

Media Effects on Ethnic Identity Among Linguistic Majorities and Minorities

A Longitudinal Study of a Bilingual Setting

RICHARD CLÉMENT
SUSAN C. BAKER
GORDON JOSEPHSON
University of Ottawa
KIMBERLY A. NOELS
University of Alberta

Research on media effects has documented the media's influence on beliefs and behavior while cross-cultural psychology has documented the effects of the language used in communication on identification with the ingroup and the outgroup. Media usage in the outgroup language should, therefore, affect identification patterns. This research investigates media effects in the acculturation process through a longitudinal design involving minority and majority group members evolving in the same bilingual environment. Subjects were Francophone students (N = 235) from minority and majority settings attending a bilingual (French–English) university. Results revealed that majority students increased significantly written and public media consumption in English whereas minority students increased French written media consumption. Furthermore, increased usage of English written and audiovisual media was related to identity changes in favour of the Anglophone group. Finally, path analysis emphasized the mediating role played by English language confidence and the determining role of ethnolinguistic vitality.

The media play a central role in disseminating norms and values (Barnett & MacPhail, 1980). Furthermore, the kind of information received from the media has implications for how we view our own culture, as well as other cultures. Barnett and Lee (2002; see also Cerulo, Ruane, & Chayko, 1992), in fact, argued that mediated communication is becoming the most important form of communication between cultures. Buttressing their proposition are the many empirical investigations supporting the existence of intercultural mass media effect on

Richard Clément, Susan C. Baker, and Gordon Josephson are in the department of psychology at the University of Ottawa. Kimberly A. Noels is in the department of psychology at the University of Alberta. This research was supported by a research grant from the Social Sciences and Humanities Research Council of Canada, awarded to the first author and approved by the research ethics board of the University of Ottawa. Correspondence concerning this article can be sent to Richard Clément, University of Ottawa, Ottawa, ON, Canada, K1N 6N5; e-mail: rclement@uottawa.ca.

individual perceptions, attitudes, and habits (Korzenny & Ting-Toomey, 1992; Varan, 1998; Ware & Dupagne, 1994). Under cultivation (e.g. Gerbner, 1969) and cultural erosion (Varan, 1998) theories, some have even argued that exposure to media from other cultures may promote cultural change.

The process of cultural change resulting from the contact between two groups is known as acculturation in the intercultural contact literature (Berry, 1990, 1999; Chun, Organista, & Marin, 2003; Gudykunst, 2002; Redfield, Linton & Herskovits, 1936). Cultural changes are multifaceted; however, one key component has been that of the degree of individual identification with the groups in contact (Phinney, 2003). At this point, little is known of the effects of long-term intercultural media usage on group identification. The present study, positioned at the intersection of cross-cultural psychology and communication studies, is therefore a longitudinal investigation of the acculturative effects of second language (L2) media. In addition to including a wide array of types of media, it provides a comparison of their impact on ethnic minority and majority groups sharing the same environment.

The Media and Acculturation

Psychological approaches to acculturation research have been concerned mainly with the processes of psychological adaptation and attitude change resulting from direct intercultural contact (Berry, 1990, 1999; Castro, 2003; Chun, Organista, & Marin, 2003). By examining the effects of exposure to the mass media, however, it becomes possible to go beyond the more immediate context to consider the larger scale influence of intercultural contact. In their analysis of the linguistic landscape (language-related objects that mark the public arena), for example, Landry and Bourhis (1997) were primarily referring to the role of public and private signs to which they attributed informational and symbolic functions. They report that those individuals perceiving a linguistic landscape mostly in their language would also show greater ethnolinguistic vitality and usage of their language. The factor structure of contact variables reported by these authors, however, identifies the media as a subcomponent of the linguistic landscape. It is therefore possible that the acculturating role attributed to the language of the signs may also be played by the language of the media in terms of defining the cultural polarity of the environment.

As a further contribution to this area, mass media research has found that media exposure and consumption does influence the acculturation process, but that research is limited in its scope. Media consumption measures, for example, have been restricted to television and newspapers (Payne & Peake, 1977; Barnett, Oliveira, & Johnson, 1989; Chaffee,

Nass & Yang, 1990; Driedger & Redekop, 1998), and there has been inconsistency in the operational definition of acculturation. For example, in their study of the effects of American programming on youths in Iceland, Payne and Peake (1977) defined acculturation in terms of attitudes (sadness, fear or anger) toward the U.S. Barnett et al. (1989) defined acculturation through a measurement of media preference and use among Belizean high school students. Driedger and Redekop (1998) looked at the impact of modern society on ethnic identity among Mennonites in Canada and define acculturation as the involvement and awareness beyond the Mennonites' traditional cultural boundaries. Finally, in their study of Korean Americans' knowledge of American politics, Chaffee et al. (1990) refer to political socialization when defining acculturation. Furthermore, studies examining the relationship between media and acculturation have failed to take into account the long-term effects of media consumption as well as any effects of the linguistic context. In spite of the evidence supporting the notion that the language chosen for communication may have an effect on acculturation as a function of its relative social importance (Clément, Noels, & Deneault, 2001; Hecht & Baldwin, 1998), these aspects have not been integrated in media effects research. Finally, this and other research (e.g., Caron, 1977; Robinson, 1972; Beattie, 1967; Johnson, 1996; Shah, 1991) has given no attention to what seems to be at the fulcrum of acculturation, namely ethnic identity change.

Situated Ethnic Identity

Ethnic identity refers to an individual's subjective feelings of belonging to a particular ethnic group (Leets, Giles, & Clément, 1996; Phinney, 1990, 2003). The situated identity approach (Alexander & Beggs, 1986; Clément & Noels, 1992; Weinreich, 1991) views ethnic identity in terms of many self-representations. From the situated perspective, ethnic identity is thought not to be constant but rather situationally bound, such that a person may slip in and out of an ethnic group membership depending on the demands of the situation (Collier & Thomas, 1988; Okamura, 1981). Further, like many current approaches to acculturation (see, for review, Gudykunst, 2002; Phinney, 2003), Clément and Noels (1992) assume that identity is bidimensional in that identification with the in-group and outgroup are assessed separately from one another.

Language is of central importance to identity (Abrams, O'Connor, & Giles, 2002), because through language, we negotiate and share our identity with others. It has been argued that language can work to prime either the original or host cultural identities (Hong, Morris, Chiu, & Benet-Martinez, 2000). Specific communication practices can, however, evoke identity variations as well. For instance, using a second language often entails taking on attitudinal and cultural values, which can cause

identity to change. The use of the second language, therefore, opens the door to situations where there may be a negotiation of identity between interlocutors. Indeed, research has found that we adjust our identity in certain situations to accommodate another and that this adjustment is often evidenced through language (Abrams et al, 2002). In the context of media effects, Kim (1984) argued that, although the use of ethnic media (i.e. the media of the ingroup) is beneficial to the maintenance of the ingroup identity, it is the use of the host or L2 media that will have a more positive impact on the actual acculturation process (see also Shibutani & Kwan, 1965).

