

THE IMPACT OF STUDY ABROAD IN DEGREE OF FOREIGN ACCENT IN THE L2

The present paper examined the effects of the Study Abroad learning context on pronunciation accuracy. A phonetic experiment was designed to check gains in the foreign-accented speech of nine Spanish undergraduate students who resided and studied in the UK for eight months. Three native speakers of English were in charge of listening and rating samples coming from the oral narrations provided by the aforementioned students, who were recorded four times all through the entire stay abroad. Results showed that seven out of the nine students were able to diminish their Spanish accent, but some of them were perceived as being less accented than others. Results also demonstrated that some features of the English pronunciation improved more than others, suggesting that the most marked features are more difficult to acquire.

LITERATURE REVIEW / THEORETICAL BACKGROUND

The present paper aims at examining one specific linguistic aspect of second language acquisition, which is Foreign Accent, in relation with one specific learning condition, which is Study Abroad. In this introductory section, these notions will be defined and reviewed to offer the reader the necessary background to fully capture the purpose of the study that is going to be presented afterwards. First, the linguistic benefits obtained on the oral domain by Study Abroad contexts will be listed. Then, a succinct review of what is known of this context in comparison with other learning contexts will be presented, offering examples on this matter from the existing literature. Lastly, the concept of Foreign Accent will be defined, and put together with all the factors that are believed to affect this particular aspect of speech.

Study Abroad and gains in oral proficiency

Among the issues that have been of great interest in Second Language Acquisition (SLA) studies, there are the contextual settings where learning most potentially develops. Traditionally, a main distinction has been drawn between naturalistic and formal settings, but there are other contexts that have been object of close analysis like Study Abroad (SA), At Home instruction (AH) or Immersion programmes (IM). All these three contexts affect in one way or another how the learning process is carried out, and they have been often compared to find out which one provides the most advantageous conditions for this process to take place.

The first one, SA, has been thoroughly researched in SLA because of its presumed catalytic effects in the learning process of students that are immersed in the country where the target language is used. Most of these studies have dealt with overall gains in language competences (i.e. vocabulary knowledge, grammatical competence, listening skills, etc.) Maybe because of the opportunities that this particular context provides, a genuine naturalistic setting (i.e. the possibility of interacting with NSs), much of the literature has focused on speaking skills such as oral proficiency and/ or fluency, and most of it has tried to compare its effects with AH programs (Isabelli, 2003; Segalowitz & Freed, 2004; Freed & Segalowitz & Dewey, 2004; Díaz-Campos, 2004).

Freed listed the benefits of learning in a SA context in the review he wrote about the subject in 1998. These benefits included the ability “to speak with greater ease and

confidence, expressed in part by a greater abundance of speech, spoken at a faster rate and characterized by fewer dysfluency –sounding pauses”. (1998, p. 50)

In the study by Segalowitz and Freed (2004), eight different measures of fluency and oral proficiency were used to compare speaking gains obtained by native speakers of English learning Spanish in a SA context and in a domestic setting. Of these eight measures, post-test results showed that the former had a higher speech rate in words per minute, a higher number of words in both the most fluent speech run and in the longest turn, and they were the ones who made fewer filled pauses. These differences were statistically significant, but when they were correlated with amount of out-of-class language contact (i.e. extracurricular activities on speaking, reading, etc.) no significant correlations were obtained. Therefore, it was concluded that out-of-class contact could not really account for the differential gains obtained by one group over the other.

Nevertheless, different results were obtained by Freed, Segalowitz and Dewey (2004), who looked once again at various dimensions of fluency (speech rate, hesitation and filler-free speech runs, the longest run of speech without dysfluencies, and total number of words, mainly) in the acquisition of French. This time, however, they incorporated in the analysis an IM group. This group was made up of students enrolled in a 7-week intensive domestic program that comprised classroom instruction and a number of out-of-classroom activities. The Oral Proficiency Interview (OPI) was used to capture gains at the second testing time. Results demonstrated that the IM group was the one making more progress in all the fluency variables under analysis, perhaps because they were the ones with lowest scores in the pre-test. But what is remarkable here is that, in this case, positive correlations were obtained between gains in speech fluency and out-of-class contact. Unlike the previous study by Freed & Segalowitz, and strikingly enough, this one reported out-of-class writing activities being significantly associated with oral fluidity gains. When asked, learners in the IM group reported using the target language in out-of-class activities much more than any of the other two groups. In this particular study, then, it could be proved that time spent using the L2 makes a difference as far as oral fluency gains is concerned.

On the whole, however, the findings of these studies are still uncertain, and it is not clear on the light of the results reported, up to what extent a stay abroad is a better context to develop language skills than experiences at home (intensive or extensive

courses). The findings seem to suggest that other variables play an important role in the acquisition process.

