

# ADDITIVE BILINGUALS: THE CASE OF POST-WAR SECOND GENERATION JAPANESE CANADIAN YOUTHS

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## ABSTRACT

This study examined the relations among bilinguality, academic achievement, and socio-psychological factors such as ethnolinguistic identity and beliefs, first language (L1) educational support, and interpersonal contacts. The participants were 42 second generation Japanese Canadian youths living in the metropolitan Toronto area. All had attended one particular Japanese Heritage Language School around the late 1970s; however the lengths of time they had attended Japanese language institutions varied. Students' bilingual proficiencies were assessed in both English and Japanese. Detailed questionnaires were administered to analyze socio-psychological factors. A strong relationship was found between Japanese oral and reading skills and both were related to a variety of ethnolinguistic identity, belief, and interpersonal contact variables. Japanese reading scores positively predicted both English reading and academic achievement (Ontario Academic Credit) performance. This suggests that L1 academic development enhances not only the development of L2 but also educational outcomes as a whole.

A great concern for parents is how their children are progressing in school. In general, parents who are first-generation immigrants worry a great deal about children's academic achievement in schools and their future success in society. Parents whose ethnic backgrounds are different from the mainstream society often have extreme anxieties. They wonder what kinds of linguistic, social, and psychological conditions will help children to be academically successful, and what kinds of school programs are best for them.

Other questions also arise: Is it desirable for children to maintain a first language at home which differs from the dominant language in their society? Does maintaining the first language retard the children's cognitive development and academic achievement? These quandaries have been especially frequent in the United States. Some educational policy makers and researchers have maintained that the "linguistic mismatch" between home and school causes minority students' academic difficulties (e.g., Imhoff, 1990). Others assert that the "time-on-task" principle or "maximum exposure" theory supports the maximization of dominant language exposure as critical for language minority students, without noting that usually there is little assistance or significant instruction available to minority children in order to help them obtain academic

competence in the language of instruction (Cummins, 1991a). In the United States., however, starting from 1991, two-way bilingual programs, with content and language arts instruction in two languages (English and another), have been established in some areas in response to these concerns.

Since higher education for linguistic-minority students is a doorway to professional status in society, the outcome of the educational process is expected to be adequate to meet the individual's needs for full participation in the larger social environment. At this time, a complex process of language development – influenced by a wide variety of sociological, cultural, linguistic, psychological, and educational factors–has contributed to the student's bilinguality and socio-psychological characteristics. Although the research literature has identified such processes, the existing models tend to focus on specific aspects (e.g., grammar, vocabulary) of language development for specific target groups. Within this research, there are few established models based on studies examining the Japanese-English bilingual development of linguistic-minority students who grew up in a dominant society learning English as a second language which often threatened their first language skills (Cummins & Danesi, 1990). In most of the literature, linguistic-minority students are labeled as “subtractive bilinguals.” Yet, that label may conceal a great deal of heterogeneity.

Within the policies that stress the common interests of diverse multilingual and multicultural populations in Canada, how have linguistic-minority students developed their Japanese-English bilinguality and their socio-psychological characteristics through Canada's education systems? In what ways does bilinguality influence their academic outcomes, and how does it relate to socio-psychological factors? In order to examine the questions, the author examines the relationships between bilinguality, academic achievement, and socio-psychological factors on post-war, second-generation Japanese-Canadian youths by taking into account social and individual factors. In particular, the author proposes the following research questions: For the subjects,

1. What is their level of development of English and Japanese bilinguality (in this case English and Japanese reading abilities and Japanese oral proficiency)?
2. What are their characteristics in terms of socio-psychological and institutional factors? How do they relate to students' bilinguality? The socio-psychological and institutional factors are divided into three components:
  - a. Ethnolinguistic Identity and Beliefs
  - b. First-Language Educational Support (Length of attendance at Japanese heritage/international language school during kindergarten to high-school time)
  - c. Interpersonal Contacts

