

Ethnic Group Affiliation and Patterns of Development of a Phonological Variable

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In today's increasingly multicultural and multilingual world, having the ability to use a variety of second (L2) or foreign languages is no longer just a luxury but a socioeconomic necessity. This situation has given rise to an urgency to understand more deeply the relationship between L2 learning and use and factors arising from membership in social groups. In this study, we examined the association between a group of Quebec Francophones' sense of belonging to their ethnic group (*ethnic group affiliation*, or EGA) and their English pronunciation accuracy. The results revealed that certain component dimensions of EGA were negatively associated with participants' pronunciation accuracy of the English voiced interdental fricative (e.g., $/\delta/$ in *other*), an important marker of ethnolinguistic identity. The stronger the EGA, the less native-like the L2 pronunciation accuracy. This EGA–pronunciation accuracy link, however, was mediated by the amount of self-reported L2 use. The findings are discussed in terms of their implications for L2 and foreign language learning in contexts in which ethnolinguistic identity issues are important.

THE INTIMATE LINK BETWEEN LANGUAGE and identity is well documented in the literature (Edwards, 1985; Fought, 2006; Gumperz, 1982; Pavlenko & Blackledge, 2004; Ricento, 2005), as are the socioeconomic consequences arising from this link. Most salient among these consequences is the fact that social groups often use language to grant group membership to some speakers and to deny it to others, empowering those who have received membership and disenfranchising those who have not (Bailey, 2000; Fought, 2006; Le Page & Tabouret-Keller, 1985; Lippi-Green, 1997). Within the framework of Bourdieu's (1991) market economy concept of language (see also Heller, 2002; Tan & Rubdy, 2008, on the commodification

The Modern Language Journal, 95, ii, (2011) DOI: 10.1111/j.1540-4781.2011.01177.x 0026-7902/11/188–204 \$1.50/0 ©2011 The Modern Language Journal of language), language can be thought of as capital available to proficient speakers in accessing socioeconomic benefits (e.g., access to jobs, promotions, membership status) but denied to nonproficient speakers (Derwing, 2003; Derwing, Rossiter, Munro, & Thompson, 2004; Norton, 2000).

It has been hypothesized that this relationship between language and group identity might impact an individual's acquisition and use of his or her second language (L2), particularly if the L2 is the language of the dominant group (Gatbonton & Trofimovich, 2008; Sachdev & Bourhis, 1990; Sachdev & Giles, 2004). Some L2 users who are aware of the benefits of membership in the majority group and who realize that this membership can be attained by being fluent in the group's language may strive to learn the L2 to sound as nativelike as possible. In contrast, others may sense that sounding native-like in the L2 may make them appear less loyal to their own first-language (L1) group (Gatbonton, Trofimovich, & Magid, 2005). These language users may modify or monitor their own L2 learning and use it to remain clearly distinguishable in speech from native speakers (NSs) of the L2, at least in the judgment of their peers.

However, although the link between ethnic group identity and language has been widely discussed, there has been, to date, very little empirical investigation on whether and how this link influences L2 development. This article reports a study that explored this issue in relation to a group of adult French-speaking Canadians (henceforth Francophones) in Quebec who speak English as their L2. In particular, the study explored the relationship between these Francophones' *ethnic* group affiliation (EGA)—defined here as a person's sense of belonging and loyalty to the social group he or she was born into or claims membership in—and the development of the voiced interdental fricative $/\delta/$ in English.

THE RELATIONSHIP BETWEEN LANGUAGE AND IDENTITY

Scholars have argued for the intimate relationship between language and identity from the fact that, barring a few exceptions (e.g., Northover & Donnelly, 1996), groups normally place a high value on language as a symbol of their identity (Edwards, 1985; Fought, 2006; Gumperz, 1982; Pavlenko & Blackledge, 2004; Ricento, 2005). Scholars have also argued for this relationship on the basis of the findings that specific features of a language (e.g., accent, a particular phonetic segment, or lexical items) as well as the choice of one language or language variety (including insider and outsider language) over another could be manipulated to express identity concerns (Bailey, 2000; Bourhis & Giles, 1977; Labov, 1972a; Lawson & Sachdev, 2004; Rampton, 2005; Zilles & King, 2005). Labov's (1972a) classic Martha's Vineyard study showing residents' use of a vowel sound to distinguish themselves from tourists who invaded their island every summer provides an example of how speakers can manipulate phonetic segments for identity purposes (see Blake & Josey, 2003, for an update of this study). More recently, Schilling-Estes (2004) showed that an interlocutor can use variations in phonology to convey different levels of proximity or distance from an ethnic group (see also Boberg, 2004; Zilles & King, 2005). Studies by Appel and Schoonen (2005), Doran (2004), and Reyes (2005) illustrate lexical manipulation for identity purposes by Dutch,

French, and Asian teenagers (e.g., Cambodians, Laotians, and Filipinos in the United States), respectively, who use words that have currency only among themselves. In terms of accent manipulation, examples can be found in Bourhis and Giles (1977) and Gatbonton et al. (2005). These studies show that a speaker's L1 or L2 accent can be used to indicate group identity, loyalty, and allegiance. Bailey (2000) provided an example of how language choice can also be manipulated for identity purposes. He documented the case of a Dominican teenager who spoke either Black English or Spanish depending on which aspect of his dual identity (Black or Hispanic) he wished to emphasize from moment to moment (see also Lo, 1999). Together, these studies document the basis for the proposal that identity issues might affect L2 learning. However, few studies have actually investigated this proposal directly.

ETHNIC GROUP IDENTITY AND L2 LEARNING

Among the first to investigate the link between language learning and ethnic group identity were Taylor, Meynard, and Rhéault (1977), who found, among other things, a statistically significant negative association between Quebec Francophones' self-rated English proficiency levels and their fear that contact with English would erode the French language. In contrast, Ellinger (2000) found a positive association between strength of ethnolinguistic identification and English proficiency and achievement levels attained by adult Russian and Hebrew learners of English in Israel (where English is a foreign language). In Ellinger's study, a stronger sense of identification with an ethnolinguistic group was associated with higher English proficiency scores. Coupland, Bishop, Williams, Evans, and Garrett (2005) also found a positive association between language learning and ethnic strength of identification in their study of Welsh high school students in Wales. Those who showed strong personal affiliation with the Welsh group had higher levels of competence in Welsh than those who showed weaker affiliation. Lee (2002) studied a group of Korean university students in the United States. These students' strong ties with their ethnic group (as shown by a desire to visit their home country and the frequency of visits there), among other things, were associated with higher levels of self-rated proficiency in Korean. Although these studies have uncovered associations between language and identity that might impact the development of target language proficiency, they have

focused only on a few identity issues, such as perceived threat to the group, strength of group identification, and strength of group ties, as manifested in visits to the home country. Moreover, these studies have related these factors to only two of many possible aspects of target language proficiency attainment—namely, self-rated proficiency and classroom achievement.