Yaple and Korzenny (1989) have further argued that the extent and effects of ethnic media usage, for example, are likely to be influenced by certain contextual factors. One contextual characteristic in particular that has been found to have an impact on identification patterns is ethnolinguistic vitality. Ethnolinguistic vitality refers to a group's social, economic and demographic strength (Giles, Bourhis, & Taylor, 1977; Harwood, Giles, & Bourhis, 1994). The extent to which a group benefits from institutional support (e.g., political or educational) contributes to its vitality. This is reflected in the state of minority group members who are often less represented demographically and institutionally than the majority group. Noels and Clément (1996) have shown that intergroup frequency and quality of contact will differentially affect minority and majority group members. Specifically, whereas minority group members will identify more with the other group and less with their own group as a result of more frequent and pleasant contact, majority group members will not show the decline in ingroup identification.

Majority group members enjoying greater demographic and institutional support are less likely to feel the identity impact of L2 media for at least two reasons. First, given the value afforded their first language, they should be less interested in using the L2 media when given the chance to do so. Second, given their firmly supported ethnolinguistic vitality, they should be more resistant to the loss of their L1 identity over a period of time. In contrast, minority group members should show more usage of the L2 media (Hypothesis 1) and, as a result, more accentuated depletion of their L1 identity and enhancement of their L2 identity (Hypothesis 2).

L2 Confidence

The above gives a crucial role to the language of the media in influencing acculturation patterns. Indeed, several authors have argued that ability in the dominant group's language is an important factor in acculturation (Kim, 1990; Lee & Tse, 1993). A priori, the degree of competence in the second language should be important in influencing the

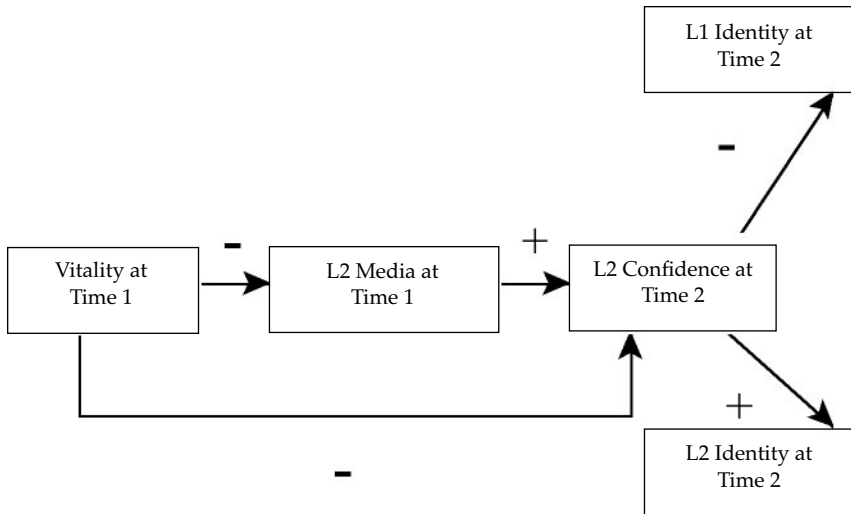


Figure 1. Conceptual Model of the Mediatorial Role of L2 Confidence In L2 Contact and Ethnic Identification

identity outcome of exposure to L2 media. Within the area of L2 acquisition, however, a framework has been developed that has given central importance, not so much to the development of competence but rather to the development of linguistic confidence (Clément, 1980, 1986). Second language confidence refers to the subjective feeling of being able to effectively communicate in the second language in situations where such communication is required. There are two components to L2 confidence. The first component is affective and refers to the anxiety experienced in L2 communication. The second component is cognitive and refers to self-evaluations of L2 skills. The findings of Clément, Dörnyei, and Noels (1994) indicated a strong relationship between the two components and demonstrated the benefit of combining them into the single construct of L2 confidence.

Research into the issue of the relationship between contact, L2 confidence, and identity has shown that L2 confidence mediates the influence of frequency and quality of contact with members of the outgroup on identification profiles. Noels, Pon, and Clément (1996), for example, found that L2 confidence relates to an increased identification with the L2 group and to a decrease in identification with the L1 group. Generalizing from that research, it would be expected here that the effect of media usage, as a form of contact with the L2 group, on identity would

be mediated by L2 confidence (Hypothesis 3, see Figure 1). Furthermore, if media usage is determined by social context, ethnolinguistic vitality should itself be a precursor of usage. Previous research has shown that the frequency of contact with members of the L2 group has a direct positive impact on L2 confidence (Clément, Baker, & MacIntyre, 2003; Noels et al., 1996). Thus, we argue here that ethnolinguistic vitality, as it encompasses demographic representativeness of the ingroup, may also have a direct impact on L2 confidence.

In the context of this specific study and as depicted in Figure 1, ethnolinguistic vitality would determine L2 media usage at time 1, resulting at time 2 in increased L2 confidence, reduced L1 identification, and enhanced L2 identification.

The Present Research

The first goal of the study is to examine the differential evolution of the two groups across time and media type with respect to L2 media consumption:

H1: It is expected that L2 media consumption will be more popular among minority than among majority group members.

Next, the study explores the relationship between change in media usage over time and changes in identity:

H2: It is hypothesized that as participants move toward greater use of L2 media, they will increase their identification with the L2 group.

The final goal of the present study is to test the mediational model described above.

H3: Ethnolinguistic vitality has a direct effect on both the extent of L2 media usage and L2 self-confidence, which will ultimately predict identification profiles to the first and second language group.

METHOD

Locale

The present study was conducted at the University of Ottawa, a bilingual institution situated in the Canadian national capital, in the province of

Ontario. A few kilometres away from Gatineau in the province of Québec, the University caters to Anglophones and Francophones, its charter promoting both individual bilingualism and intergroup contact. It remains, however, that, Ontario's official language is English whereas French is the sole official language of Québec.

In addition to the usual complement of English language media, the Ottawa–Gatineau region provides ready access to French television and radio stations, French magazines, and French newspapers. To a slightly less extensive degree, there are also theatres that provide some French films and bookstores that have French volumes. Finally, artistic institutions and recreational facilities are all administered in a bilingual fashion.

Participants

Participants in year 1 of the study consisted of 235 students (65 males, 168 females) with an average age of 21.17 years, enrolled in their first year of study at the University of Ottawa. Of those 235 students, 120 (32 male, 87 female and 1 participant who did not indicate their gender) could be reached to participate in year 2. The average age of these 120 participants was 20.6 years. All were residents of either Ontario or Québec, and all had French as their mother tongue. A total of 49 were from Québec (the majority group) and 71 from Ontario (the minority group).

The participants in this study were all Francophones and would all be thought of as belonging to a minority linguistic group in the Ontarian context, where English is the majority language. The participants, however, differed in that some of them originated from Ontario, a situation of where they would be a minority (Franco-Ontarians make up 6% of Ontario's population) while others originated from Québec, where they belong to the majority (Québécois make up 89% of the population of Québec). In the present context, therefore, the terms minority and majority are referring to one group's position in relation to the other as determined by the linguistic composition of their province of origin. As the status of the French language is greater in Québec, it is possible to test the influence of ethnolinguistic status by following these two cohorts through their first year of university.