- i) Proportion of Japanese speakers in network
- ii) Frequency of contacts with Japanese speakers
- iii) Quality of contacts with Japanese speakers
- iv) Stability of contacts with Japanese speakers
- v) Language (Japanese) spoken during the contacts with Japanese speakers
- vi) Length of visits to Japan

3. What are the relationships between bilinguality, academic achievement, and socio-psychological factors?

### **TOWARD “ADDITIVE BILINGUALS”**

Toukomaa and Skutnabb-Kangas (1977) stated that students who have achieved a high level of proficiency in both their languages—*additive bilinguals*—experience positive cognitive effects compared to the students who have attained native-like proficiency in one language only. On the contrary, students who experience less achievement in the second language (L2)—referred to as *dominant bilinguals*—show neither positive nor negative effects on cognition. Additionally, these authors found that dominant bilingual students are generally highly competent in their mother tongue, as is the case with monolingual students. Landry (1987) defined the phenomena of complete *additive bilingualism*<sup>1</sup> as (a) a high level of proficiency in both communicative and cognitive-academic aspects of L1 and L2; (b) maintenance of a strong ethnolinguistic identity and positive beliefs toward one’s own language and culture while holding positive attitudes toward the second language; and (c) the opportunity to use one’s first language without diglossia (p. 110). Landry’s definition is impressive, as it covers both the micro and macro level of bilingualism and accounts for the degree and type of bilingualism.

In Cummins’ (1986) Common Underlying Proficiency (CUP) Model he emphasizes the importance of first language development for minority students in achieving high levels of competence in their second language, especially in literacy-related academic abilities. He proposes that the literacy-related aspects of a bilingual’s proficiency in both languages are common or interdependent across languages in the Linguistic Interdependence Principle. Collier (1989) suggests that developing childrens’ cognitive foundation in a first language will eventually help the development of their second language academic skills. A large study involving 2,352 Latino elementary school children conducted by Ramirez (1992) indicated the efficacy of their first language development in facilitating the acquisition of their second language English skills. Beykont’s (1994) longitudinal study also showed similar results. For 139 American-born Puerto Rican students in grades 3 through 6, the results indicated a strong positive relation between Spanish and English reading development.

The question arises as to whether the linguistic differences influence students' foundation of bilingual conceptual abilities positively and negatively and vice versa. Can it simply be stated that Japanese reading comprehension ability and English reading-comprehension ability have a significant positive relationship?

Nakajima (1988) investigated the Japanese-language proficiency of Japanese immigrant high school students who were born in Canada. Their Japanese, cognitively-demanding language proficiency was found to be five to six years behind the average of students' proficiency in Japan. The report indicated some difficulties in the Japanese-language learning process for those students. The students sometimes tended to mix the two languages, and this trend could be seen especially in cases where the students did not have exposure to their parents' language at home or where they did not interact sufficiently in Japanese language with their parents or others.

In the case of a study of Japanese students (Cummins, Swain, Nakajima, Handscombe, Green and Tran, 1984; Cummins and Nakajima, 1987), there was a significantly high correlation between Japanese and English reading proficiency. These findings support the interdependence of L1 and L2 academic abilities even in Japanese, although the direction of causality is not clear. However, it can not be denied that most informants were collected from relatively high socioeconomic background and were what might be called "elite bilinguals." They are also temporary residents abroad and are expected by their parents to go to prestigious universities. The question may still be raised whether the link between first and second language development holds in all contexts and at all levels of competence.

Lambert's (1977) study supports the promotion of minority students' first language (mother tongue) development with high degrees of contextual support and active, cognitive task involvement so as to achieve high levels of competence in bilinguality. The community, home, and school environments can fulfill supportive, instrumental roles in the establishment of an educational environment with high contextual and high cognitive task involvement. Edwards (1988) and Edwards and Chisholm (1987) asserted that "identity can be maintained through periods of language shift" (Edwards & Chisholm, 1988, p. 203) and that the language-identity connection may be a prerequisite for continuing identity. From a much broader point of view on language shift and identity maintenance, many research studies confirm the point that identity remains longer than language in general. Lanca, Alksnis, Roeses, and Gardner's study (1994) investigated whether language preference and acculturation attitudes are related. Their findings indicated that language preference was associated with ethnic identity.

