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CAN PEPÉ LE PEW HELP? STEREOTYPICAL ACCENT AND FRENCH PRONUNCIATION LEARNING

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This study examines the impact of stereotypical accent-based training on the acquisition of second language (L2) French pronunciation. Research suggests that L2 accent imitation in the native language (L1) benefits L2 pronunciation acquisition (e.g., Everitt, 2015; Rojczyk, Porzuczek & Bergier, 2013). This study seeks to contribute to the research in this emerging pedagogical approach and reports on its benefits for the pronunciation improvement of /ʁ/ in L2 French. Over three weeks, eleven American students received training in select characteristics of French accent and practiced their pronunciation by imitating models in three experimental groups: one in which the models spoke English with a stereotypical French accent (n=4), another where they spoke it with an authentic (i.e., non-stereotypical) French accent (n=4), and a third one modeled by native speakers of French speaking French (n=3). Students were recorded reading texts and describing pictures before and after practice. Findings from French native speaker ratings indicate no significant pronunciation improvement of French /ʁ/. Results are discussed in terms of length of training and number of features involved.

INTRODUCTION

After sitting on the 'back burner' of second language (L2) pedagogy for the first decade of the Communicative Approach, pronunciation instruction has resurfaced in language courses since the mid-1980s (Chun, 1991), accompanied by an ever-growing body of research validating its benefits (Lee, Jang & Plonsky, 2015; Saito, 2012). Although an expanding number of pronunciation instruction approaches involves technology (for a review, see Derwing & Munro, 2015 and Thomson & Derwing, 2015), many of them remain based on the traditional practice of listening to—and repeating after—models speaking the L2. These imitation tasks include shadowing, i.e., imitating a model simultaneously or after a slight delay, and mirroring, i.e., imitating exactly the speech and body movements of a model (Derwing & Munro, 2015). An emerging instructional approach has learners practice their pronunciation by speaking their native language with a second language accent. It is believed that the exclusive focus on pronunciation, unencumbered by the need to process other aspects of the language, may lead learners to develop awareness of cross-language segmental and suprasegmental differences and reproduce them in their L2 speech (Everitt, 2015). There is a growing body of experimental research investigating the impact of L2 accent imitation in the L1 on the production and perception of pronunciation features in L2 English (Everitt, 2015; Flege & Hammond, 1982; Mora, Rochdi & Kivistö-de Souza, 2014; Sypiańska & Olender, 2016) and in L2 French and German (Neuhauser, 2011). To our knowledge, Everitt (2015) is the only empirical research investigating the use of L2 accent imitation in the L1 as a pronunciation teaching and learning tool. This study—which is part of a larger one—builds on Everitt's, by investigating the benefits of this approach on the development of French /ʁ/.

Background

Imitation is at the core of human learning. By replicating the movements, behaviors and vocalizations of others, imitation contributes to the acquisition of many skills (Hauser, 1996; Nagell, Olguin & Tomasello, 1993; Zentall & Akins, 2001), including language. Infants acquire their native language by imitating speech sounds in their environment (Kuhl & Meltzoff, 1996). The pull of mimetism is so compelling that even adults tend to accommodate their speaking rate, intensity, and other characteristics of their speech to their interlocutor's (See the review of the speech imitation literature in Honorof, Weihing & Fowler, 2011 and in Rojczyk et al., 2013). It is no wonder, then, that the "listen and repeat" traditional approach to pronunciation teaching and learning (Jones, 1997) is also based on imitation. Learners are invited to listen to models speaking the L2 and imitate them as they repeat what they heard.

A variation of this approach has learners base their practice not on the L2 but on their L1. In this approach (Everitt, 2015), learners practice their L2 pronunciation by speaking their L1 with an L2 accent. Esling and Wong (1983) highly recommend this practice, as it leads learners to build awareness of the L2's voice quality settings (i.e., the position of the larynx, pharynx, tongue, etc. typical of the L2). They also suggest learners imitate an L2 accent in their L1 using a stereotypical L2 accent, as stereotypical accents "often include visible characteristic vocal postures" of a language (1983: 94).