Gatbonton and Trofimovich (2008) extended this line of research by highlighting L2 oral proficiency attainment and by using a wider range of measures than had hitherto been employed. To begin with, they examined more closely the ethnic identity construct (which they termed "Ethnic Group Affiliation") to discover other possible dimensions that might be associated with aspects of oral proficiency. These researchers asked a group of Quebec Francophones to respond to 21 EGA questions and then submitted these participants' responses to an exploratory factor analysis, which revealed four factors underlying EGA. These were identified as (a) general pride about the group, about being born into it, and about knowing its history and achievement ("Core EGA"); (b) strength of identification with the group coupled with a positive orientation toward the L2 group ("Group ID EGA"); (c) belief in the importance of language in defining identity ("Language EGA"); and (d) support for the group's political aspirations ("Political EGA").

Gatbonton and Trofimovich (2008) examined the associations between each of these factors and self-ratings and NS ratings of participants' global ability (combined scores on reading, writing, speaking, and listening); accentedness (presence of L1 features); fluency (lack of unnecessary hesitations and pauses); and comprehensibility (ease with which speech is understood). The results revealed a significant positive association between self-rated global ability and Group ID EGA, a significant negative association between NS-rated fluency, accentedness, and comprehensibility and both Language EGA and Political EGA but no significant association with Core EGA. Overall, the results showed that those who professed strong positive identification with both their ethnic group and the target language group had higher levels of self-rated global L2 ability than those who professed strong positive identification only with their own ethnic group. In addition, those who showed strong beliefs that language played a crucial role in defining group identity and who expressed strong support for the political aspirations of their group had lower levels of L2 fluency, accentedness, and comprehensibility. Gatbonton and Trofimovich also reported

evidence that the association between EGA and these aspects of L2 oral proficiency might be indirect and might be mediated by the amount of L2 use. This opens up the possibility that EGA considerations might not directly have an impact on oral proficiency but might instead affect whether and how learners use the target language. To summarize, it appears that there are indeed significant associations between group identity issues and selfand NS-rated aspects of L2 oral proficiency, that these relationships can be both positive (Coupland et al., 2005; Ellinger, 2000; Gatbonton & Trofimovich, 2008; Lee, 2002) and negative (Gatbonton & Trofimovich, 2008; Taylor et al., 1977), and that they could be mediated through L2 use (Gatbonton & Trofimovich, 2008).

The studies just reviewed addressed possible links between EGA and oral proficiency by focusing largely on the acquisition of macro levels of oral proficiency such as global ability, overall accentedness, fluency, and comprehensibility. The studies have not focused on acquisition of specific features of oral skill (micro levels of oral proficiency). Recall that several studies on language and identity reviewed earlier (e.g., Doran, 2004; Labov, 1972a; Schilling-Estes, 2004) have shown that specific features of the target language (its phonology, grammar, or lexicon) are sometimes manipulated to negotiate identity. This suggests that perhaps identity issues might also be implicated in the acquisition of these specific features. To fully understand the role of EGA in oral proficiency development, therefore, it is imperative to investigate not just how EGA might impact the development of global aspects of oral proficiency but also how it is implicated, if at all, in the development of specific features of the language.

THE CURRENT STUDY

In the current study, we examined the relationship between the EGA factors identified in Gatbonton and Trofimovich's (2008) study and participants' pronunciation accuracy with respect to one specific aspect of L2 phonology-English $/\delta/$ (as in *mother*, *they*, or *those*). We focused on phonology and, in particular, on English /ð/ for two reasons. First, although English /ð/ has a low functional load (Munro & Derwing, 2006), meaning that it distinguishes relatively few word pairs in English, and its mispronunciation often does not impede communication (Levis & Cortes, 2008), it has nevertheless been found to correlate with social variables in many dialects of English. Labov (1966), for example, found that the fricative variant of this phoneme was correlated with prestige, whereas its affricate and dental variants were stigmatized in the English speech of New Yorkers. Milroy (1987) reported $/\delta$ / to be one of eight phonological variables significantly associated with strength of network ties and to be one of the phonological variables that functioned as age and gender markers in working-class English speech in Belfast. These findings showing $/\delta$ / to be a sociolinguistic marker (Labov, 1972b) suggested to us that it may be a useful phonological target to investigate for possible associations between EGA and L2 oral proficiency.

The second reason for focusing on English $/\delta/$ is that Trofimovich, Gatbonton, and Segalowitz (2007) recently developed and validated an implicational framework for explaining systematic development of L2 phonology, focusing on the development of this sound in particular. This framework is referred to as the Gradual Diffusion Framework (GDF). In GDF, the acquisition of accuracy with a target sound is seen to proceed systematically from one phonetic environment to another, moving from "easy" to more "difficult" environments. The ease or difficulty of acquiring the phonological target in different phonetic environments was found by Trofimovich et al. to be affected by two psycholinguistic variables. The first is the *perceptual similarity* of the target L2 sound embedded in a given phonetic environment to other sounds in a speaker's L1 with which it might be confused. The more perceptually similar a target sound is to a specific sound in the L2 user's L1, the harder it is for the speaker to avoid "assimilating" this target sound to the L1 sound (Baker, Trofimovich, Flege, Mack, & Halter, 2008; see also Major, 2001). For example, instead of producing the English voiced interdental fricative /ð/ in a given phonetic environment, the speaker will more likely produce a sound that is perceptually similar to it in French (e.g., the English $/\delta/$ in wanted the will likely be assimilated to, and consequently be produced as, the French /d/). The second psycholinguistic variable affecting the course of phonological development is lexical frequency, with which the target sound occurs in the various phonetic environments in the target language at large. The more frequently a target sound occurs in a particular environment, the easier it will be for a speaker to master that sound in that environment.

To test the GDF, Trofimovich et al. (2007) examined the patterns of pronunciation accuracy with which a group of 40 Francophone speakers of English produced English $/\delta/$ in different phonetic environments—for example, after a vowel sound (*father*), after a pause (*#They*), or after voiceless and voiced stops (ask the author, beside the). Each participant's pattern of pronunciation was defined in terms of whether the target sound was produced accurately or inaccurately in each of seven phonetic environments, these environments being ranked in order of difficulty based on joint consideration of the psycholinguistic factors of perceptual similarity and frequency described earlier. Once the researchers had determined a participant's pronunciation patterns (accurate, inaccurate, variable) in each of these environments, they matched each pattern against those predicted by the GDF matrix hypothesized to represent the possible stages in the systematic and nonrandom development of this sound. It was found that the number of participants with pronunciation accuracy patterns matching those predicted by the GDF matrix was significantly greater than would be expected by chance. The fact that L2 users could be assigned to different stages of development with respect to development of a specific phonological target along a continuum (as specified by the GDF) opened up the possibility of examining what role EGA issues may have in the development of one particular aspect of L2 phonology. Moreover, because the GDF matrix is built on the psycholinguistic principles of perceptual similarity and frequency, there was the possibility of speculating on the role of such psycholinguistic considerations in any EGA-oral proficiency links that might be found.