However, research in bilingual development deals with very complex issues; researchers and theorists have great difficulty in rendering a clear map of the phenomena and language outcomes. Landry and Allard (1991) advocate a combination of macro and micro approaches in bilingual research; these may give a more realistic picture of the bilingual phenomena, but they are also limited to particular aspects of bilingualism (e.g., degree and type) rather than more general processes.

The investigation of relationships between variables sometimes provides better explanations of phenomena. It might be expected, however, that not all variables important for one community might be important for another. Since Landry and Allard studies are focused on francophone students, it is interesting to examine the case of Japanese-Canadian students.

## METHODOLOGY

The main questions of the present study are framed in terms of bilinguality; bilinguality is considered as an individual state, and bilingualism is taken to be a social state. All the students participated voluntarily and provided background information such as birthplace, birthday, parents' time of arrival in Canada, type of schools attended in Canada, length of visits to Japan, length of attendance at Japanese language school, parents' socio-economic status, and assessment information such as grades in Ontario Academic Courses or Grade 13 Courses.

The students' Japanese oral proficiency was evaluated based on the outcomes of the interviews, which assessed their socio-psychological factors. Interviews were conducted and recorded by a native speaker in Japanese. In order to increase the validity, another qualified Japanese tester evaluated students' oral proficiency by listening to the recorded tapes. The oral-proficiency evaluation sheet and rating criteria were based on the assessment criteria of Oral Proficiency Test for Bilingual Students (CAJLE, 1993). In the test, there are a total of 12 criteria: interlanguage, pronunciation, vocabulary, grammar, listening comprehension, conversational role and strategies, function, appropriateness, fluency, non-verbal cues, discourse, and content.

To examine students' cognitive/academic language proficiency, which was expected to have strong association with students' academic achievement, Japanese and English reading tests were administered. The testing materials used were the *Japanese Language Proficiency Test Level 2 and 3*, published by the Japan Foundation (1991), and the Verbal Section (reading comprehension) of the Graduate Record Examination (GRE) published by the Educational Testing Service (1992) for the Graduate Record Examination Board. Commonly, *Test Level 1 (Advanced)* is used by universities in Japan in order to assess the language proficiency of foreign students who would like to enter universities in Japan; *Test Level 2 (Intermediate)* is prepared for students who studied Japanese as a foreign language for 600 hours or more; and *Test Level 3 (Beginner)* is prepared for students who studied Japanese for 300 hours.

Relevant portions of Feuerverger's (1989) *Canadian Ethnocultural Questionnaire* and Landry and Allard's (1987) questionnaire were used to examine socio-psychological factors. The questionnaire of Ethnolinguistic Identity and Beliefs which contains twelve questions and eleven open-ended questions, as well as the questionnaire of Interpersonal Contacts which includes five different sections with a total of 27 questions, were employed.

The analyses included descriptive statistics as well as Cronbach's reliability analyses, Pearson's correlation, factor (principal components extraction), and Cronbach's regression analyses. To carry out the quantitative analysis, a VAX computer system was used for entering and analyzing the data, using SPSS programs. This study, therefore, was an assessment of social, psychological, and educational variables among an intact group during a brief period of time. There were no interventions; the independent variables took on values according to a naturalistic, actual situation. The design therefore only allows determination of naturalistic associations at a given point in time, not causal connections, nor direction of causality, among variables.

The participants were 42 Japanese Canadian youths who live in the Metro-Toronto area. Their average age was approximately 20 years old. They had attended schools in the metropolitan Toronto area during weekdays; they also took part in Japanese Language Programs on Saturday mornings. All had attended the Japanese Heritage Language School X around the late 1970s, however, the length of time they had attended was varied. After attending School X, some students continued studying Japanese until high school or university level and some quit in the middle of the program. Their parents had immigrated to Canada at similar times during the late 1960s and early 1970s.