Stereotypes are often wrapped in a negative light and subsequently rejected because of the fragmentary and reductive perspective they offer. Stereotypical accents, which are built from a selection of the segmental and suprasegmental features of an authentic accent (Kristiansen, 2001), are usually avoided in second language acquisition for similar reasons. However, they present some positive characteristics. Their exaggerated nature makes their features perceptually salient (Kristiansen, 2003), and more likely to be noticed and acquired (Schmidt, 1990, 1993). Furthermore, they are carried by the imitator's native language. The exclusive focus on pronunciation this configuration allows increases pronunciation processing ease for the learners, who do not have to additionally attend to meaning, vocabulary, grammar, etc. Finally, stereotypical accents are generally familiar to learners, who have been exposed to them from a young age through media (Lippi-Green, 1997), including movie and cartoon characters such as The Merovingian in *The Matrix Reloaded* (Silver, Wachowski, & Wachowski, 2003) and Warner Brothers' Pepé Le Pew. There is consequently a wealth of pre-existing knowledge which stereotypical accents allow to tap into, and as early as the onset of L2 acquisition (Everitt, 2015).

L2 accent imitation has been used to investigate phonological awareness both in perception and production to determine which pronunciation features were already and not yet acquired. The majority of the research examines imitation of voice onset time (VOT) of L2 stop consonants and reports general success in reproducing the feature in both the L2 and in the imitated L2 accent in the L1 (Flege & Hammond, 1982; Mora et al., 2014; Neuhauser, 2011; Sypiańska & Olender, 2016).

Flege and Hammond (1982) examined the pronunciation of L1 English beginner learners of L2 Spanish familiar with Spanish-accented English. They were interested in learners' awareness of two Spanish phonetic characteristics in contrast with English: the shorter duration of syllables in utterance-final position and the short-lag VOT (i.e., lack of aspiration) of voiceless stop consonants. Learners were successful in producing target-like syllable duration and stop consonant VOTs in both Spanish-accented English and in Spanish. The authors conclude that

since such differences are only phonetic in nature, they shouldn't represent an obstacle to VOT reduction in L2 Spanish.

While Flege and Hammond were concerned with VOT reduction from English to Spanish, Mora and his colleagues (2014) were interested in its increase from Spanish (L1) to English (L2). Learners produced significantly higher VOTs for English voiceless stops in English and English-accented Spanish than in Spanish, suggesting awareness of the L1-L2 VOT contrast. Results also showed that they were able to modify their VOTs in English-accented Spanish to the extent that they could modify them in English, indicating that the extent of the learners' awareness of this L1-L2 contrast is related to their L2 phonological development. In the present study, participants were expected to be already aware of the L1-L2 <*r*> contrast after receiving approximately 180 hours of instruction in French. However, although it is only phonetic in nature, as was the VOT contrast in Flege & Hammond (1982), French /ʁ/ is notoriously difficult to pronounce, as it involves an articulatory configuration—drawing *back* the tongue to form a pharyngeal, velar, or uvular constriction (Tranel, 1987)—that is absent from the English repertoire. The focus of this study, then, is on the production of French /ʁ/, and on the impact on its development that explicit instruction and practice through L2 accent imitation may have.

Research on L2 accent imitation in the L1 as an aid for L2 pronunciation development is scant. Everitt (2015), who investigated the impact of this aid with L1 Spanish/Catalan learners of L2 English, studied perception and production of L2 English voiced (/b/) and voiceless (/p/, /t/ /k/) word-initial stops. Although learners receiving English accent training in Spanish did not significantly outperform learners receiving English accent training in English on perceiving English voiced and voiceless stops /b/ and /p/, they produced more target-like English voiceless stops /p/, /t/, and /k/. Everitt's results strongly suggest that accent imitation is an efficient tool for L2 pronunciation improvement.