In the current study, we reexamined the data from participants in Gatbonton and Trofimovich (2008). Those participants' general proficiency levels in English, as rated by the participants themselves or by NSs, had already been shown to be statistically associated with several EGA measures. For this study, we analyzed these same participants' pronunciation of English $/\delta/$. The goal was to see whether EGA would also be significantly associated with (a) their overall accuracy in producing English $/\delta/$ and (b) their specific pattern of phonological development with this sound as evaluated in the GDF. Taking a cue from Gatbonton and Trofimovich, who found that the amount of self-reported L2 use may mediate the association between EGA and the acquisition of global aspects of L2 oral proficiency, we decided to also investigate the role of self-reported L2 use in the present study. Specifically, we were interested in whether and how the amount of L2 use might affect the association between EGA and overall pronunciation accuracy with English $/\delta/$, and with the GDF-specified level of English /ð/ development. Three research questions were asked:

1. Are EGA factors significantly associated with the participants' overall accuracy in producing English ∂/∂ ?

2. Are EGA factors significantly associated with the participants' overall level of development in producing this sound, as evaluated using the GDF?

3. What role does the amount of L2 use play in these associations?

METHOD

Participants

The participants were 45 of the 59 Francophone speakers of English (20 males, 25 females) from Gatbonton and Trofimovich (2008). Of the original 59 participants, 9 were excluded because they were still formally studying English at the time of the study. Although it would have been interesting to compare participants still taking formal courses in English with those no longer doing so, this student group was not large enough to serve as a comparison group. For the sake of having a homogenous group whose L2 production skills were not under development through explicit instruction, it was decided to focus only on those participants who were no longer attending language classes. Of these, an additional 5 had to be excluded because they did not provide all the relevant measures focused on in this study (i.e., they failed to answer all questions on the questionnaires).

All participants (mean age: 37.4; range: 21–61) reported being born of French-speaking parents and claimed French as their native language. All but 2 were born in Quebec and grew up there from birth. Of the 2 born outside Quebec, 1 was born in the United States and the other in New Brunswick but claimed to have grown up in Quebec in a French-speaking milieu from a young age. (A preliminary examination of their data showed that these 2 were not noticeably different from the rest.) All of the participants had attended regular English (L2) classes in elementary (45 minutes once or twice per week) and high school (75 minutes once or twice per week). When asked to estimate their daily English use, the participants reported, on average, a 24.2% use (range: 0-100%) using an 11-point scale (where 1 = 0%, 11 = 100%). They rated their ability to handle English at a mean of 5.7 on a 9-point scale (range: 1-9; where 1 = not at all well, 9 = extremely well). No participant reported having any known hearing impediment.

Materials

A reading task was used to elicit speech samples from the participants. In this task, the participants read a 400-word narrative originally designed for another study (Trofimovich et al., 2007). This narrative contained 70 target tokens of English /ð/ distributed across seven phonetic environments, with 10 tokens per environment (see the appendix).¹ The participants also completed four questionnaires-Biographical, Language Background, Ethnic Group Affiliation, and Language Use. The Biographical Questionnaire sought information about the participants' age, gender, birthplace, and other biographical facts. The Language Background Questionnaire sought information about the participants' language learning histories and also elicited the participants' self-ratings of their ability to read, write, speak, and understand English and of their accentedness, comprehensibility, and fluency in English, each rated on a 9-point Likert scale. The Language Use Questionnaire elicited information on how often participants used English in their daily life. For this purpose, the participants estimated their amount of daily L2 use on 11point (0-100%) scales, where 1 indicated 0% use and 11 indicated 100% use. The EGA Questionnaire asked the participants to indicate what social/ethnic group they belonged to and then to respond to 21 statements probing their reactions to and relationships with this group.² Most of the statements were taken from past literature on the relationship between language and identity, and people's possible views, opinions, or beliefs about, and support for, their ethnic group (e.g., I am proud of being a member of my ethnic group/Immigrants should be forced to send their children to French schools). The statements were accompanied by 9-point Likert scales that the participants used to indicate the extent of their disagreement or agreement with the opinions, views, and beliefs expressed in the statements (1 = I do not agree at all, 9 = I agree completely)or to indicate how well they believed the statement described them (1 = It does not describe me at)all, 9 =It describes me perfectly).

Procedure and Data Analysis

Participants were either invited to a convenient and quiet location at a local French college or were visited by a research assistant at their home or workplace. Some participants were asked to complete the questionnaire before they were recorded; for others, the process was reversed. For the reading task, the participants were individually recorded, using a Plantronics (DSP-300) head-mounted microphone. The participants were allowed to read the text quietly before they were recorded. They read the text twice. Only the second reading was used for data analysis.

The data analyzed in this study were the participants' overall accuracy in pronouncing English $/\delta/$, their level of development with regard to this sound as evaluated using the GDF, and their mean scores on each of the four EGA variables that emerged from the factor analysis in Gatbonton and Trofimovich (2008). The participants' selfreported amount of daily use provided an L2 Use score expressed as a percentage for each participant.

Each participant's recordings of the text were transcribed and analyzed, as described later (see Trofimovich et al., 2007, for details). To compute overall accuracy scores in producing English /ð/, each participant's reading of the text was presented to a group of 10 English-speaking listeners (mean age: 40.7; range: 25-58) recruited from a pool of English-as-a-second-language (ESL) teachers and teachers-in-training at a local Englishlanguage university. The 10 listeners had completed a course in phonology and had taught ESL for an average of 1.5 years (range: .10-4.0) at the time they did the task. All listeners reported normal hearing. The listeners were asked to do the rating task individually, sitting with headphones in front of the computer and holding a printed transcript of the narrative. They were instructed to listen to each participant and to indicate whether this participant produced each instance of the target sound-marked in the printed transcriptaccurately or inaccurately. The rating task was selfpaced, and the listeners were allowed to listen to each recording, replay its segments, and change their responses as many times as they wished. Prior to listening, the listeners scored one practice reading to familiarize themselves with the procedure. With rare exceptions, the listeners maintained an efficient scoring pace, making accuracy decisions without frequent replaying of text segments and changing of the ratings given. The overall accuracy score was calculated for each participant by averaging, across the 10 listeners, the number of accurate English /ð/ productions. Because each participant attempted to produce a total of 70 instances of English $/\delta/$ (10 exemplars distributed across seven environments), the maximum score possible was 70.