## **RESULTS**

### **STUDENTS' BACKGROUND**

All students had attended secondary schools in the metropolitan Toronto area. A total of 30 different secondary schools were reported by the participants. During secondary school programs, 2% of students attended French Immersion programs (from Kindergarten level) and 5% attended Extended French programs. At the time of the study, 91% of the student population were attending a university, college, or graduate school, and the remaining 9% were preparing to enter a university or college.

The time range of their parents' immigration to Canada was from 1965 to 1973. The range of their parents' socio-economic status was observed to be spread from Rank 10 to 487 for fathers (on a scale of 500 where low scores represent low socio-economic status) and from Rank 13 to 460 for mothers according to *the Revised Socioeconomic Index for Occupations in Canada* (Blishen and McRoberts, 1976). Interestingly, the fathers' socio-economic status was clustered at both higher and lower ranks but not in the middle while the mothers' socio-economic status was clustered more at the upper half of the

scale. Parents' educational backgrounds also varied. The result showed that approximately 90% of parents obtained more than a high school diploma. Most of the mothers completed two-year colleges and most of their fathers completed universities in the category of 'university/two-year college.'

Students were also asked how many months they had spent in Japan. The mean of length of visits to Japan was 6.93 months (S.D. = 6.65). However, 73.8% of the students visited Japan for six months or less during their entire life, indicating that many students spent very little time in Japan. The mean test score for the Ontario Academic Course was 80.31 (S.D. = 6.81) out of 100.

## **STUDENTS' BILINGUAL PROFICIENCY**

The inter-rater reliability coefficient for the Japanese oral proficiency test was Alpha = .9873, by using Cronbach's method, and Pearson's correlation between the two raters' markings was  $r = .9796$ . As high reliability was obtained between the two raters, the investigator used the first rater's marking as representative of students' oral proficiency results. For the Japanese oral proficiency test, the mean total score was 6.64 (S.D. = 2.36) out of 9 points. The results indicate that most students still maintain oral Japanese language very strongly.

The results of English reading scores were compared with a test norm of 5.74 (from a possible 11) based on scores of all those who have taken the test at GRE test centers between Oct. 1, 1985 and Sept. 30, 1991. By contrast, the mean of the present sample was 6.31 out of 11 (S.D. = 2.39) with a normal distribution. Compared with the GRE norm, 70% of the Japanese-Canadian students obtained higher scores. In addition, it should be noted that the GRE test is for those who completed the undergraduate university level and aspired to enter graduate school. Therefore, participants' English reading ability can be interpreted as relatively high in comparison to test norms.

By contrast, the Japanese reading test results indicated a negatively skewed distribution with two distinct groups: one group with very high scores and the other with quite low scores. The mean was 6.44 out of 11 (S.D. = 4.32). Although most students maintain a high level of oral proficiency in Japanese, the degree of Japanese reading ability varied considerably. The participants are divided primarily into two clusters, either at the low end or the high end of the scale. At the low end, 20% of students could not answer any questions, or just one question on the Japanese reading test.

## STUDENTS' SOCIO-PSYCHOLOGICAL FACTORS

### *STUDENTS' ETHNOLINGUISTIC IDENTITY AND BELIEFS*

In order to find out whether the 12 questions in the questionnaire can be categorized into meaningful groups, factor analysis (principal component extraction/varimax rotation) was first applied. The following five factors were found. The results of the questionnaire (low = 0 to high = 6) show that the students hold strong positive perspectives towards their heritage and multiculturalism.

*Table 1. Principal Components Factor Analysis of Ethnolinguistic Identity and Beliefs*

factor 1:	strong will of language/cultural heritage maintenance
	(mean=5.40, S.D.=0.64)
factor 2:	strong ethnic vitality
	(mean=2.33, S.D.=0.74)
factor 3:	strong ethnic group separation to dominant society
	(mean=2.94, S.D.=1.09)
factor 4:	strong political power of ethnic group
	(mean=3.72, S.D.=1.18)
factor 5:	positive attitude to multiculturalism
	(mean=4.81, S.D.=1.23)



### *L1 EDUCATIONAL SUPPORT*

The average length of attendance at Japanese language schools (K to OAC) was 10.18 years (S.D. = 2.92). The minimum attendance at Japanese school was 3 years and the maximum was 14 years in which students attended programs from the Kindergarten level up to OAC level. This figure shows that most students attended Japanese language schools for quite a long time period. This implies that those who attended schools for 10 years, got approximately 750 hours of Japanese language instruction.