Materials

The participants were required to answer a questionnaire developed by Clément and Noels (1992), which consisted of eight separate scales of measurement followed by a short biographical section. The three instruments utilised in this investigation are as follows. Cronbach alphas from the first testing session are indicated in parentheses.

L2 Media Usage

A total of 11 items relating to media usage were presented, including television, radio, films, theatre, newspapers, billboards, advertising flyers, books, magazines, road signs, and music, preceded by the request: "Describe the kind of media to which you are exposed." Participants were asked to indicate on a 7-point scale (1 = *mostly French*; 7 = *mostly English*) the extent to which a given form of media was consumed in English. A low score represented a greater consumption of French (L1) media relative to English (L2) media, and a high score indicated greater consumption of English (L2) media relative to French (L1) media ($\alpha = .86$).

Situated Ethnic Identity

To assess situated ethnic identity, 22 descriptions of everyday situations were presented, followed by two 5-point scales in which respondents rated the degree to which they feel Francophone, Anglophone, both, or neither when engaged in a particular situation (see Clément & Noels, 1992). The final list of 22 situations was generated through a preliminary investigation in which 100 students were asked to list activities they often engaged in. After eliminating redundant or improbable situations, 22 descriptions were retained. Examples are "when I am with my friends, I feel . . ." and "when I participate in cultural activities, I feel . . .". The first scale assessed the degree of identification with the Anglophone group (0 = *not at all Anglophone*; 4 = *very Anglophone*; $\alpha = .95$), and the second assessed the degree of identification with the Francophone group (0 = *not at all Francophone*; 4 = *very Francophone*; $\alpha = .92$). This measure was developed in the examination of Francophone or Anglophone identity of students at the University of Ottawa. The validity of this situated approach to identity is evidenced in Noels and Clément (1996), who found that first language group identity is consistently high in groups of differing status (majority, minority) but second language identity varies according to the vitality of the group. Specifically, the minority group tends to exhibit greater second language identity than the majority group.

L2 Confidence

This index was computed from the addition of the scores obtained for three scales which have been found to define the confidence construct (Clément & Kruidenier, 1985): (a) confidence speaking English ($\alpha = .84$), (b) anxiety when speaking English ($\alpha = .86$), and (c) self-evaluation of English proficiency ($\alpha = .88$). The L2 confidence measure was a composite of the three scales given the high correlations between confidence and

anxiety ($r = .67$), confidence and self-evaluations ($r = .80$), and anxiety and self-evaluations ($r = .68$).

Procedure

Participants were tested once during their first year of study and then again 1 year later. At both the first and second testing times, questionnaires were administered during the participants' regular class time. They were assured that their participation in the study was voluntary and that their responses would be anonymous and not affect their standing at University of Ottawa.

RESULTS

Four sets of analyses were conducted on the data. First, as a preliminary step to reduce the number of variables associated with media usage, a factor analysis assessed the underlying dimensions of the English media items. The purpose of the second analysis was to compare the amount of L2 media consumption of minority and majority Francophones over time (H1). The third analysis examined the influence of L2 media usage on both L1 and L2 identity (H2). The final analysis involved a mediational model examining the role of L2 confidence in the formation of identity through L2 media contact (H3).

Structure of English Media Items

Factor analysis was conducted on the 11 media types to isolate relatively homogeneous clusters (Table 1), using the first year data. The confirmatory factor analysis was performed on the covariance matrix using EQS 5.7b (Bentler, 1998),¹ which resulted in four factors depicting the written media (newspapers, magazines, books, and plays), the public media (road signs, billboards, and advertising flyers), audio media (radio and recorded music) and audiovisual media (television and film).² Indices revealed a good fit of the solution to the data [$\chi^2(35) = 55.89$, $p = 0.01$, CFI = .98, RMSEA = 0.05, GFI = 0.96].

Differential Media Usage

The first goal of this study (H1) was to examine differences between majority and minority Francophones' consumption of English media relative to French media. To accomplish this goal, a three-way repeated measures analysis of variance was performed. The between subjects factor was status (majority versus minority) and the within subjects factors were media type (written, public, audio, and audiovisual) and the time

TABLE 1
Factor Loadings for Confirmatory Factor Model of Media Usage

<i>Measure variable (Media usage)</i>	<i>Standardized factor loading</i>	SE
Written media		
Newspapers	.71	—
Magazines	.79	.09
Books	.58	.10
Plays	.57	.11
Public media		
Road signs	.71	—
Billboards	.82	.09
Advertising flyers	.85	.11
Audio media		
Radio	.86	—
Music	.73	.07
Audiovisual media		
Television	.85	—
Movies	.64	.07

of testing (year 1 versus year 2). The dependent variable was the amount of English media consumed relative to French media. The results show a significant main effect for status, $F(1, 118) = 22.58, p < .001, \eta^2 = .16$, with the minority group ($M = 4.95$) using significantly more English media than the majority group ($M = 4.07$). There was a significant main effect for media type, $F(3, 354) = 56.34, p < .001, \eta^2 = .32$, where English audiovisual media ($M = 5.32$) was used significantly more than English written ($M = 3.70$), public ($M = 4.6$), and audio ($M = 4.4$) media. A significant interaction between status and media type, $F(3, 354) = 7.45, p < .001, \eta^2 = .06$ was also obtained. Tukey's posthoc analysis revealed that the minority group used significantly more English written $q [(118) = 5.62, p < .05]$, public [$q(118) = 4.30, p < .05$] and audiovisual media [$q(118) = 3.86, p < .05$] than the majority group. There was also a significant three-way interaction involving status, media type and time of testing, $F(3, 354) = 3.10, p < .05, \eta^2 = .03$ (Figure 2).

Results of Tukey's HSD posthoc analysis revealed that, over time, the majority group significantly shifted to the usage of English public [$q(118) = 3.06, p < .05$] and written media [$q(118) = 2.89, p < .05$] exposure. There was no significant change in the usage of the other two media types from year 1 to year 2. Likewise, over time, the minority group significantly increased their relative French written media consumption [$q(118) = 3.12,$