Level of phonological development with respect to English $/\delta/$ was evaluated through the

GDF. To determine the level placement for each participant, the 10 listeners' judgments of each participant's production accuracy in the seven phonetic environments were evaluated first, using 80% as the accuracy criterion (Rickford, 2002); that is, participants who (according to the 10 listeners) produced English /ð/ accurately in at least 80% of the tokens in that environment (i.e., in 8, 9, or 10 cases out of 10) were considered to have acquired the target sound in that environment and were given a code of "1." Those who produced the target sound correctly in only 20% or fewer of the tokens in that environment (in 0, 1, or 2 cases out of 10) were considered to have not yet acquired that sound and were thus given a code of "0." Those who produced the target sound correctly in 3-7 cases out of 10 were given the code "01" to indicate that they had begun to acquire the sound but were still using it alternately with nontarget renditions in that environment. Table 1 shows the pattern of English /ð/ accuracy, scored in this manner, for an illustrative sample of participants.

As Table 1 illustrates, one participant produced English /ð/ incorrectly in all environments (Participant 18) and another (Participant 16) produced it correctly in all environments. Still others alternated between the correct and the incorrect variant in some environments (Participants 2 and 17) or in all of them (Participant 30). To assign each participant to a particular level of phonological development, each participant's pattern of pronunciation accuracy (as shown in Table 1) was matched against a theoretical matrix depicting the systematic development of English /ð/ in the speech of Francophones (for details, see Trofimovich et al., 2007). This theoretical matrix, which appears in Table 2, represents 15 possible ways in which the target and nontarget renditions of English $/\delta/$ can be distributed across seven phonetic environments (from easy to difficult).

The theoretical matrix shown in Table 2 has two parts. The upper half (Levels 1–7) represents the beginning phase in the development of English $/\delta/$. In this phase, target segments (English $/\delta/$) first appear in an L2 user's speech in the "easiest" environment (voiced fricative/affricate) and then gradually emerge in each of the consecutive environments one by one, until these target segments coexist with nontarget segments (e.g., /d/ used in place of $/\delta/$) in all contexts of their use. The lower half of the matrix represents the more advanced phase (Levels 8–15). In this phase, target segments gradually supplant nontarget segments in all contexts of their use in

| which English / 0/ Appeared | | | | | | | |
|-----------------------------|----------------------|---------|-------|---------|---------|-------|---------|
| Participant | Phonetic Environment | | | | | | |
| | vd fric | initial | vowel | vl stop | vl fric | nasal | vd stop |
| 17 | 01 | 01 | 01 | 01 | 0 | 0 | 0 |
| 02 | 1 | 01 | 01 | 01 | 01 | 01 | 01 |
| 30 | 01 | 01 | 01 | 01 | 01 | 01 | 01 |
| 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

| Sample of Participants and Their Pronunciation Accuracy Patterns in Seven Phonetic Environments in |
|--|
| Which English /ð/ Appeared |

Note. 0 = inaccurate production, 1 = accurate production, 01 = variable production. vd = voiced, vl = voiceless, fric = fricative/affricate, vowel = intervocalic. Phonetic environments are arranged from "easy" to "difficult" based on cross-language phonetic similarity and lexical frequency as discussed in Trofimovich et al. (2007).

TABLE 2

A Theoretical Gradual Diffusion Framework Matrix for English $/\delta/$ Acquisition in Different Environments Over Time, Showing the Number of Participants Achieving a Given Pattern of Performance with English $/\delta/$

| Placement | Phonetic Environment | | | | | | | No. of |
|-----------|----------------------|---------|-------|---------|---------|-------|---------|--------------|
| Level | vd fric | initial | vowel | vl stop | vl fric | nasal | vd stop | Participants |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 2 | 01 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 3 | 01 | 01 | 0 | 0 | 0 | 0 | 0 | 4 |
| 4 | 01 | 01 | 01 | 0 | 0 | 0 | 0 | |
| 5 | 01 | 01 | 01 | 01 | 0 | 0 | 0 | 2 |
| 6 | 01 | 01 | 01 | 01 | 01 | 0 | 0 | 3 |
| 7 | 01 | 01 | 01 | 01 | 01 | 01 | 0 | 1 |
| 8 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 22 |
| 9 | 1 | 01 | 01 | 01 | 01 | 01 | 01 | |
| 10 | 1 | 1 | 01 | 01 | 01 | 01 | 01 | 3 |
| 11 | 1 | 1 | 1 | 01 | 01 | 01 | 01 | |
| 12 | 1 | 1 | 1 | 1 | 01 | 01 | 01 | |
| 13 | 1 | 1 | 1 | 1 | 1 | 01 | 01 | |
| 14 | 1 | 1 | 1 | 1 | 1 | 1 | 01 | |
| 15 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |

Note. 0 = inaccurate production, 1 = accurate production, 01 = variable production. vd = voiced, vl = voiceless, fric = fricative/affricate, vowel = intervocalic.

the same order across environments in which they were acquired. A participant's GDF level placement corresponds to the level in the theoretical matrix that perfectly matches or closely resembles his or her pronunciation accuracy pattern (with no more than two mismatches in the pattern). For example, the accuracy pattern shown by Participant 17 in Table 1 matches perfectly with Level 5 in the GDF theoretical matrix in Table 2. This participant was therefore assigned to GDF Level 5. The last column in Table 2 shows the number of participants (n = 45) assigned to the different GDF levels according to their speech patterns. The EGA scores were the participants' average scores across all the 9-point scale items that had loaded onto one of the four EGA constructs revealed by the factor analysis in an earlier study by Gatbonton and Trofimovich (2008). These four EGA constructs were (a) general pride about the group, about being born into it, and about knowing its history and achievement (Core EGA); (b) strength of identification with the group coupled with a positive orientation toward the L2 group (Group ID EGA); (c) belief in the importance of language in identity (Language EGA); and (d) support for the group's political aspirations (Political EGA).

TABLE 1

RESULTS

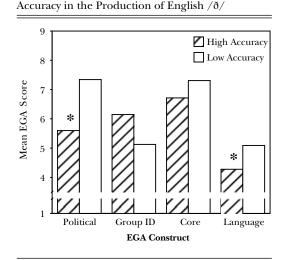
For all statistical tests reported here, the alpha level for significance was set at .05. The effect sizes reported are partial eta squared (η_p^2) . A Bonferroni procedure was applied to adjust the level of significance for all correlation analyses.

EGA and the Development of a Phonological Variable

The first question addressed in this study was whether accuracy in producing English /ð/ was significantly associated with the four EGA constructs identified by Gatbonton and Trofimovich (2008). To answer this question, the mean EGA scores for each of the four types of EGA were submitted to a two-way repeated-measures analysis of variance (ANOVA). The within-subjects factor was EGA, with the four EGA types (Core EGA, Group ID EGA, Language EGA, and Political EGA). The between-subjects factor was pronunciation accuracy with two levels (Low and High), determined by dividing the participants into two groups using a median split procedure. Those whose overall /ð/ accuracy score was at or higher than the median value of 35% correct (range: 7-99%) were assigned to the High group; the rest were assigned to the Low group.