The present study is part of a larger one designed to contribute to knowledge about the benefits of L2 accent imitation in the L1 as a pronunciation learning tool. In this larger study, several characteristics of French pronunciation and their relation to accentedness, comprehensibility, and intelligibility are examined: short-lag VOT of voiceless plosives as in the research mentioned above, but also French /ʁ/, vowel stability (no diphthongization and no vowel reduction to schwa in unaccented syllables), the front vowels /ø/ (as in *peux*, may) and /y/ (as in *sud*, south), and intonation (rise/fall) on the last syllable of the accentual phrase. They are selected from an inventory of French pronunciation features that are typically difficult for L2 learners identified by Walz (1980). In the present study, results related to /ʁ/ and accentedness are reported.

Research Questions

Three groups were created to examine the research questions. Training was based on the use of: stereotypical French accent in English (Group S); authentic (i.e., non-exaggerated) French accent in English (Group A), and French accent in French, the traditional approach (Group F).

1) Does L2 accent training in the L1 favor production development of French /ʁ/ more significantly than L2 accent training in the L2? In other words, will Group S and Group A outperform Group F?

2) Does stereotypical (i.e., exaggerated) L2 accent training in the L1 favor production development of French /ʁ/ more significantly than authentic (i.e., not exaggerated) L2 accent training in the L1? That is, will Group S outperform Group A?

METHODS

Participants

Eleven intermediate French students enrolled in a French pronunciation course at an American university and five native speakers of French participated in this study. As summarized in Table 1, eight students were assigned to each of two experimental groups, and three to a control group. The production of two native speakers served as reference for the rating process, which was completed by the remaining three native speakers.

Table 1

Participants in the three groups

Experimental Groups		**Control Group**
Stereotypical Accent Group (Group S) n=4	Authentic Accent Group (Group A) n=4	French Group (Group F) n=3

Stimuli

All three groups received explicit instruction on the characteristics of French accent. As data collection is on-going, this paper reports on results associated with /ʁ/. Participants were instructed on the articulatory differences between American English and French *r*. Tranel (1987) explains that the degree of frication and voicing of French /ʁ/ varies partly according to its position in the utterance and in the syllable (i.e., its adjacency to voiced and voiceless sounds). Colantoni and Steele (2007) found that English learners of L2 French master manner before voicing, in salient position (CV, e.g., *Pa`ris*) before less salient one (VC, e.g., *sûr*, sure) due to hyperarticulation leading to the production of overly long—and consequently—devoiced /ʁ/. The participants in this study are expected to follow this pattern and receive higher scores for words featuring /ʁ/ in CV context as displayed in the left column of Table 2.

Table 2

/ʁ/ stimuli

CV n=4	**VC** n=5
Paris	*Bonjour*, hello
Entrez, come in	*Heures*, hours
Française, French	*Journée*, day
Trente, thirty	*Martin* (name)
	Sûr, sure

Training

Each group additionally underwent one weekly 20-minute session over the course of three weeks. During the session, they received further instruction about the French accent characteristics as they were featured in the speech of the models analyzed in class, which participants were to imitate during pronunciation practice at home. In Group S, the models were non-native speakers of French speaking English with a stereotypical French accent. In Group A, they were native speakers of French and spoke English with an authentic (i.e., non-stereotypical, unexaggerated) French accent. And the students in Group F based their pronunciation practice on the traditional approach by modeling their speech on that of French native speaker models speaking French. Care was taken to feature a different model for each session, as high variability phonetic training has been shown to enhance pronunciation acquisition (Lively, Logan & Pisoni, 1993; Bradlow, Pisoni, Akahane-Yamada & Tohkura 1997; Thomson, 2011).

Tests

Students were instructed to practice imitating their models at home following each session, and record their best imitation and submit it to their instructor (the author). Additionally, they recorded themselves three times: before and immediately after treatment, and a week later to measure for long-term effects. For each test, they read a French narrative and a dialogue (the same for each test), described a picture, and created a dialogue (new ones for each test). The present study reports results related to accentedness and /ʁ/ in the read narrative and original dialogue.

Rating procedure

The nine words featuring /ʁ/ were extracted from the 11 participants' recorded narrative and dialogue before, immediately, and one week after treatment. The same words from the native French speakers were added for reference. Four recordings had to be discarded due to poor acoustic quality, making them impossible to rate. A total of 347 tokens were submitted for rating to three French native speakers familiar with the speech patterns of English learners of L2 French. They each rated all tokens using a nine-point Likert-type scale (Derwing, Rossiter, Munro & Thomson, 2004) ranging from 1—"Very strong accent" to 9—"No accent."