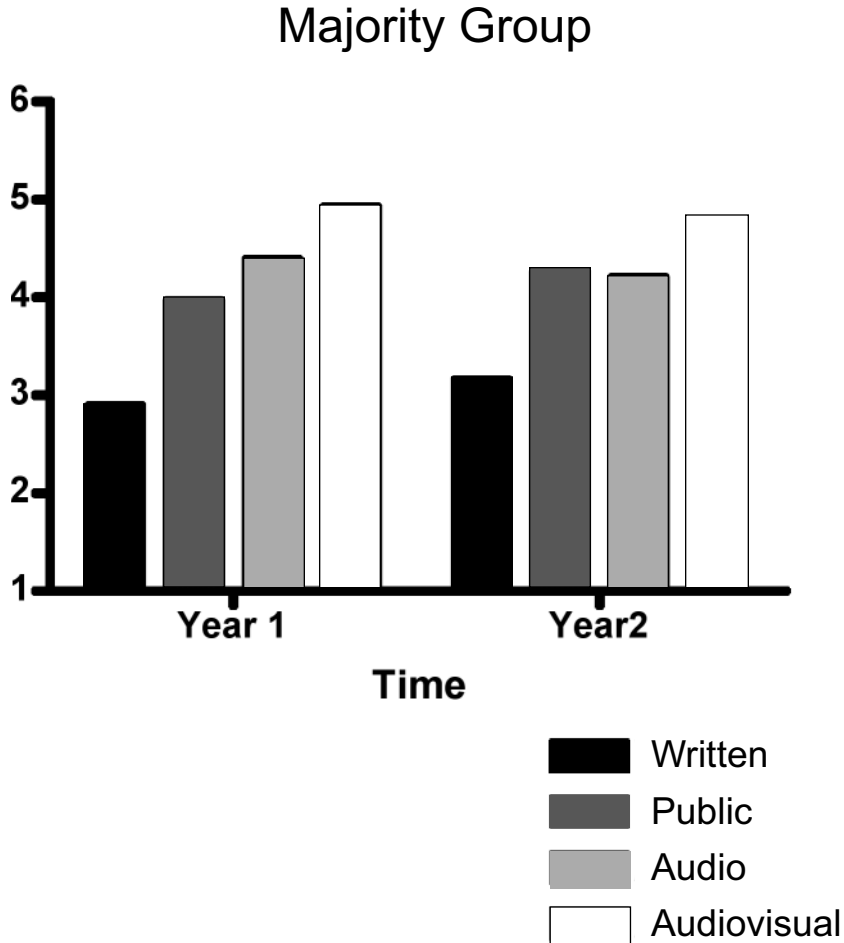


Figure 2a. Change In L2 Media Usage as a Function of Status, Media Type, and Time

$p < .05$]. There was no significant change in the other three media types from year 1 to year 2.

Identity Variations

In order to assess the effects of media usage on identity (H2), four 3-way repeated measures analyses of covariance, one for each media type, were conducted on the data. Separate analyses were warranted because of the relative independence of the media types in the previous factor

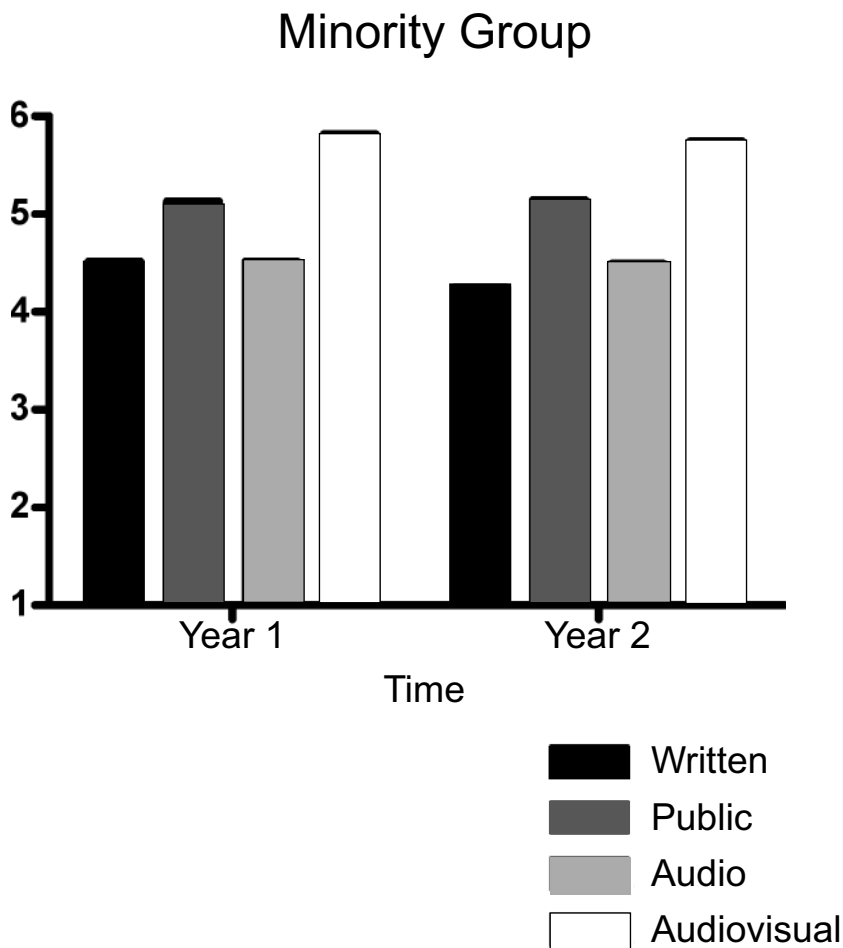


Figure 2b. Change In L2 Media Usage as a Function of Status, Media Type, and Time

analysis, and because it was not deemed appropriate to hypothesize common patterns for all media. For each analysis, participants were classified as either having evolved over time towards more usage of the French version of the specific media type or having evolved towards more usage of the English version of that media type. This was determined by subtracting time 1 media usage from time 2 media usage. If the resulting media usage score was positive, the participant was said to have evolved toward a greater use of English media. Conversely, if the score was negative, the participant evolved toward a greater use of

French media. Thus, direction of evolution constituted the first between subjects factor. The analysis also included status (minority versus majority) as the second between subjects factor. The within subjects factor was the reference group targeted in the identity index (Francophone versus Anglophone). The analysis was conducted on year 2 identity indices, using the corresponding year 1 index as the covariate.

Written Media

A significant main effect was obtained for the target group, $F(1, 115) = 9.08, p < .01, \eta^2 = .07$, with the participants identifying more to the Francophones ($M = 3.91$) than to the Anglophones ($M = 2.43$). A significant two-way interaction was also obtained between direction of change in media usage and target group, $F(1, 115) = 17.26, p < .001, \eta^2 = .13$, (Figure 3a). Tukey's HSD tests of simple main effects show that direction of media usage change had no significant effect on Francophone identification [$q(2, 115) = 2.23, p > .05$]. Those who evolved towards more usage of English, however, showed a significant increase in their identification to Anglophones [$q(2, 115) = 5.42, p < .05$].

Public Media

A significant main effect was obtained for target group, $F(1, 115) = 7.20, p < .01, \eta^2 = .06$. The students identified significantly more with Francophones ($M = 3.91$) than with Anglophones ($M = 2.41$). There was no significant two-way interaction between direction of change in media usage and target group, $F(1, 115) = 3.91, p = .05$, (Figure 3b).

Audio Media

Results of the analysis of covariance showed no significant interaction between direction of change in media usage and target group, $F(1, 115) = 0.73, p = .39$, (Figure 3c). There was, however, a significant main effect of target group, $F(1, 115) = 9.86, p < .01, \eta^2 = .08$. Again, there was significantly higher identification with Francophones ($M = 3.92$) than with Anglophones ($M = 2.41$).