This ANOVA yielded a significant main effect of EGA, F(1, 43) = 25.83, p < .001, $\eta_p^2 = .36$. There was no significant main effect of overall $/\delta$ / accuracy (F < 1), but there was a significant two-way EGA \times Accuracy interaction, F(1, 43) =8.26, p < .001, $\eta_p^2 = .16$. Post hoc tests exploring this significant interaction revealed significant differences between the High and the Low accuracy groups for Political EGA (p < .001) and for Language EGA (p < .05). The participants in the High group (more accurate production of English $/\delta/$) expressed weaker political aspirations for their group (5.60) and held weaker beliefs about the role of language in identity (4.28) than did the participants in the Low group (7.34 and 5.09, respectively). In other words, participants who indicated stronger support for the political aspirations of their group and greater belief in the role language plays in group identity had significantly lower levels of overall English /ð/ accuracy. There were no significant differences between these two ability groups for Core EGA or for Group ID EGA. These findings are shown in Figure 1.

The second question addressed was whether any of the EGA factors was significantly associated with the level of development attained in producing English $/\delta/$. To answer this question, the participants' mean scores for each of the four FIGURE 1 Mean Ethnic Group Affiliation (EGA) Scores (1–9) for Participants with Low Versus High Overall



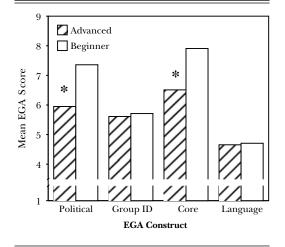
Note. Asterisks indicate significant differences between the two groups.

EGA types were submitted to a two-way repeatedmeasures ANOVA, again the within-subjects factor being EGA (Core EGA, Group ID EGA, Language EGA, and Political EGA). The between-subjects factor was the level of development of English $/\delta/$ as determined within the GDF, with two levels (Beginner, Advanced). Those whose patterns of English $/\delta/$ production were at Levels 1–7 in the GDF matrix were designated as Beginners, and those whose patterns were at Levels 8–15 in the matrix were designated as Advanced.

This ANOVA yielded a significant main effect of EGA, F(1, 43) = 25.55, p < .001, $\eta_p^2 = .37$, a significant main effect of GDF level placement, F(1, 43) = 6.97, p < .05, $\eta_p^2 = .14$, and a significant two-way interaction, F(1, 43) = 3.02, p < .05, $\eta_p^2 = .07$. Post hoc tests exploring this interaction revealed significant differences between the Advanced and Beginner groups for Political EGA (p < .01) and for Core EGA (p < .01). The participants in the Advanced group indicated weaker support for the political aspirations of their group (5.95) and a weaker sense of pride about their group (6.51) compared to participants in the Beginner group (7.36 and 7.90, respectively). In other words, participants who had higher political support for their group and who felt stronger pride in, and familiarity with, their group demonstrated significantly lower level placements in the GDF matrix. There were no significant differences between the Advanced and the Beginner groups

FIGURE 2

Mean Ethnic Group Affiliation (EGA) Scores (1–9) as a Function of Participants' Status as Beginner Versus Advanced in the GDF Level of Phonological Development for Production of English /ð/



Note. Asterisks indicate significant differences between the two groups.

for Language EGA and Group ID EGA. Figure 2 illustrates these results.

Amount of L2 Use

The third research question was whether the amount of self-reported L2 use mediated the association between EGA and the two aspects of L2 oral proficiency investigated here. To answer this question, first-order partial correlations (twotailed) were conducted to see whether the relationships between those EGA constructs and L2 oral proficiency measures that had reached statistical significance in the ANOVAs were mediated by the amount of participants' self-reported L2 use. The EGA measures were expressed for each participant as mean scores on 9-point scales. The oral proficiency score was the number of English $/\delta$ tokens produced correctly (out of 70), and the GDF score was the placement level attained (1-15). The L2 use measure was each participant's self-rating on a 0-100% scale. Table 3 shows the corresponding zero-order and first-order partial correlations (which statistically removed the effect of L2 use) among Political EGA, Language EGA, and Core EGA, on the one hand, and the two oral proficiency measures on the other hand.

As Table 3 shows, zero-order correlations revealed significant negative associations of Political EGA with overall English $/\delta/$ accuracy and also

with GDF level placement. In contrast, first-order partial correlations controlling for the amount of self-reported L2 use revealed no significant associations between these pairs of factors. These results suggest that the contributions of Political EGA to overall English $/\delta/$ accuracy and GDF level placement were mediated by the amount of L2 use.

DISCUSSION

Previous investigation of the role of EGA in L2 oral proficiency development showed EGA to be significantly associated with self- and NS-rated assessment of global proficiency such as accentedness, fluency, and comprehensibility. The present results extend the findings of these previous studies by showing that EGA also has significant associations with overall pronunciation accuracy in producing a particular phonological target (English $\sqrt{\partial}$, in this case), as well as with the level of phonological development attained with this target. The results also confirm that this relationship may be mediated by the amount of L2 use. These findings are noteworthy in that they reveal a wider influence of EGA on L2 development than has hitherto been shown and they point to a possible mechanism of how EGA might affect L2 development.

One important feature of the association between EGA and aspects of L2 oral proficiency that emerged here is its direction. This study revealed a negative association between EGA and L2 oral proficiency: The higher the participants' scores on the EGA factors, the lower the L2 oral proficiency level attained. The evidence for this was strongest in the case of Political EGA. In Gatbonton and Trofimovich (2008), Political EGA had a significant and negative association with five global measures of oral proficiency (NS ratings of fluency, accentedness, comprehensibility, selfratings, and NS ratings of global proficiency). In the present study, Political EGA had a negative association with pronunciation accuracy with respect to a single phonological target and the level of phonological development with this target. In both cases, the stronger the individual's sense of Political EGA (commitment to political positions taken by this individual's ethnic group), the less accurate the individual was in the L2 and the lower his or her level of development.

A similar link was observed between Language EGA (belief that one's language is an important aspect of one's ethnic identity) and overall English $/\delta/$ accuracy. Again, the greater the scores on the EGA scale, the lower the accuracy. Finally, a similar relationship emerged between Core EGA

TABLE 3

| | Overall Ac | curacy | Level Placement | |
|-------------------------------|----------------|----------|-----------------|---------|
| EGA Construct | Zero-Order | Partial | Zero-Order | Partial |
| Political EGA Language EGA | 50^{*} 22 | 39 10 | 41^{*} | 34 |
| Core EGA | .44 | .10 | 31 | 35 |

Zero-Order Correlations Among Selected Ethnic Group Affiliation (EGA) Constructs and L2 Proficiency Measures, and Corresponding First-Order Partial Correlations After Controlling for Amount of L2 Use

*p < .05, two-tailed, Bonferroni-adjusted.