RESULTS

The degree of agreement between judges was calculated and found to be high: the average measures intraclass correlation coefficient was .918 with a 95% confidence interval from .901 to .932 ($F(346,692) = 12.131$, $p < .001$). A one-way ANOVA revealed no significant differences between the three groups in their production of /ʁ/ at the pre-test, indicating that the proficiency level of the groups was similar before treatment ($F(2,8) = .136$, $p = .875$).

A repeated measures ANOVA with Group as a between-subjects factor and Time as a within-subjects factor was performed for subjects' average ratings on all words featuring /ʁ/. Results displayed in Table 3 indicate no significant pronunciation improvement of /ʁ/ and no significant difference between groups immediately and one week after treatment.

Table 3

Tests of Within- and Between-subjects Effects from the Repeated-Measures ANOVA (All Words with /ʁ/ combined)

Source	Type II Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Time	.293	2	.147	.499	.616	.059
Group	2.803	2	1.402	.630	.557	.136
Time * Group	.668	4	.167	.568	.689	.124

In fact, group means would suggest that in general, practice with models speaking French is more beneficial—although not significantly so—than practice with a model speaking English, be it with or without a stereotypical accent, as illustrated in Figure 1.

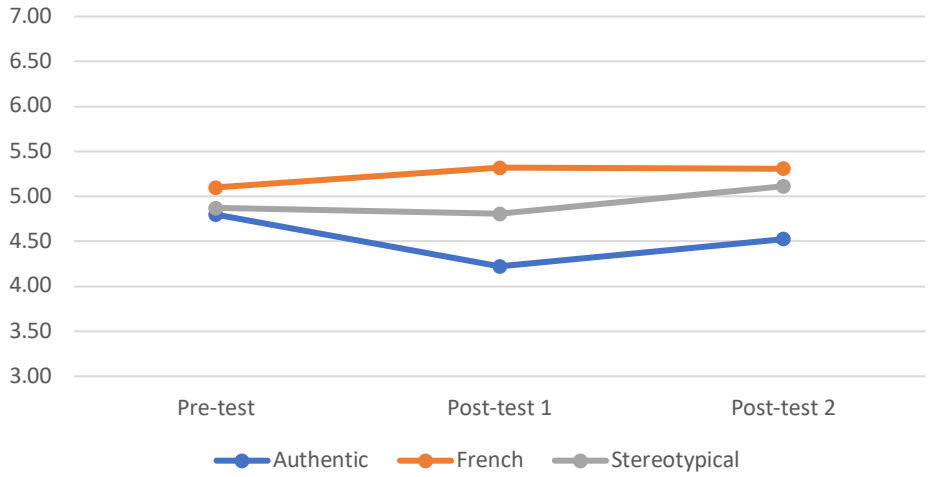

Figure 1. Group Means, Pre-test, Immediate and Delayed Post-test (All Words in /ʁ/ combined)

When breaking down the analysis by feature as in Table 4, i.e., when distinguishing /ʁ/ in CV environments from /ʁ/ in VC environments, the effects of treatment and time are still negligible.

Table 4

Tests of Within-subjects Effects from the Repeated-Measures ANOVA (Feature = CV and VC)

Source	Type II Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Time	.532	2	.266	.498	.617	.059
Time * Group	1.565	4	.391	.733	.582	.155
Feature	34.229	1	34.229	24.513	.001	.754
Feature * Group	.275	2	.138	.099	.907	.024
Time * Feature	2.379	2	1.190	2.637	.102	.248
Time * Feature * Group	1.030	4	.258	.571	.688	.125

Results for "Feature" ($F(1, 34.23) = 24.51$, $p < 0.001$, partial $\eta^2 = 0.75$), as well as Figure 2 below do indicate that regardless of practice type, all participants obtained significantly higher scores for CV than for VC environments at all times. These results are in line with those of Colantoni and Steele (2007) and confirm expectations that L2 learners of French improve their pronunciation of /ʁ/ appearing in the onset of a syllable (e.g., *Pa`ris*) before they do that of /ʁ/ in coda position (e.g., *sûr*).