Audiovisual Media

A significant main effect of target group was obtained, $F(1, 115) = 12.08, p < .001, \eta^2 = .09$. The students identified significantly more with Francophones ($M = 3.91$) than with Anglophones ($M = 2.38$). There was no significant two-way interaction between direction of change in media usage and target group (Figure 3d). Borderline significance [$F(1,115) = 3.79, p = .054$], however, suggests a pattern similar to that of the written

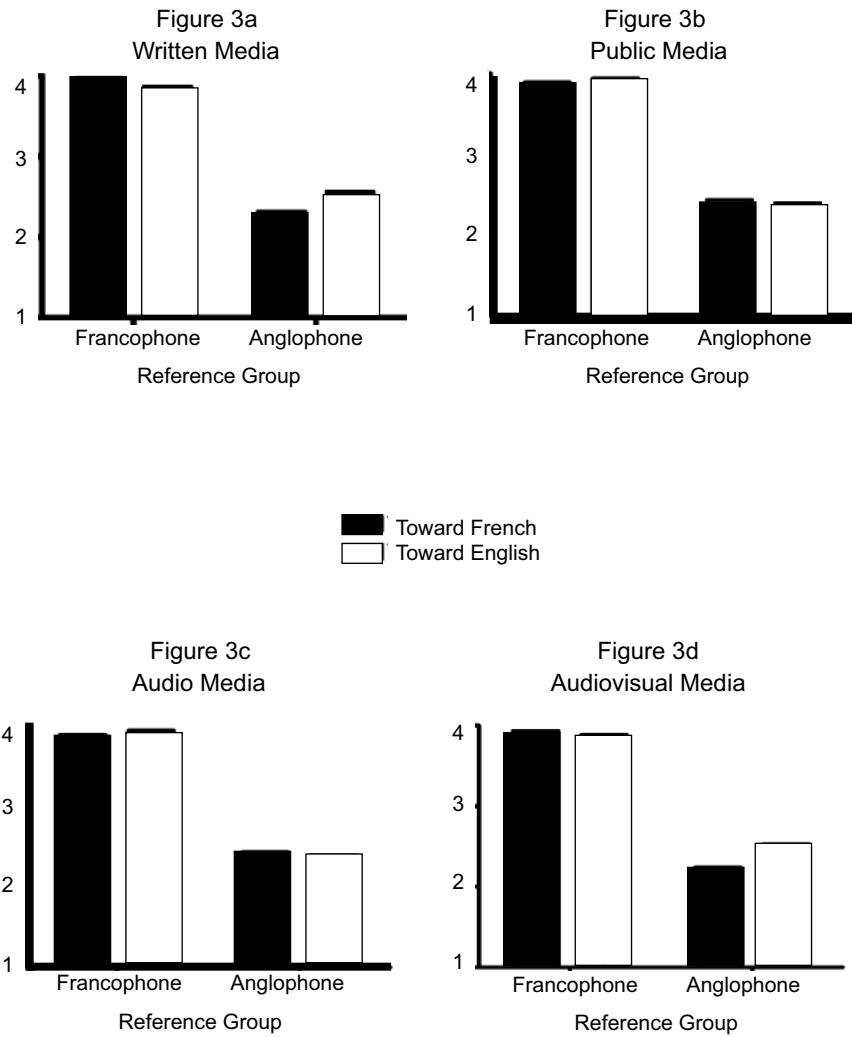


Figure 3. Mean Identity Change as a Function of Change in Media Usage and Reference Group

TABLE 2
Goodness of Fit Statistics Related to Mediation Model

<i>Model</i>	χ^2	<i>df</i>	<i>CFI</i>	<i>GFI</i>	<i>RMSEA</i>
Initial	42.24	11	.86	.93	.17
Final	25.66	14	.95	.94	.09

NOTE: CFI = comparative fit index; GFI = goodness of fit index; RMSEA = root mean square error of approximation.

media with more usage of English being related to an increase in identification to Anglophones.

Mediation Model

In order to test the third hypothesis, a path analysis (testing all four factors simultaneously) using EQS 5.7b (Bentler, 1998) was applied to the year 1 data using the model depicted in Figure 1.³ The model was tested on the covariance matrix. Given the importance of ethnolinguistic status as a precursor of English media usage, an index of the relative presence of Francophones (i.e. Francophone vitality) in the town or village where the participant had spent most of his or her life was computed. This was done by computing the ratio of the number of Francophones to the total population in the locality identified by each participant using census data collected by Statistics Canada (1996). The relative presence of Francophones varied from .8% to 98.8% with a mean of 50.2%.

The proposed model did not initially produce an adequate goodness of fit to the data (Table 2). In an attempt to improve the model, the Wald test for dropping parameters was first performed. The Wald test is a multivariate test that evaluates a set of parameters for statistical significance. The test determines whether parameters, such as paths or correlated errors, which are initially set as free in the model, could be set to zero without substantial loss to the fit of the model. In examining the list of redundant or nonsignificant parameters generated by the Wald test, it was indicated that the paths from public media, audio media, and audiovisual media to language confidence, the path from Francophone vitality to audio media and the path from language confidence to Anglophone identity be removed. Given that these paths were nonsignificant, they were dropped from the model. Examination of the modification indices provided by the Lagrange Multiplier (LM) test for adding parameters suggested intercorrelations among the error terms of the four media

types. Correlated errors among subscales of the same measuring instrument are not unusual and have been found to occur in other measures like self-concept and attitudes (Byrne, 1993). The LM test further recommended an intercorrelation between the errors of L2 self-confidence and L2 identity. Finally, a direct path between audiovisual media and Anglophone identity was added. With these additions, the model proved to be a good fit to the data (see Browne & Cudeck, 1993 for a discussion of acceptable RMSEA values). There were no further significant additions or deletions suggested. The final mediational model is depicted in Figure 4.

DISCUSSION

The purpose of the present study was to specify the role of media usage in the acculturation process of minority and majority Francophones sharing the same predominantly English milieu. To this end, mediating role of L2 confidence in the relationship between L2 media usage and ethnic identification was assessed. The final mediational model, for the most part, was consistent with the proposed model. The objective ethnolinguistic vitality of Francophones negatively affects both the extent of English media usage and English confidence. English media usage is positively related to English confidence, which influences positively the extent of Anglophone identity. Contrary to the hypothesis and some previous findings (e.g. Noels & Clément, 1996; Noels et al., 1996), L1 (French) identity was not affected by English media usage. It would therefore appear that, at least in the present case of two groups officially recognized by the institution, and with the caveat of the modest statistical power of this study relative to previous ones, L2 media do not have the eroding effect on ingroup identity witnessed to follow direct contact or situations in which the minority group has little or no recognition (Gaudet & Clément, in press; Noels et al, 1996).