(general pride about one's ethnic group) and the level of phonological development with respect to English $/\delta/$. The group of participants identified as "Beginner" manifested a weaker sense of Core EGA than did those identified as "Advanced." Both of these relationships were observed in the ANOVAs although they appeared nonsignificant in the correlational analysis.

Thus, of the four EGA factors investigated here, three had significant negative relationships with two aspects of L2 oral proficiency (Group ID EGA had no such relationship). This finding provides support for the claims that socially determined factors may influence not only overall L2 oral proficiency (e.g., Frassure-Smith, Lambert, & Taylor, 1975; Taylor et al., 1977) but also the development of specific features of language.

EGA and L2 Oral Proficiency

A closer examination of the relationships between EGA and L2 oral proficiency that emerged here reveals that the three EGA factors involved (Political EGA, Language EGA, and Core EGA) are united by a common underlying themenamely, a positive ethnic group orientation. Such positive orientation is usually considered as something desirable and worth nurturing. In Canada, for example, a positive orientation toward one's own ethnic group is presumed to be the basis of its official multiculturalism policy (Berry, 1983). This policy was founded on the assumption that only when the different ethnolinguistic groups making up the Canadian mosaic feel good about themselves can they become more tolerant of and be more welcoming to other groups. The reasoning is that a group's positive view of itself will lead to its maintenance, which, in turn, will awaken greater self-confidence and thus greater tolerance of other groups (Berry, 1983; Lambert, Mermiges, & Taylor, 1986). A question that arises here, then, is why this usually positive, and often desired, relationship has a negative side to it, at least for the participants in this study. In other words, why is it that for our participants, stronger positive feelings for their group are associated with weaker achievement in the target language?

Perhaps a useful theoretical framework in which to explore this question is Social Identity Theory (Tajfel & Turner, 1979) and its correlate, Ethnolinguistic Vitality Theory (Giles, Bourhis, & Taylor, 1977; Giles & Johnson, 1987). Social Identity Theory posits that individuals categorize their social world into groups and then define their social identity in terms of membership in these groups. Members' feelings about their personal relationship with their group are normally kept below the surface until an occasion arises requiring them to compare their group to another in terms of important values (Sachdev & Bourhis, 1990; Sachdev & Giles, 2004; Tajfel & Turner, 1979). Ethnolinguistic Vitality Theory (Giles et al., 1977; Giles & Johnson, 1987) describes three bases for such comparisons: status (Does one's own group have a high standing in the community?), demographics (Is the membership of one's own group large enough to keep the group viable?), and institutional support (Does the group have institutions such as the church, political organizations, and media to promote its values?). If members see their group as strong on these dimensions (which is often the case with majority groups), their feelings toward their own group tend to be positive. Conversely, if members see their group as weak and do not perceive how its vitality might improve (which is often the case with minority groups), then their feelings toward it can be negative, even to the extent that some might abandon the group and seek membership elsewhere.

Majority groups, in general, flourish from membership growth (from outsiders moving in), whereas minority groups suffer attrition (from insiders moving out). There are, however, minority groups that thrive despite their minority status (Ryan, 1977). Ethnolinguistic Vitality Theory describes the conditions that favor this situation. One condition discussed earlier is a firm belief in the group's present and future vitality. Another is the perception that there is no viable alternative to membership in this group and that, therefore, cutting links with the group is not an option. Yet another condition is the sense that the group has been treated unfairly by other groups (e.g., not accorded the respect it deserves). A final condition is the perception of the porousness of the group's boundaries such that outsiders can easily enter and insiders can easily leave for other groups. These conditions can lead members who already have a latent positive view of their group to intensify it to the point of activism (to promote the group by all means) and protectionism (to ward off any threat to its existence). If language is a strong symbol of group identity, activism and protectionism can easily focus on language so that learning the out-group's language becomes seen as a threat to the vitality of one's own group.

These four conditions seem to exist for some of the Francophones who participated in the present study. As a linguistic majority in the province of Quebec (Bourhis, 2001), where French is the only official language, the Francophone group possesses great vitality. However, surrounded by other, mostly English-speaking groups in North America, it is a linguistic minority whose vitality could be viewed as being constantly under threat, at least in the eyes of some members. Because of the need to use English in commerce and because of intermarriage and other factors, it is not surprising that some Francophones perceive the boundaries of their group to be very porous; that is, members can easily move out to join the Englishspeaking community and English-speaking "outsiders" can easily move in. Fenced in by these perceived threats to their group's vitality, many Francophones could have countered by adopting intensely protective beliefs regarding the group. These beliefs may have led them to avoid using their L2 and, as a result, to have come up short in the level of L2 oral proficiency that they could have attained.

It should be noted, however, that the association between EGA and oral proficiency is not always negative. Gatbonton and Trofimovich (2008) showed that Group ID EGA correlated significantly positively with self-rated L2 global ability. This EGA construct, however, seemed to differ from the other three by having a dual positive orientation, toward both the ethnic and the target language group, not just toward the ethnic group. In the present study, Group ID EGA did not appear to have any significant associations, positive or negative, with the proficiency variables under consideration. Perhaps it was the more global and subjective nature of the oral proficiency measures used in Gatbonton and Trofimovich's study that led to an association with Group ID EGA. Further research should examine this issue in greater detail.

L2 Use as a Mediating Variable

Another important finding of this study is the role of L2 use in the EGA–L2 oral proficiency association. In each case where an EGA measure was found to be significantly correlated with an oral proficiency measure, that association vanished when the self-reported amount of L2 use was partialled out. This finding suggests that L2 use mediates the link between EGA and oral proficiency. As mentioned earlier, Gatbonton and Trofimovich (2008), using more global and subjective measures of oral proficiency, also found L2 use to mediate the link between EGA and their proficiency measures.

The present study provides no direct evidence regarding the mechanism through which L2 use can mediate the EGA-L2 oral proficiency link. However, considering that the participants' level of development was determined through a psycholinguistically motivated framework of phonological development, it is possible to surmise that these specific psycholinguistic processing factors may be implicated. Trofimovich et al. (2007) showed that lexical frequency and cross-language similarity underlie the patterning of accurate versus inaccurate productions of English $/\delta/$ in the speech of the Francophone participants whose speech patterns matched many of the theoretical patterns predicted by the GDF matrix. The process may be that, through exposure, L2 users come in contact with many different instances of English /ð/ (lexical frequency). Doing so also allows them to make crosslinguistic comparisons that will help them become more attuned to the differences between the target sound and similar sounds in their L1 (cross-language similarity). The more L2 users are exposed to their L2, the more they avail themselves of basic psycholinguistic processes associated with constant exposure to language. Of course, the details of these processes await further investigation.