Further research will also need to address areas that have received little attention within SA studies. Of particular interest is the issue of native-like pronunciation, whether learners in a study abroad situation undergo more improvement in their pronunciation than learners in domestic settings. All the recent research devoted to pronunciation in relation to SA dates back to 1996, and not many empirical studies have been conducted ever since then.

Simoes (1996) examined gains in oral skills of five adult learners of Spanish who took an SA program for 5 weeks. To do this, he focused on fluency, but he did it from the point of view of phonetics: “through phonetics of discourse I study [speaking] attributes present in normal discourse – word order, lexicon, semantics, hesitation, filling words, rhythm, stress, vowel quality, pauses, speed, accuracy” (1996, p. 87). From these attributes, stress and vowel quality are particularly revealing when trying to establish degree of foreign accent. Participants in his study were asked to carry out two interviews, one before the stay abroad and the other right after it. It was found that only two of the five subjects significantly improved their phonetic fluency. These were said to produce less use of centralized vowels and vowel lengthening.

The focus of attention in the studies by Díaz-Campos and Stevens is the acquisition of Spanish phonology by native speakers of English in SA and AH contexts, and the features under analysis comprised tongue placement in word final laterals (Díaz-Campos, 2004) and reduced voice onset time for voiceless stops (Díaz-Campos, 2004; Stevens, 2001). Stevens (2001) set out to compare the acquisition of Spanish phonology in three different learning contexts: AH, SA (for one summer) and SA (for an entire semester). Through a pre and a post-test, he found that, even though all the three groups were acknowledged to have improved their pronunciation, only the SA groups managed to produce in a more accurate way those phonemes that were more marked in Spanish, that is to say, those that differed more from the English sounds. Along similar lines, but with different results, Díaz-Campos (2004) focused on four different phonetic variants to carry out the study: word-initial voiceless stops [p t k], intervocalic fricatives [ð ɣ ʝ], word-final laterals [l], and palatal nasals [ɲ]. He also included a number of independent variables in the study (time of recording [entrance and exit test], context of learning, years of formal instruction, reported use of the target language prior to and during the

SA, level at which formal instruction began, and gender). Of these independent variables, context of learning and time of recording were selected as the most significant factors to determine a pattern of improvement in both AH and SA students. Nevertheless, no significant differences were found between the SA group and the AH group in the production of these consonantal phenomena: low and equal gains were reported for both groups in the acquisition of word initial voiceless stops and word-final lateral; no gains as for the fricatives and accurate palatal nasals at the time of the pre-test. Subsequently, it is still uncertain up to what extent L2 phonology can benefit from SA. In an attempt to further research this question, the present study seeks to measure another aspect of pronunciation in the SA context: Foreign Accent.

Foreign Accent Defined

Foreign accent can be defined as the pronunciation of a language that shows deviation from native norms. A more precise and technical definition is provided by Munro, who states that foreign accent is “non-pathological speech produced by second language learners that differs in partially systematic ways from the speech characteristics of native speakers of a given dialect” (1998, p.139). Foreign accent is a perceived phenomenon, involving both the talker and the listener. It relates to acoustic differences between native and non-native speech and its perception “leads to the realization that the talker is not a fellow native speaker” (Southwood & Flege, 1999, p. 336). These acoustic differences are to be found in segments of speech (i.e. phonemes) and also in larger chunks of speech that comprise a given number of segments (i.e. word stress, intonation). All of these have been shown to contribute to overall degree of foreign accent to a certain extent.

Before examining the impact that a SA experience can have on degree of foreign accent, it is crucial to take a look at all the factors that have been claimed to affect this phenomenon.

Factors that have been found to affect degree of foreign accent

In their review of 2001, Piske, Mackay and Flege examine a number of factors that can account for a lower degree of foreign accent in the acquisition of an L2 phonology. Among these, we find age of onset of L2 (AOL), length of residence in the L2 speaking country (LOR), gender, formal instruction, motivation and language use. Priority in this

review of the literature will be given to AOL, which is considered to be the most important factor when dealing with degree of foreign accent (Long, 1990), and LOR, mainly because it is directly related to SA. In addition to these, other individual factors will also be considered like gender, motivation and amount of L1 and L2 language use. All of these have also been found to contribute to degree of foreign accent, and we will see some examples in the remaining part of this section.

AOL refers to “the chronological age at which an individual first begins receiving massive input from native speakers of an L2 in a naturalistic setting” (Flege and Fletcher, 1992, p. 370), and it is directly related to the Critical Period (CP) hypothesis, postulated by Eric Lenneberg in 1967, that states that there is a critical period after which language acquisition becomes much more difficult. Research has tried to find out at which exact age this critical period takes place, and if there are actually several critical periods affecting different linguistic abilities (Long, 1990). Long established that a language is spoken accent-free if learned before the age of 6 on the basis of his review of literature (1990), but other ages have been suggested as well. The consensus is that the critical period begins long before puberty. This is of importance for the present study since almost all its participants began learning English in primary school, so it is taken for granted that they all have a certain degree of foreign accent. However, given that research has not been able to come up with a precise age, it is still impossible to determine up to what an extent their accents at the time of the experiment were influenced by AOL.