The importance and benefits of exploring a wide range of media types was emphasized in the three nonsignificant paths that emerged from the final model. The paths from objective ethnolinguistic vitality to audio media, from audio media to English confidence, and from public media to English confidence are absent in the final model. Previous research has also failed to find support for the effects of audio forms of media (Lee & Tse, 1994, Payne, 2003). For example, Suraj and Smith (1978) showed that, while television and books played a significant role in foreign students' acculturation to American values, radio and stereo music did not. The assumption is that exposure to and the consumption of mass media of the majority group contributes to the minority groups learning about and becoming part of that majority group. What is it, then, about these

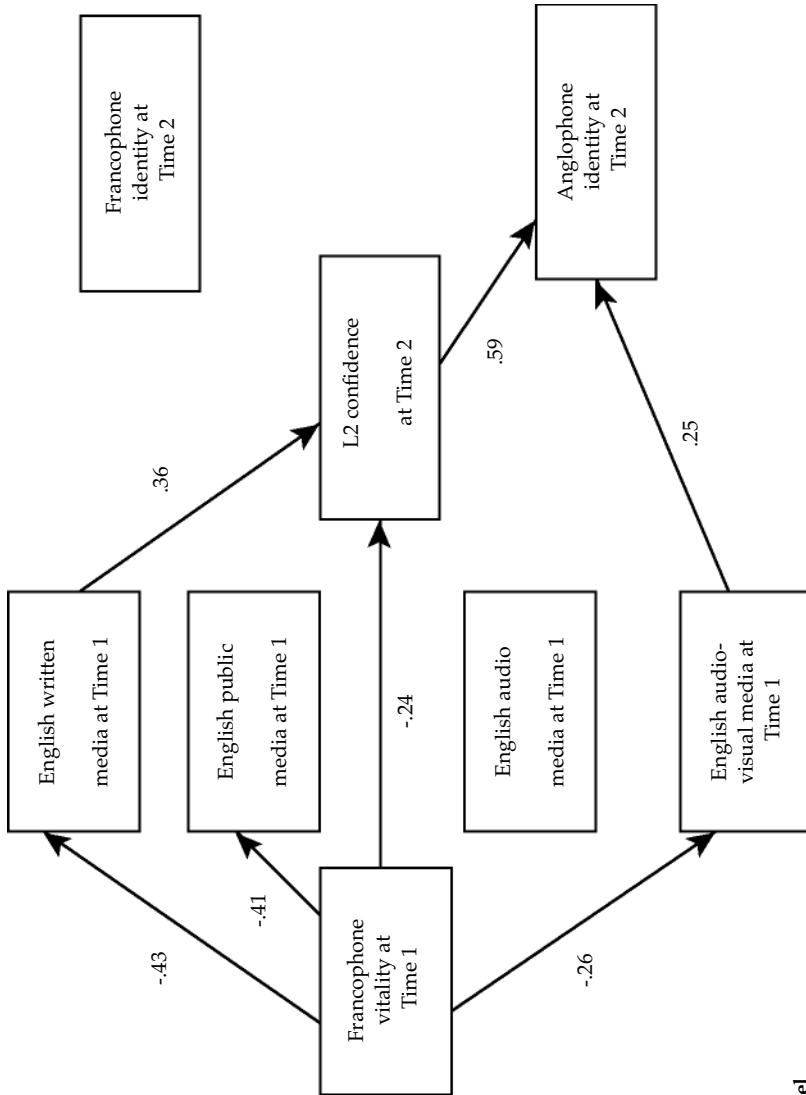


Figure 4. Final Mediation Model

NOTE: Certain intercorrelations among error terms suggested in the modification indices were added to the proposed model; however, they are not depicted in the figure for the purpose of clarity.

forms of media that they do not appear to play a significant role in the acculturation process?

Given that previous research has tended to focus primarily on television, the results here concerning public and audio media are somewhat tenuous in nature. The literature on influence and persuasion, however, may offer some insight into the findings. Research in the area of persuasion has found that the extent of involvement a person has in the information that is being presented to them tends to determine whether or not they will be influenced by that information (Cacioppo, Petty, Kao, & Rodriguez, 1986; Elasmir, 2003; Johnson & Eagly, 1989; Stiff, 1986). Thus, it could be argued that more remote forms of media like billboards and flyers, which entail less personal involvement, would not have as strong an impact on the acculturation process as more salient forms of media such as television. Nasser and MacEwen (1976) report that a printed message was rated as more arousing and involving than the same message presented via audio only and audiovisual channels. Interpreted in this light, our results thus support an interpretation of media impact on identity based on their degree of involvement, emphasizing written and audiovisual channels.

The specific processes underlying degree of involvement may, however, be quite different for the written and audiovisual channels. In the case of the written channel, greater involvement may originate from the cognitive involvement required for processing written material, particularly if in this case such material is related to school subjects. In addition to perceptual abilities, ability with the language is involved which would explain the fact that the influence of the written media on identity is mediated through L2 confidence. In the case of the audiovisual channel, a cue summation explanation (Hartman, 1961) seems more adequate. Compared to audio and public media, the audiovisual create a more immediate communication environment, because it addresses both visual and auditory senses. To the extent that these carry redundant messages, L2 ability may not be involved, allowing the audiovisual channel to affect identity directly, bypassing L2 confidence. These interpretations, while appealing because of their conceptual simplicity, require further research, probing directly the role of degree of involvement with messages which content would be standardized across channels for their degree of L2 difficulty.

Another goal of this study was to examine the evolution of the minority and majority groups over time and across media type. We hypothesized that English media consumption would be more prevalent among the minority Francophones. Confirming our hypothesis, the minority group did, in fact, consume significantly more English media than the majority group. These results, however, are mitigated by the interaction among target group, media type and time. While the minority group

initially consumed more English media than the majority group, over time, the majority group significantly increased their use of English public and written media. Given the importance afforded the written channels in the preceding discussion of the path analytic results, this suggests that the majority group may thus be strengthening its English identity. The minority group, however, significantly increased its consumption of French written media. Studying in a bilingual institution that promotes French probably provides members of this group with greater access to the French texts than what is available in their community of origin. In their case, the change favours French together with a probable lessening of their English identity. Both the majority and the minority groups' reactions are, therefore, indicative of environmental and institutional influences effectively modulating media usage. As shown, a shared environment can however, have drastically opposite effects, depending on the relative vitality of the affected group.

The final goal was to explore the relationship between change in media usage over time and subsequent changes in ethnic identification. It was presumed that greater use of L2 media would increase L2 identification. First, the results revealed that both minority and majority Francophone groups identified significantly more with Francophones than with Anglophones. Second, no direct effect of media change was found to affect Francophone identity, a finding echoing the results of the path analysis. For written media, however—and, to a lesser extent, for the audiovisual media—those who evolved towards more usage of English increased their identification to Anglophones. Such an interaction was nonsignificant, however, for public and audio media types. It is important to note that the estimated power of the analyses concerning both public and audio media was rather low ($< .10$). A larger sample size could potentially provide the necessary power to detect an effect for both of these media types. These findings are, in part, consistent with those of Payne (2003) who explored the impact of cross-cultural mass media on Francophones' attitudes towards and cognitions about Anglophones. For example, while watching television and reading magazines significantly predicted the Francophones' knowledge about Anglophones, listening to Anglophone radio did not. Further, Beadle (2003) uncovered correlations between television and print media and social reality, suggesting that these forms of media offer more accurate perceptions of the culture, thus enabling greater identification to that culture. Taken together, these findings further emphasize the importance of looking at qualitatively different impact of media types on media effects. As stated in the discussion above, the written and audio visual media appear much more powerful than the more remote public and audio types, thus further buttressing the effects of greater involvement.