Some of the L2 users in the present study seemed to hold strong feelings about their ethnolinguistic group and viewed English possibly as a competitor instead of a complementary language, which likely led them to limit their use of English. It is reasonable to suppose that these participants' reduced L2 use resulted in their being less exposed to the psycholinguistic forces that shape oral proficiency development. In other words, compared to others who had less strong EGA views and who used the language more, these participants had fewer opportunities to hear exemplars of English $/\delta/$ and, as a result, failed to develop perceptual mastery of this sound. Likewise, by not using the language as much as they could have, they had fewer opportunities to practice speaking and develop more appropriate speech patterns. Thus, certain socially determined beliefs about one's ethnic group could be associated with reduced use of the L2 and reduced contact with its speakers, which, in turn, could affect experience with the language, resulting in poorer development of psycholinguistic perception and production processes underlying L2 oral proficiency (for a more detailed explanation, see Segalowitz, Gatbonton, & Trofimovich, 2008; see also Segalowitz, 2010).

Derwing, Munro, and Thompson (2007) provided empirical evidence for the importance of using the L2 for the development of fluency and comprehensibility in a longitudinal study of Chinese and Slavic ESL learners in Canada. These researchers found a significant correlation between NS ratings of these participants' speech samples over time and their amount of use of English outside the classroom. The Slavic speakers who reported relatively more exposure to English improved slightly in their fluency and comprehensibility, but the Chinese speakers who reported very little use of English did not. Although Derwing et al. did not examine directly the role of social factors such as EGA, their results support the claim that learners can limit their exposure to the L2 for social reasons. These authors pointed out that Chinese immigrants on arrival in Canada usually became quickly integrated into the Chinese community and, as a result, did not seek to interact a great deal with groups other than their own. Although the Slavic speakers also had close ties with their own community, they seemed more willing to seek contact with English-speaking people, with the result that they improved more in their fluency and comprehensibility in English compared to the Chinese group. Derwing et al. suggested that newly arrived immigrants gravitate toward their established ethnic groups for comfort and security reasons. However, the possibility exists that EGA issues could also feature in their decisions not to seek outside contact after their integration into their home group.

Magid's (2004) study of Chinese students in Montreal showed that, like Quebec Francophones, they attributed greater loyalty to their

peers who had stronger accents in English (i.e., to those who were less native-like) than to peers who had less accented speech (Gatbonton, 1975; Gatbonton et al., 2005). This suggests that the Chinese speakers in Derwing et al.'s (2007) study could have been affected by group identification pressures; possibly, therefore, their failure to seek more interaction opportunities with NSs was related to EGA. Further investigation of this issue will be useful. Of course, it is not inevitable that people holding strong EGA beliefs will reduce their L2 use. Some individuals may believe, for one reason or another, that using the L2 will not affect their image as a true or loyal member of their group. Some individuals may simply be highly motivated to use the language for its practical value and thus seek opportunities to use it as often as possible. Other individuals may simply not care about identity issues when it comes to using an L2. In such cases, L2 oral proficiency will improve from the benefits conferred by increased L2 practice. Such considerations may explain, for example, the presence in Quebec of many Francophones who hold strong beliefs about their ethnic group yet nevertheless speak excellent English.

Generalizability of Results

In this study, it was Political EGA that proved to have the strongest negative association with L2 oral proficiency: The stronger the views were on policies needed to protect the French language, the lower the participants' oral proficiency in English. This Political EGA factor seems to deal with concerns that are very specific to the context of the present study. For example, the items that loaded onto this factor involved concerns that are very specific to current Quebec politics (e.g., support for Quebec's separation from Canada, obliging immigrant children to be schooled in French). If these items are so context bound, then the question arises as to how generalizable the results would be to other contexts with different political and social concerns.

We believe the generalizability issue is not problematic if one considers that in multilingual societies there are always controversial issues that are of great concern to members of a specific linguistic subgroup. Gatbonton and Trofimovich (2008) speculated that the divisive nature of such issues might explain the negative correlation between Political EGA and certain oral proficiency measures. If people sense that there is a threat to their group's survival, they may view anything connected with the out-group, particularly its language, as potentially undermining their own group's stability and they may thus limit their use of this out-group's language. The specific details of what people believe may not be as relevant as the fact that the underlying issues are divisive and therefore threatening. Thus, to measure a Political EGA factor in other societies, one would have to identify the specific ways divisiveness over language manifests itself in those societies.

In creating the EGA scales for her study, Gatbonton (1975) asked 14 French Canadian speakers to indicate, among other things, what they thought characterized a true and loyal French Canadian. The items that eventually loaded onto the Political EGA scale used here were some of the items identified by this focus group as markers of high loyalty or pro-French Canadian attitude. A future study investigating the EGAoral proficiency link in settings in which political and language issues are salient, such as Belgium (Dewaele, 2005; Willemyns, 2002) or Puerto Rico (Clachar, 1997), would require a preliminary survey of this nature to identify the potentially divisive social and political issues for a contextappropriate Political EGA questionnaire.

Future Directions

The present study focused only on the four EGA factors that emerged from a factor analysis of 21 items chosen from previous studies to be appropriate expressions of feelings for, and attitudes toward, one's ethnic group. Needless to say, future studies should examine a more comprehensive selection of EGA constructs. Coupland et al. (2005) identified three essential dimensions of social identification: subjectivity (e.g., feelings of affiliation to the group, levels of commitment to the group's language); knowledge (e.g., what members know about their group and its language); and practice (e.g., activities associated with the group). The EGA constructs investigated here represented only some aspects of the knowledge dimension (e.g., familiarity with the group's achievements) and some aspects of the subjectivity dimension (e.g., positive identification with the group), leaving out the practice dimension (involvement in the group's culture and tradition). In a recent study, Ayed (2008) found that Tunisians who reported more involvement in Tunisian culture and traditions (e.g., celebrated Tunisian holidays, preferred Tunisian songs and foods to American songs and foods) significantly associated the use of American English idioms with appearing less "Tunisian" and more "American" than Tunisians who reported less involvement. This finding suggests that elements of the

practice dimension may be worth including in further examination of the EGA–L2 oral proficiency link.

There are numerous other components of EGA that could be investigated, including certain tenets of ethnolinguistic vitality (Clachar, 1997), elements related to personal conflicts and struggles arising from membership in multiple cultures, such as those identified in Ward's (2008) Ethnic Group Conflict Measures, or aspects of ethnic identity achievement manifested, for example, in efforts to learn more about one's own background (Phinney, 1992). These and other EGA components should be investigated in relation to other measures of L2 use, particularly those that assess L2 users' engagement with language in specific situations over time (Freed, Dewey, Segalowitz, & Halter, 2004), and in relation to other possible factors mediating the EGA-proficiency link. Such mediating factors might involve willingness to communicate (Clément, Baker, & Mac-Intyre, 2003; Derwing et al., 2007), perception of the socioeconomic force of accents (Norton, 2000), and motivational variables, especially integrative motivation and concept of the ideal self (Dörnyei, 2005; Dörnyei & Ushioda, 2008).