### *INTERPERSONAL CONTACTS*

Table 2 below and on the next page displays the results from the Interpersonal Contact questionnaire (low = 0 to high = 9). Most of the students' contacts with their family members or relatives were pleasant (see the Quality of Contact section of the table). However, the pleasantness of contact with their friends, people who have participated in the same social and cultural activities, or neighbors, varied. Some students indicated "unpleasant" for their neighbors or persons who attended the same social and cultural activities. Most students still have contact with parents and some have contact with their friends who speak Japanese, but in general there is minimal maintenance of Japanese contacts. Some parents still maintain Japanese at home, but it tends to be a combination of English and Japanese spoken by parents. Other than with parents, students mostly speak in English or in English with occasional use of Japanese sentences and expressions.

*Table 2. Interpersonal Contact*

<b>1. Proportion of Japanese in network</b>	
a) Immediate family	(Mean=8.93, S.D.=0.34)
b) Cousins	(Mean=8.62, S.D.=1.53)
c) Aunts and uncles	(Mean=8.74, S.D.=1.40)
d) Friends you've had since your early childhood	(Mean=3.60, S.D.=1.43)
e) Neighbors who speak Japanese	(Mean=1.45, S.D.=0.77)
f) Students who speak Japanese in the same schools	(Mean=2.38, S.D.=0.91)
g) Japanese speakers in social and cultural activities	(Mean=3.00, S.D.=1.90)
<b>2. Frequency of contacts with Japanese</b>	
a) Family members or relatives who speak Japanese	(Mean=7.57, S.D.=2.14)
b) Friends who speak Japanese	(Mean=2.07, S.D.=1.55)
c) Neighbors who speak Japanese	(Mean=0.67, S.D.=0.85)
d) Students who speak Japanese in the same schools	(Mean=1.80, S.D.=1.57)
e) Japanese speakers in social and cultural activities	(Mean=1.69, S.D.=1.57)
<b>3. Quality (i.e. pleasantness) of contacts with Japanese</b>	
a) Family members or relatives who speak Japanese	(Mean=7.76, S.D.=1.39)
b) Friends who speak Japanese	(Mean=7.17, S.D.=2.34)
c) Neighbors who speak Japanese	(Mean=2.71, S.D.=3.34)
d) Students who speak Japanese in the same schools	(Mean=6.49, S.D.=2.58)
e) Japanese speakers in social and cultural activities	(Mean=5.31, S.D.=3.20)

<b>4. Stability of contacts with Japanese</b>	
a) Family members or relatives who speak Japanese	(Mean=7.74, S.D.=1.65)
b) Friends who speak Japanese	(Mean=4.45, S.D.=2.47)
c) Neighbors who speak Japanese	(Mean=1.49, S.D.=2.33)
d) Students who speak Japanese in the same schools	(Mean=2.98, S.D.=2.34)
e) Japanese speakers in social and cultural activities	(Mean=2.48, S.D.=2.39)
<b>5. Language variety spoken during contacts with Japanese</b>	
a) Family members or relatives who speak Japanese	(Mean=6.95, S.D.=1.79)
b) Friends who speak Japanese	(Mean=3.71, S.D.=2.28)
c) Neighbors who speak Japanese	(Mean=2.78, S.D.=3.47)
d) Students who speak Japanese in the same schools	(Mean=3.14, S.D.=2.28)
e) Japanese speakers in social and cultural activities	(Mean=3.05, S.D.=2.82)

***THE RELATIONS AMONG BILINGUALITY, ACADEMIC ACHIEVEMENT AND THREE SOCIO- PSYCHOLOGICAL FACTORS***

Before analyzing the relations among bilinguality, academic achievement, and three socio-psychological factors, the relations between bilinguality and three factors (students' year of birth, parents' socio-economic status, level of education completed by parents) were examined. The results found no significant correlations between them. It was generalized that all 42 participants could be treated as one group which would not be influenced by differences of their background. Further, as for variables of interpersonal contacts, only the variables that showed significant correlations with variables of bilinguality were used. From the results of Pearson's correlation (Table 3) and Cronbach's stepwise regression analyses (Table 4) of the relationships among bilinguality, academic achievement, and socio-psychological factors, the following observations were made.

