.D.	AGE	SEX	LEVEL OF FRENCH CLASS	PROVINCE OF RESIDENCE	INTEGRATIVE ORIENTATION SCORE	DOGMATISM SCORE	ATTITUDE TOWARD ENGLISH CANADIANS SCORE	ATTITUDE TOWARD FRENCH CANADIANS SCORE
292	23	F	1	N.B. Sask.	39	140	63	53
293	24	F	1	Sask.	46	145	74	72
294	53	M	1	Ont.	37	135	54	Missing
295	23	M	1	N.S.	42	129	52	52
296	28	F	2	B.C.	50	144	49	78
297	18	M	2	Ont.	47	127	76	65
298	18	F	2	Sask.	49	127	50	73
299	20	F	3	B.C.	49	117	84	85
300	21	F	3	Ont.	46	142	58	75
301	19	M	3	B.C.	48	174	58	66
302	22	F	3	N.S.	44	80	71	82
303	19	F	3	B.C.	35	126	76	74
304	19	F	2	N.B.	40	188	80	72
305	18	F	2	Ont.	44	150	52	52
306	20	F	2	Alb.	34	127	52	52
307	30	M	2	Ont.	45	132	52	58
308	22	F	2	Ont.	43	120	59	64
309	21	F	2	Ont.	45	90	52	52
310	18	F	2	Ont.	40	92	58	52
312	18	F	2	Ont.	30	131	62	49
313	23	F	2	B.C.	48	165	67	71
314	26	F	2	B.C.	40	111	56	70
315	20	F	2	B.C.	36	49	52	60
316	21	M	2	Alb.	39	116	53	64
317	49	M	3	Que.	34	112	65	64
318	19	F	3	Ont.	46	129	66	72
319	22	F	3	N.S.	45	199	85	65
320	18	M	3	B.C.	40	131	62	68
321	19	F	3	Alb.	44	172	51	49
322	19	F	3	Ont.	39	84	53	53
323	21	F	3	Alb.	41	107	65	67

I.D.	AGE	SEX	LEVEL OF FRENCH CLASS	PROVINCE OF RESIDENCE	INTEGRATIVE ORIENTATION SCORE	DOGMATISM SCORE	ATTITUDE TOWARD ENGLISH CANADIANS SCORE	ATTITUDE TOWARD FRENCH CANADIANS SCORE
324	22	F	2	Que.	51	150	65	66
325	42	F	3	Ont.	37	105	72	Missing
326	19	M	3	Ont.	43	156	76	76
327	20	F	3	B.C.	49	135	78	83
328	18	M	3	N.S.	44	160	62	61
329	21	F	3	N.S.	47	155	68	61
330	20	F	3	B.C.	47	170	56	59
331	20	F	3	Alb.	43	147	58	89
332	18	F	2	B.C.	48	165	76	70
333	20	M	3	B.C.	53	160	60	63
334	43	M	3	Que.	43	84	64	67
335	45	M	3	Ont.	47	159	63	68
336	22	M	3	Que.	44	119	52	58
337	20	F	3	B.C.	47	143	67	68
338	21	F	3	B.C.	47	148	64	62
339	20	F	3	Sask.	40	130	74	71
340	22	F	3	Ont.	43	129	58	46
341	30	M	3	Sask.	44	174	62	53
342	20	F	3	Man.	41	85	89	83
343	25	F	3	B.C.	42	143	62	59
344	19	F	3	N.B.	53	153	52	52
345	38	M	2	Ont.	49	143	52	54
346	22	F	2	Alb.	43	109	56	58
347	20	F	2	Ont.	29	173	54	61
348	19	F	2	B.C.	41	69	52	54
349	19	F	2	Sask.	40	143	52	54
350	20	M	2	Ont.	43	141	78	78
351	18	F	2	B.C.	51	131	89	85
352	24	M	2	Ont.	44	168	68	66
353	25	M	1	Ont.	38	115	51	59
354	18	F	1	Alb.	33	130	56	74