CONCLUSION

In an oft-quoted review of the literature, Subervi-Velez (1986) suggested that models of media effects, such as the one offered here, could be dichotomized into those supporting assimilation and those supporting pluralism. Our proposed approach deals with the two outcomes in an integrated manner. Even though media usage seems to have little direct effect on Francophone identity as opposed to Anglophone identity, both effects are assessed through our methodology. Viewed through the development of linguistic confidence, the media are, therefore, conceived as servicing potentially both assimilation and pluralism. Furthermore, while a shift in media usage may occur, all media types are not necessarily involved suggesting differential cultural retention. Finally, the assimilation-pluralism dichotomy may be best understood by integrating cultural and language data to the model, as was done here.

In conclusion, owing to its longitudinal design and statistical approach, this study was able to provide strong evidence of media effects on acculturation coupled with a relatively succinct understanding of their complex effect. Looking at the phenomenon as a process evolving in time suggests even more drastic consequences. By influencing identity profiles, media usage and the development of second language confidence promote societal level changes in the ethnic composition of the population. In doing so, the relative ethnolinguistic vitality of the ethnic groups is changed, entailing the consequences depicted here at the level of media usage and language confidence. In the long term, the consequences of media usage, therefore, create the conditions promoting their usage, supporting Gerbner's (1969) cultivation theory outside its initial empirical context of television violence. In the same line of thinking, Varan's (1998) erosion metaphor applied to media effects considers the possibility that they may have depletion (e.g., abrasion, deflation) as well as accretion (e.g., deposition, saltation) effects on culture. In the present case, given that the results support the existence of an impact on L2 but not on L1 identity, it would seem that a deposition effect has been obtained. This effect is, however, heavily moderated by the type of media and by the ethnolinguistic vitality of the groups, substantiating the need for further research on context effects emphasized by Barnett and Lee (2002).

NOTES

1. Comprehensive information regarding goodness of fit statistics provided by EQS can be found in Byrne (1994) and Byrne and Campbell (1999).

2. Due to an unequal number of items in each factor, it was necessary to take the average of the score in order to make the means comparable for subsequent analyses.

3. In path analysis or structural equation modeling, it is preferable to have a sample size of at least 200 (Tabachnick & Fidell, 2001). It was, therefore, deemed more appropriate to use year 1 data to meet these minimum requirements.

REFERENCES

- Abrams, J., O'Connor, J., & Giles, H. (2002). Identity and intergroup communication. In W. B. Gudykunst & B. Mody (Eds.), *Handbook of international and cross-cultural communication* (2nd ed., pp. 225–240). London: Sage.
- Alexander, C. N., & Beggs, J. J. (1986). Disguising personal inventories: A situated identity strategy. *Social Psychology Quarterly*, *49*, 192–200.
- Barnett, G. A., & Lee, M. (2002). Issues in intercultural communication research. In W. B. Gudykunst & B. Mody (Eds.), *Handbook of international and cross-cultural communication* (2nd ed., pp. 275–290). London: Sage.
- Barnett, G. A., & MacPhail, T. (1980). An examination of the relationship of United States television and Canadian identity. *International Journal of Intercultural Relations*, *4*, 219–232.
- Barnett, G. A., Oliveira, O. S., & Johnson, J. D. (1989). Multilingual language use and television exposure and preferences: The case of Belize. *Communication Quarterly*, *37*, 248–261.
- Beadle, M. (2003). The influence of television and media use on Argentines about perceptions of the United States. In M. G. Elasmr (Ed.), *The impact of international television: A paradigm shift* (pp. 57–76). London: Erlbaum.
- Beattie, E. (1967). In Canada's centennial year, U.S. mass media influence probed. *Journalism Quarterly*, *44*(4), 667–672.
- Bentler, P. M. (1998). *EQS: Structural Equations Program Manual*. Encino, CA: Multivariate Software.
- Berry, J. W. (1990). Psychology of Acculturation: understanding individuals moving between cultures. In R. W. Brislin (Ed.), *Applied Cross-cultural Psychology: Vol. 14. Cross-cultural Research and Methodology Series* (pp. 232–253). Thousand Oaks, CA: Sage.
- Berry, J. W. (1999). Intercultural relations in plural societies. *Canadian Psychology*, *40*, 12–21.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Beverly Hills, CA: Sage.
- Byrne, B. (1993). The Maslach Burnout Inventory: Testing for factorial validity and invariance across elementary, intermediate and secondary teachers. *Journal of Occupational and Organizational Psychology*, *66*, 197–212.
- Byrne, B. (1994). *Structural equation modeling with EQS and EQS/Windows: Basic concepts, applications and programming*. London: Sage.
- Byrne, B., & Campbell, T. L. (1999). Cross-cultural comparisons and the presumption of equivalent measurement and theoretical structure: A look beneath the surface. *Journal of Cross-Cultural Psychology*, *30*(5), 555–574.
- Cacioppo, J. T., Petty, R. E., Kao, C. F., & Rodriguez, R. (1986). Central and peripheral routes to persuasion: An individual difference perspective. *Journal of Personality and Social Psychology*, *51*, 1032–1043.
- Caron, A. H. (1977). *Television in the North: Its effect on the cultural images Inuit children have of their own and other groups*. Dissertation Abstracts International, *38*(2A), 532.
- Castro, V. (2003). *Acculturation and psychological adaptation*. London: Greenwood Press.
- Cerulo, K. A., Ruane, J. M., & Chayko, M. (1992). Technological ties that bind. *Communication Research*, *19*, 109–129.
- Chaffee, S. H., Nass, C. I., & Yang, S. M. (1990). The bridging role of television in immigrant political socialization. *Human Communication Research*, *17*, 266–288.
- Chun, K. M., Organista, P. B., & Marin, G. (2003). *Acculturation: Advances in theory, measurement, and applied research*. Washington, DC: American Psychological Association.