*Table 3. Correlation Coefficients among Bilinguality, Academic Achievement and Socio-Psychological Factors*

	ORL	ER	JR	OAC	F1	F2	F3	F4	F5
ORL	1.00								
ER	.18	1.00							
JR	.74**	.21	1.00						
OAC	.40*	.30	.42*	1.00					
F1	.32	-.04	.39*	.22	1.00				
F2	.35*	-.13	.25	.07	.12	1.00			
F3	.09	-.14	.20	-.16	.09	.19	1.00		
F4	.23	-.05	.26	.37*	.13	.32	-.11	1.00	
F5	.03	.14	.14	.25	-.01	.16	-.01	.20	1.00
B1D	.03	-.40*	-.00	-.29	.11	.49**	.36*	.26	-.01
B1F	.28	-.17	.36*	.09	.23	.32	.33	.37*	.35*
B2C	-.06	-.36*	.04	-.20	-.18	.23	.22	.03	-.12
B2D	.21	-.19	.38*	-.21	.38*	.14	.30	.04	-.07
B3A	.39*	-.12	.32	.37*	.42*	.61**	-.09	.31	.06
B3B	.47**	.19	.41*	.40*	.19	.18	-.03	.08	.11
B4C	-.06	-.47**	.10	.01	-.21	.08	.13	-.04	.09
B4D	.35*	-.16	.45**	-.19	.23	.29	.33	.15	-.12
B5B	.37*	-.32	.23	-.15	.19	.21	.29	.19	-.20
HR	.06	-.24	-.06	.08	.07	.07	.01	.04	-.06
VIS	.35*	-.19	.18	-.02	.14	.45**	.08	.10	.07
**P<0.01, *P<0.05									



*Table 4 . Stepwise Regression of Bilinguality, Academic Achievement and Socio-Psychological Factors*

Variable(s)	r	R square	Rsq change	Beta
Dependent Variable: ORL				
1. JR	0.74	0.55	0.55	0.74
Dependent Variable: ER				
1. B4C	-0.47	0.22	0.22	-0.52
2. B5B	-0.32	0.33	0.11	-0.42
3. JR	0.21	0.45	0.12	0.36
Dependent Variable: JR				
1. ORL	0.74	0.55	0.55	0.74
Dependent Variable: OAC				
1. JR	0.42	0.18	0.18	0.45
2. B4D	-0.19	0.36	0.18	-0.51
3. B3B	0.40	0.44	0.08	0.32
4. F4	0.37	0.52	0.08	0.30

ORL:	Japanese oral proficiency
ER:	English reading ability
JR:	Japanese reading ability
F1:	strong will of language/cultural heritage maintenance
F2:	strong ethnic vitality
F3:	strong ethnic group separation to dominant society
F4:	strong political power of ethnic group
F5:	positive attitude to multiculturalism
B1D:	proportion of friends in their network who speak Japanese
B1F:	proportion of friends in their school who speak Japanese
B2C:	frequency of contacts with neighbors who speak Japanese
B2D:	frequency of contacts with friends in their school who speak Japanese
B3A:	quality of contacts with family who speaks Japanese
B3B:	quality of contacts with friends who speak Japanese
B4C:	stability of contacts with neighbors who speak Japanese
B4D:	stability of contacts with friends in their school who speak Japanese
B5B:	Japanese language use with friends who speak Japanese
HR:	first-language educational support (the length of attending Japanese language schools)
OAC:	students' academic achievement
VIS:	length of visits to Japan