I.D.	AGE	SEX	LEVEL OF FRENCH CLASS	PROVINCE OF RESIDENCE	INTEGRATIVE ORIENTATION SCORE	DOGMATISM SCORE	ATTITUDE TOWARD ENGLISH CANADIANS SCORE	ATTITUDE TOWARD FRENCH CANADIANS SCORE
355	20	F	1	B.C.	41	132	51	55
356*	31	M	3	Ont.	50	141	72	78
357	34	F	3	Que.	44	94	77	79
358	24	F	3	Ont.	42	129	58	71
359	31	M	3	Ont.	39	128	52	60
360	28	M	3	Ont.	44	101	84	88
361	19	M	3	B.C.	36	134	53	62
362	20	M	3	Ont.	53	147	72	80
363	21	F	2	Que.	52	174	38	50
364	20	F	2	Que.	54	111	78	83
365	26	F	2	Ont.	48	131	55	61
366	24	F	1	B.C.	44	103	91	89
368	24	F	1	Ont.	50	137	76	72
369	21	F	1	N.S.	51	131	68	77
370	20	M	1	Ont.	46	146	63	57
371	20	M	1	N.B.	44	86	52	59
372	23	F	1	Sask.	32	115	54	59
373	31	F	1	Alb.	43	103	59	66
374	18	F	2	Alb.	47	152	71	74
375	54	M	2	Ont.	46	119	75	72
376	19	F	3	Que.	38	128	73	67
377	46	M	3	Ont.	54	126	69	76
378	18	F	3	B.C.	48	111	64	68
379	25	F	3	B.C.	39	126	65	70
380	19	F	2	Alb.	47	115	62	61
381	19	F	2	B.C.	44	143	67	69
382	18	F	2	B.C.	44	141	68	71
383	18	F	2	Alb.	51	163	52	65
384	19	F	2	Que.	42	144	54	63
385	24	M	3	Ont.	41	125	65	68
386	47	M	3	Ont.	41	146	65	57

I.D.	AGE	SEX	LEVEL OF FRENCH CLASS	PROVINCE OF RESIDENCE	INTEGRATIVE ORIENTATION SCORE	DOGMATISM SCORE	ATTITUDE TOWARD ENGLISH CANADIANS SCORE	ATTITUDE TOWARD FRENCH CANADIANS SCORE
387	22	M	3	Ont.	41	174	68	55
388	22	F	3	Ont.	56	172	52	52
389	22	M	3	Que.	53	174	70	68
390	26	M	3	B.C.	46	151	50	55
391	19	F	2	Ont.	49	153	66	75
392	18	F	2	Ont.	53	172	76	81
393	20	F	2	Nfld.	42	172	38	46
394	20	F	2	Nfld.	50	154	79	79
395	40	F	3	B.C.	47	137	57	52
396	22	F	2	Nfld.	50	175	91	83
397	23	F	1	Ont.	49	180	72	73
398	35	F	1	N.S.	50	58	72	73
399	20	F	2	N.B.	54	150	54	55
400	22	F	2	N.S.	56	171	67	75

APPENDIX 3

ABSTRACT OF

An Investigation of the Relationship Between
Integrative Orientation in Second Language
Learning, Dogmatism and Attitude toward the First
Language Group¹

In Lambert's early work on a socio-psychological theory of second language learning, it is suggested that persons with an integrative orientation may vary in attitude toward the first language group. Since the theoretical expectations associated with dogmatism, a concept developed by Rokeach, provide a possible explanation for these attitudinal differences, an investigation was made of the interaction between integrative orientation, dogmatism and attitude toward the first language group.

Specifically, it was postulated that integratively oriented dogmatics would have a less favorable attitude toward the first language group than integratively and non-integratively oriented non-dogmatics. Further, non-integratively oriented dogmatics would have the most favorable attitude toward the first language group. It was also postulated that integratively oriented subjects would have a less favorable

¹ Susanne M. Kosciielecki, masters thesis presented to the School of Graduate Studies and Research of the University of Ottawa, February 1979, vi - 100 p.

attitude toward the first language group than non-integratively oriented subjects.

A questionnaire, which included Gardner et al.'s Likert-type scale for measuring integrative orientation, Rokeach's D-Scale as a measure of authoritarianism and Gardner et al.'s semantic differential scale for evaluating English Canadians, was administered to 292 English-speaking subjects enrolled in a six-week summer French course offered by a university in a Francophone setting in Eastern Canada. Data were analysed using two-way analysis of variance.

The results did not support the interaction hypothesis. A significant main effect for integrative orientation was found. However, it was in the opposite direction predicted: integratively oriented subjects had a more favorable attitude toward the first language group than non-integratively oriented subjects. Based on this finding, it was suggested that a lack of a high level of satisfaction with the first language group may impede rather than motivate seeking out a closer association with a second language group. It is possible, however, that restricted distributions of dogmatism and integrative orientation which were observed among subjects, may also account for the lack of support for the research hypotheses.