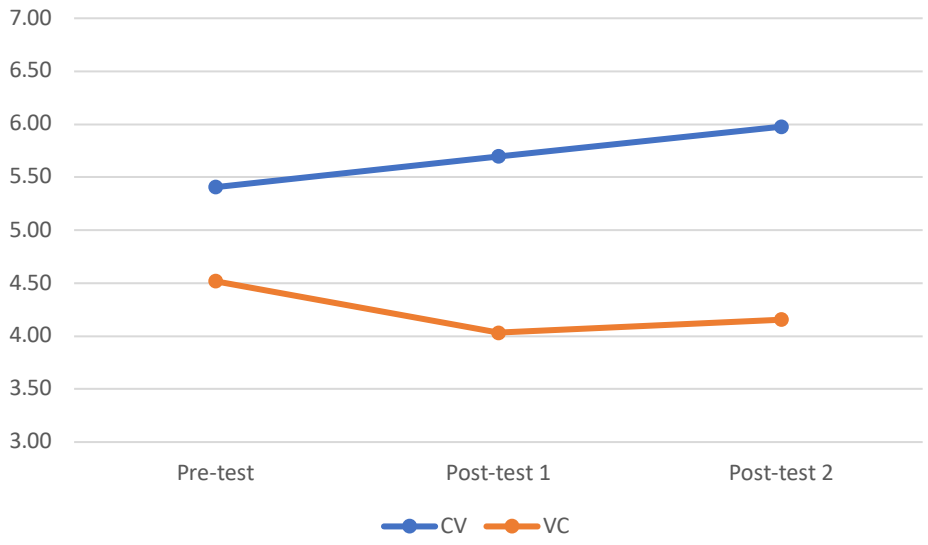

Figure 2. /ʁ/ Feature (CV and VC) Means from Pre-test to Immediate and Delayed Post-test

DISCUSSION

The absence of a significant difference between groups immediately and one week after treatment suggests that for the participants in this study, the use of stereotypical accent for pronunciation improvement of French /ʁ/ was not effective. Indeed, salience of—and familiarity with— the stereotypical version of this feature did not give subjects in the Stereotypical Group an advantage at improving their pronunciation of /ʁ/. Nor did alleviated processing of this feature, made possible by exclusive concentration on pronunciation, which could have favored both the Stereotypical and the Authentic Groups.

It is to be noted, however, that the lack of improvement on both kinds of /ʁ/ in the Authentic Group is not surprising, as only one of the three models imitated in this condition pronounced a French /ʁ/, leaving participants with considerably less practice of the feature. This makes for one of the limitations of this study, and treatment applied to additional features of French pronunciation, such as vowel stability and intonation, may yield positive results, including improved general intelligibility and comprehensibility.

Other limitations include a small number of participants, and perhaps insufficient time on task, as well as focus on too many features at a time. No significant improvement after treatment for any condition suggests that more practice may be needed. In a follow-up survey, all participants indicated that they would welcome more instruction along those lines, but over half of them (6/11, 2 in each of the three groups) explicitly suggested more training and practice. Moreover, one respondent expressed difficulty at processing several pronunciation features at once, and all of the other participants mentioned that they were grateful for the notes they had taken during training. This suggests that future treatment limiting the focus of each training session to the study of one to two pronunciation features may make for easier processing.

Finally, the results may lead us to question the popularity of this approach. Over half of the respondents who practiced with a model speaking English (6/8 respondents) said they enjoyed doing so, as it allowed them to focus solely on pronunciation. However, four of them (two in each of the Authentic and the Stereotypical Groups) reported they would have preferred practicing with French native speaker models speaking French. This sentiment is to be expected from learners enrolled in a pronunciation course, who would themselves expect practice based on models speaking French, and may not reflect the reaction of learners in courses not specifically focusing on pronunciation. Further research is, therefore, needed before it is to be considered inefficient for French pronunciation improvement.

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