It is clear that Japanese oral proficiency and Japanese reading proficiency are interdependent. There was not a high correlation between Japanese reading proficiency and English reading proficiency. However, the Japanese reading proficiency variable was found significantly as the third predictor by Cronbach's stepwise regression analysis on English reading proficiency (Beta = 0.36). The variables of stability of contacts with neighbors who speak Japanese and

Japanese language use with friends who speak Japanese were distinctive negative variables for English reading test results. It may be interpreted that the Japanese reading proficiency variable is masked under those two variables of interpersonal contacts. Predictors for students' academic achievement were Japanese reading proficiency, strong stability of contacts with friends in their school who speak Japanese (negatively), quality of contacts with Japanese speakers with friends who speak Japanese, and strong political power of ethnic group.

The results indicate that the Japanese reading proficiency variable contributes significantly and positively to other variables; in other words, the first language reading proficiency influences both students' English reading proficiency and overall academic success.

## DISCUSSION

A significant relationship between the results of the Japanese and English reading tests were found only in an unidirectional way, from Japanese reading to English reading abilities. This supports Cummins' CUP Model and Linguistic Interdependence Hypothesis, in particular his statement, "... in principle, transfer can occur both ways between L1 and L2 or minority and majority languages, in practice we generally see only unidirectional transfer from the minority to the majority language" (Cummins, 1991b, p. 82). The poor performance of many students on Japanese reading tests presumably influenced by instructional and social factors, possibly resulted in a lower correlation between the English and Japanese reading test scores. Although the correlation between English and Japanese reading was not significant, Japanese reading emerged as a significant predictor of English reading in the regression analyses. The correlation between these variables was masked by the intervening effect of Japanese contact and use variables which related negatively to English reading and positively to Japanese reading.

There were strong correlations between strong ethnic vitality and Japanese oral proficiency, between strong will of language/culture heritage maintenance and Japanese reading abilities, and between academic achievement and strong political power of ethnic group.

There were high correlations between students' length of attendance at Japanese language school and quality of contacts with family/friends who speak Japanese. However, there was no significant correlation between students' Japanese language proficiency (in oral and reading abilities) and first-language educational support (students' length of attendance at Japanese language school). These findings are opposed to Landry and Allard's (1991) results for grade-12 francophone students in the Maritime Provinces of Canada. Their work demonstrated the significance of educational support for additive bilingualism in general and for L1 cognitive-academic proficiency in particular.



The data in the present study show that although students attended schools for 10.18 years (mean, S.D. = 2.92), and received approximately 750 hours of Japanese language instruction, some obtained very low (even zero) scores in the Japanese reading test. (This test is commonly used for students who have 300-600 hours Japanese language instruction). These results can be interpreted as indicating that English is the participants' dominant language that they use in most social and institutional situations. By contrast, the maintenance of Japanese, in particular literacy (Japanese reading), which requires a lot of effort to master, is rather difficult for them as compared to acquiring oral Japanese language. Further, it should be noted that the investigator was notified by the school principal that School X's heritage language program was very unstable at the time due to frequent changes of instructors. Thus, these particular findings should not be generalized to current heritage language programs. At the time when the students attended School X, students' Japanese language development was mostly dependent on parents' attitude and instructors' teaching quality.

However, in spite of these situations, the study revealed important positive findings with respect to students' attitudes toward multiculturalism, bilinguality, and the student's intention to educate the next generation with the advantage of Japanese heritage language. These findings suggest the need to review the role of Japanese heritage language programs, and to determine the best approach for heritage language maintenance. At the same time the relation between school and parents also needs to be reconsidered. Isajiw (1985) has asserted that

(w)hat is needed are schools that support parents instead of parents who support schools. Where the goal is [for] children [to] know the language, schools must develop programs which assist parents to speak Ukrainian [minority language as L1] to their children." (p. 229)

The more students explore their interpersonal network for use of Japanese language, and the more frequently they use Japanese with friends and parents both qualitatively and quantitatively, the more they augment their ethnic vitality, which promotes their competency in speaking Japanese. These phenomena are consistent.