To fully understand the range of relationships that might exist between EGA and aspects of L2 oral proficiency, future studies should also investigate these relationships with other groups in other multilingual societies (e.g., for Chinese speakers of English or Arabic speakers of French in Montreal, to mention a few). An important contribution of such studies will be to document the associations between EGA and L2 oral proficiency in contexts in which there are differences in majority/minority status of the groups involved. In Quebec, for example, French is both a majority and a minority language, but this is not true for languages of other ethnolinguistic groups. The prestige value of languages can vary, too, affecting perceived and actual vitality of languages. In Quebec, both French and English are recognized as prestige languages. In many other societies, however, the minority language often has lower prestige than the majority language. An interesting population to study and compare to the Quebec Francophones would be other Francophone groups living in other Canadian provinces (e.g., Francophones in Ontario and Manitoba). Many of these groups find themselves in situations in which the fight to maintain their group and language may be more of a daily fact of life. Would this impact the nature of the ethnic identity-language link for these groups, and what consequences might this have for learning the

majority language surrounding these groups? Similar situations exist elsewhere, too—for example, with Russians in Latvia, Basques in Spain, and ethnic Germans in Russia, to mention a few. These groups are engaged in battles to assert their identities in the face of massive sociopolitical forces against them. In future investigations, it would be interesting to examine the relationships between ethnic identity and language in these (and other) contexts longitudinally, which might make it easier to uncover possible causal links in these relationships.

Finally, this study investigated only one phonological variable (English $/\delta/$) because of its potential role as a sociolinguistic marker for Francophone speakers of English. Future studies need to explore whether similar results would be obtained with other phonological variables, such as /h/ in Quebec Francophone English speech or /p/-/f/ alternation for Korean speakers of English. It is possible that only a few specific features of a language take on the role of a sociolinguistic variable (Labov, 1972b), one that is manipulated for social purposes (for expressing identity or marking class differences) or noticeably affected by social factors. Perhaps only these features are susceptible to the influence of EGA forces. Alternatively, if EGA factors affect the amount of L2 use, then perhaps oral proficiency is influenced in a more general way because the psycholinguistic consequences of reduced language use would be expected to touch many aspects of oral proficiency.

CONCLUDING REMARKS

Two findings from this study may have important pedagogical implications. One is the result indicating a negative association between EGA and the development of a phonological L2 variable. The other is the finding that language use appears to mediate this association. These findings suggest that L2 users' failure to demonstrate high levels of L2 oral proficiency do not necessarily imply a lack of ability to learn. In some cases, low-achieving L2 users may simply be curtailing their exposure to the L2 because of cultural identity concerns. If this is the case, it may be important to provide these individuals with ways to affirm their ethnic identity without it having a negative impact on their language learning success. If the amount of exposure to the target language is the means by which the links between EGA and aspects of oral proficiency operate, then perhaps teachers might be able to overcome the negative impact of EGA by maximizing the amount of genuine communicative use of the L2 in the classroom. This would have to be done in ways that optimize learners' reliance on memory, attention, and other cognitive processes underlying L2 learning so as to harness the psycholinguistic mechanisms that are normally driven by exposure frequency.

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NOTES

¹Originally eight environments were used. However, Trofimovich et al. (2007) had to drop one environment, involving liquids /r/ and /l/, due to an error in constructing test materials (see p. 436 for details).

²In an earlier version of the questionnaire, some Francophone participants showed reluctance to indicate which ethnic group they belonged to because the French translation of the phrase *groupe ethnique* means 'minority group.' Before the participants completed the questionnaire, they were reminded that the phrase "ethnic group" referred basically to the social group they were born into or claimed membership in. They were also led to note the written instruction about this in the questionnaire.

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| APPENDIX | |
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| Intervocalic | Voiceless Stop | Voiced Stop | Voiceless Fricative /Affricate | Nasal | Sentence Initial | Voiced Fricative /Affricate |
|--|--|---|-----------------------------------|-------------------------------|-------------------------------------|--|
| another father without bothered other show them to the with a | at the set the asked the not there took the up the wrapped the but this | invited the flooded the wanted the shed the instructed the satisfied the projected the shouted the | beneath the attach the | observing the supervising the | The Then They They They | choose the achieve this is there leave the above the |
| do that saw the | get the seek the | directed the beside the | | from the shone the | They They | them was there because the |

| Target English /ð/ | Tokens in Seven | Phonetic Environments |
|--------------------|-----------------|-----------------------|
|--------------------|-----------------|-----------------------|

Announcing the New Editor-in-Chief

At the end of 2012, the current editor-in-chief of *The Modern Language Journal*, Professor Leo van Lier, will step down after a 5-year editorship. Professor van Lier has been and continues to be an outstanding editor of the *MLJ*. He has maintained and strengthened its reputation as one of the most selective and respected journals in the field and has worked tirelessly and effectively to increase its worldwide visibility. The *MLJ* ranked ninth out of 93 journals in the Linguistics category of the 2009 Thomson Reuters Journal Citation Report (ISI) and had an Impact Factor of 1.914, a clear indication of its importance in the field. As evidence of its increasing global reach, the *MLJ* was also one of the top 10 Wiley-Blackwell journals in the social sciences and humanities downloaded by users in China in 2010. Following Professor van Lier's decision not to pursue a third term as editor-in-chief, a search began in the fall of 2010 for his successor and recently reached a successful conclusion.

On behalf of the Executive Committee of the National Federation of Modern Language Teachers Associations (NFMLTA), I am delighted to announce the appointment of Professor Heidi Byrnes as incoming editor-in-chief of the *MLJ*, to begin officially with the 2013 volume. Professor Byrnes is the George M. Roth Distinguished Professor of German at Georgetown University and is a distinguished scholar whose research focuses on adult-instructed second language learning and teaching. She has had a long-term and very productive association with the *MLJ* as editorial board member since the early 1990s; as associate editor in charge of the *MLJ*'s Perspectives section since 2001; and most recently as co-author of the journal's latest monograph, *Realizing Advanced L2 Writing Development in a Collegiate Curriculum: Curricular Design, Pedagogy, and Assessment.* We are grateful to Professor Byrnes for her willingness to accept the challenges of this position and to her institution, Georgetown University, for the support that they have pledged to provide her. With Professor Byrnes's appointment in 2013 we have every confidence that the *MLJ*'s reputation as one of the best journals in the field of foreign and second language learning and teaching will continue into the future.

Carol A. Klee, President

National Federation of Modern Language Teachers Associations