- Clément, R. (1980). Ethnicity, contact and communicative competence in a second language. In H. Giles, W. P. Robinson, & P. M. Smith (Eds.), *Language: Social psychological perspectives* (pp. 147–154). Oxford, UK: Pergamon.
- Clément, R. (1986). Second language proficiency and acculturation: An investigation of the effects of language status and individual characteristics. *Journal of Language and Social Psychology, 5*, 271–290.
- Clément, R., Baker, S. C., & MacIntyre, P. D. (2003). Willingness to communicate in a second language: The effects of context, norms and vitality. *Journal of Language and Social Psychology, 22*, 190–209.
- Clément, R., Dörnyei, Z. & Noels, K. (1994). Motivation, self-confidence and group cohesion in the foreign language classroom. *Language Learning, 44*, 417–448.
- Clément, R., Noels, K. A., & Deneault, B. (2001). Inter-ethnic contact, identity, and psychological adjustment: The mediating and moderating roles of communication. *Journal of Social Issues, 57*, 559–577.
- Clément, R., & Kruidenier, B. G. (1985). Aptitude, attitude and motivation in second language proficiency: A test of Clément's model. *Journal of Language and Social Psychology, 4*, 21–34.
- Clément, R., & Noels, K. (1992). Towards a situated approach to ethnolinguistic identity: The effects of status on individuals and groups. *Journal of Language and Social Psychology, 11*, 203–223.
- Collier, M. J., & Thomas, M. (1988). Cultural identity: An interpretive perspective. In Y. Y. Kim & W. B. Gudykunst (Eds.) *Theories in intercultural communication*. Newbury Park, CA: Sage.
- Driedger, L., & Redekop, P. (October, 1998). *Testing the Innis and McLuhan theses: Mennonite media access and TV use*. Paper presented at the biannual Canadian Ethnic Studies Association conference, Gimli, Manitoba.
- Elasmar, M. G. (2003) *The impact of international television: A paradigm shift*. London: Erlbaum.
- Gaudet, S., & Clement, R. (in press). Ethnic identity and psychological adjustment among the Fransaskois. *Canadian Journal of Behavioral Science*.
- Gerbner, G. (1969). Towards cultural indicators. *AV Communication Review, 17*, 137–148.
- Giles, H., Bourhis, R. Y., & Taylor, D. M. (1977). Towards a theory of language in ethnic group relations. In H. Giles (Ed.), *Language, ethnicity and intergroup relations* (pp. 307–348). London: Academic Press.
- Gudykunst, W. B. (Ed.). (2002). *Handbook of international and intercultural communication* (2nd ed.). Thousand Oaks, CA: Sage.
- Hartman, F. R. (1961). Single- and multiple-channel communications: A review of research and a proposed model. *AV Communication Review, 9*, 24–43.
- Harwood, J., Giles, H., & Bourhis, R. Y. (1994). The genesis of vitality theory: Historical patterns and discorsal dimensions. *International Journal of the Sociology of Language, 108*, 167–206.
- Hecht, M. L., & Baldwin, J. R. (1998). Layers and holograms: A new look at prejudice. In M. Hecht (Ed), *Communicating prejudice* (pp. 57-84). Thousand Oaks, CA: Sage.
- Hong, Y., Morris, M. W., Chiu, C., & Benet-Martinez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist, 55*, 709–720.
- Johnson, M. A. (1996). Latinas and Television in the United States: Relationships among Genre Identification, Acculturation and Acculturation Stress. *The Howard Journal of Communications, 7*, 289–313.
- Johnson, B. T., & Eagly, A. H. (1989). Effects of involvement on persuasion: A meta-analysis. *Psychological Bulletin, 106*, 290–314.
- Kim, Y. Y. (1984). Searching for creative integration. In W. B. Gudykunst and Y. Y. Kim (Eds.), *Methods for intercultural communication research, Vol. 8. International and intercultural communication annual*. Newbury Park: Sage.

- Kim, Y. Y. (1990). Communication and adaptation: The case of Asian Pacific refugees in the United States. *Journal of Asian Pacific Communication, 1*, 191–207.
- Korzenny, F., & Ting-Toomey, S. (1992). Effects of the media across cultures. *International and intercultural communication annual, Vol. XVI*. Beverly Hills, CA: Sage.
- Landry, R., & Bourhis, R. Y. (1997). Linguistic landscape and ethnolinguistic vitality: An empirical study. *Journal of Language and Social Psychology, 16*, 23–49.
- Lee, W. N., & Tse, D. K. (1994). Changing Media Consumption in a New Home: Acculturation patterns among Hong Kong immigrants to Canada. *Journal of Advertising, 23*, 57–70.
- Leets, L., Giles, H., & Clément, R. (1996). Explicating ethnicity in theory and communication research. *Multilingua, 15*, 115–147.
- Nasser, D. L., & McEwen, W. J. (1976). The impact of alternative media channels: Recall and involvement with messages. *AV Communication Review, 24*, 263–272.
- Noels, K., & Clément, R. (1996). Communicating across cultures: Social determinants and acculturative consequences. *Canadian Journal of Behavioral Science, 28*, 214–228.
- Noels, K., Pon, G., & Clément, R. (1996). Language, identity, and adjustment: The role of linguistic self-confidence in the acculturation process. *Journal of Language and Social Psychology, 15*, 246–264.
- Okamura, J. Y. (1981). Situational ethnicity. *Ethnic and Racial Studies, 4*, 453–465.
- Payne, D. E. (2003). Impacts of cross-cultural mass media in Iceland: Northern Minnesota, and Francophone Canada in retrospect. In M.G. Elasmár (Ed.), *The impact of international television: A paradigm shift* (pp. 17–28). London: Erlbaum.
- Payne, D. E., & Peake, C. A. (1977). Cultural Diffusion: The role of U.S. TV in Iceland. *Journalism Quarterly, 54*, 523–531.
- Phinney, J. S. (1990). Ethnic identity in adolescents and adults: A review of research. *Psychological Bulletin, 108*, 499–514.
- Phinney, J. S. (2003). Ethnic identity and acculturation. In K. M. Chun, P. B. Organista, & G. Marin (Eds.), *Acculturation: Advances in theory, measurement, and applied research* (pp. 63–81). Washington, DC: American Psychological Association.
- Redfield, R., Linton, R., & Herskovits, M. (1936). Memorandum on the study of acculturation. *American Anthropologist, 38*, 149–152.
- Robinson, W. P. (1972). *Language and social behaviour*. Harmondsworth, UK: Penguin.
- Shah, H. (1991). Communication and cross-cultural adaptation patterns among Asian Indians. *International Journal of Intercultural Relations, 15*, 311–321.
- Shibutani, T., & Kwan, L. (1965). *Ethnic stratification. A comparative approach*. New York: Macmillan.
- Statistics Canada (1996). *Home language and mother tongue: 1996 Census of Canada*. Ottawa, Canada: Industry, Science and Technology.
- Stiff, J. B. (1986). Cognitive processing of persuasive message cues: A meta-analytic review of the effects of supporting information on attitudes. *Communication Monographs, 53*, 75–89.
- Subervi-Velez, F. A. (1986). The mass media and ethnic assimilation and pluralism: A review and research proposal with special focus on Hispanics. *Communication Research, 13*, 71–96.
- Suraj, K., & Smith, R. (1978, August). *The role of communication in acculturation of foreign students*. Paper presented at the annual meeting of the Association for Education in Journalism and Mass Communication, Seattle, Washington.
- Tabachnick, B., & Fidell, L. (2001). *Using multivariate statistics* (4th edition). Boston: Allyn & Bacon.
- Varan, D. (1998). The cultural erosion metaphor and the transcultural impact of media. *Journal of Communication, 48*, 58–85.
- Ware, W., & Dupagne, M. (1994). Effects of U.S. television programs on foreign audiences: A meta-analysis. *Journalism Quarterly, 71*, 947–959.

- Weinreich, P. (1991). Ethnic identities and indigenous psychologies in pluralist societies. *Psychology and Developing Societies*, 3(1), 73–92.
- Yaple, P., & Korzenny, F. (1989). Electronic mass media effects across cultures. In M.K. Asante & W. Gudykunst (Eds.), *Handbook of international and intercultural communication* (pp. 295–317). Newbury Park, CA: Sage.