The average duration of students' visits to Japan was 6.93 months; 73.8% visited Japan for 6 months or less. The results imply that those who have not visited Japan frequently, but maintained good Japanese communicative skills, are students who possess significant interest in Japan. Moreover, for Japanese reading abilities, quality of contacts with friends who speak Japanese, and proportion, frequency, stability of contacts with friends who speak Japanese were correlated significantly.

The results show the necessity of good-quality Japanese language use between peers. Programs with an educational environment that encourage communication among peers, such as the International Language Programs, can be expected to contribute to students' Japanese literacy development, as well as to their Japanese oral proficiency. As Labrie and Clément (1986) stated, "The relationship between the affective and self-confidence processes is

dependent on the frequency and quality of inter-ethnic contacts” (p. 270). In this study, both Japanese oral and reading abilities depend on the stability and quality of interpersonal contacts with speakers of the ethnic language, especially with friends.

This emphasizes that first-language development requires not only a surface level of interpersonal communicative exploration but also a more cognitively demanding exploration, which includes students’ cognitive approach toward their “ethnic” language. Consequently, the finding is supported by the results of English reading test scores which were negatively correlated to proportion of friends in their network who speak Japanese, and frequency and stability of contacts with neighbors who speak Japanese. Stable use of the Japanese language, in particular with neighbors and friends who speak Japanese, relates to negative development of English-reading abilities.

In short, it may be concluded that both quantitative and qualitative levels of interpersonal contacts are related to Japanese oral proficiency and Japanese reading abilities, but quantitative level of use, in particular, is negatively related to the development of English-reading abilities. In order to develop balanced additive bilinguality in such circumstances, promoting literacy development in Japanese (the first language) is crucial. Literacy development in L1 is likely to be enhanced by a variety of factors related to identity and language use.

## CONCLUSION

Cummins’ Common Underlying-Proficiency Model, in particular the unidirectional transfer from L1 to L2 language, was supported in this study. In addition, academic achievement is positively related to Japanese reading abilities, quality of contacts with friends who speak Japanese, and strong political power of the ethnic group. This variable is also negatively related to stability of contacts with friends in their school who speak Japanese. Additive bilinguals achieved academically at a rather higher level than the subtractive bilinguals did. Thus, reinforcement of the first language, especially of cognitive-demanding factors at home and between peers, is extremely important if linguistic-minority children are to develop an additive form of bilingualism. The interplay of students’ “identity and beliefs” and “interpersonal contacts” taken together contributes to students’ bilingual development.

This present study indicates that first-language maintenance and development play a very important role in students’ bilingual development, although extremely frequent usage of the first language may have a negative impact on the second language/dominant language development and further academic achievement. These results may explain and fill the gap in the discussion between “maximum exposure” theorists and “L1 promotion and maintenance” theorists.

This study has attempted to provide a deeper understanding of the relations among bilinguality, academic achievement and socio-psychological factors of post-war second generation Japanese-Canadians in a multilingual and multicultural context. The findings of the study provide room for optimism in several respects. First, a significant proportion of the sample had developed an additive form of bilingualism showing that this outcome is possible despite the well-documented pressures towards language shift for minority language students. Second, although there was a significant relationship between academic development in L1 and L2, many students whose L1 academic development was weak still managed to perform credibly on L2 academic measures. In other words, loss of L1 and weak identification with L1 culture does not inevitably reduce L2 academic and cultural development. Finally, L1 development, especially L1 academic development enhances not only the development in L2 but also educational outcomes as a whole.

Under the circumstances of Canada's present policies, the students generally seem to support multiculturalism and the maintenance of their ethnic community. In order to develop students' *additive* bilinguality, cooperation among parents, educators, administrators, and political leaders is essential since this developmental process will not only lead in a positive direction for students themselves, but also for Canadian society at large.

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## NOTES

<sup>1</sup> The main questions of the present study are framed in terms of *bilinguality*; *bilinguality* is considered as an individual state, and *bilingualism* is taken to be a social state.

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