Flege and Fletcher (1992) examined the relationship between degree of foreign accent and LOR, among other variables. They found that individuals who had been residing in an English-speaking country for an average of 14 years had less foreign accent than individuals who had been living an average of 0.7 years. LOR then seems to be an important variable as well because it is associated with amount of language use, but as Flege and Fletcher put it, “the exact relationship between LOR and amount of native speaker input is uncertain” (1992, p. 374) because living in a foreign country does not automatically lead to interaction with L2 native speakers. However, the SA context, academic in nature, is likely to provide students with plenty of opportunities to interact with native speakers. In the present study the LOR is restricted to eight months and it is expected that students’ progress in accent will be noticeable to some extent.

The innovation of the study lies therefore in the fact that gains in the accent are only measured in relation with the study abroad experience.

Gender is another factor said to influence degree of foreign accent. In general, the findings have proved that female subjects perform slightly better than male subjects, but it has often been found that this superiority diminishes when other variables are considered (AOL and LOR, mainly). One instance of this is the study conducted by Asher and Garcia in 1969 where they examined degree of foreign accent in a group of Cuban immigrants aged between seven and nineteen who had been residing in the United States for five years. When analysing the results, they found out that more girls than boys were close to native-like pronunciation, but after considering LOR, they saw that this difference tended to disappear the longer the subjects had been residing in the L2 country. More recent research has looked at gender too and they have come up with different results. Elliott (1995) found that gender, among other independent variables, was not a predictor of pronunciation accuracy, but attitude or concern for an accurate pronunciation played a more important role.

The effect of formal instruction will not be considered here, since research has found that only special phonetic training can account for improvements in pronunciation (Piske, MacKay, Flege, 2000, p. 200-201), and the participants in this study did not follow any special phonetic training.

As far as motivation is concerned, many studies have shown that concern for accuracy in pronunciation is a significant predictor of degree of foreign accent. For example, Elliott (1995) identified motivation as a significant predictor of foreign accent in pre-test carried out by 66 undergraduate students learning Spanish as an L2. It was found that those students who were more concerned about pronunciation accuracy managed to produce more near-native sounds in the pre-test. However, from the three groups that participated in the experiment, only the two that were undergoing a special treatment consisting of formal instruction in Spanish pronunciation, managed to pronounce L2 sounds more accurately in the post-test. Bongaerts et al. (1997) also proposed motivation as the one factor explaining the good performance of late L2 learners who were capable of achieving a native-like pronunciation. They compared the ratings given to two different groups of learners: the first one consisting of late but highly successful L2 Dutch learners acquiring English and the second one consisting of native speakers of English. It was found that five out of the eleven late L2 learners were

given scores comparable to those obtained by the native speakers of English. Therefore, they provided evidence supporting the view that it is by no means impossible to attain a native-like pronunciation after the CP. To explain the results, nonetheless, they pointed out that these were highly successful and motivated learners, and so suggested motivation as one of the explanatory factors accounting for the results. They also suggested that “certain learner characteristics and learning contexts may work together to override the disadvantages of a late start” (1997, p. 462). In that respect, it might be very interesting to explore if SA is one of those contexts that helps achieving a native-like pronunciation, together with the high levels of motivation that are often associated with it.

METHOD

Speakers:

The sample for this experiment comes from a larger study including 25 Spanish students who were spending one or two semesters at the University of Southampton (UK) during 2007-2008. The speakers for this accent rating experiment include a subsample of 9 Spanish students (5 males and 4 females). All of them were completing their undergraduate courses in the University of Southampton. They come from different parts of Spain, so they all have different backgrounds (i.e. they speak different varieties of Spanish). Moreover, two of the students in the subsample come from two different autonomous regions in Spain where at least two official languages are spoken. Of these two, one is bilingual dominant, meaning she reports using more one of the two languages. The other reports using only one (Catalan), but he also used Spanish during the SA.

The speakers were carrying out different undergraduate studies at the time when the experiment took place. Three of them were doing English studies; and the others were taking studies related to engineering. This is probably the reason why they all report different levels of spoken English, but in any case these levels range from pre-intermediate to upper-intermediate.

Judges:

Three judges (J1, J2 and J3) were in charge of rating the selected samples in this phonetic experiment. J1, female, and J2, male, are originally from the United States and J3, female, is English. The three of them are currently residing in Spain and they are all teaching English to Spanish students of different backgrounds and ages. J1 and J3 have spent almost twenty years in Spain, so the accent that they have been exposed to the most is obviously Spanish. J2 has been in the country for four years and she also acknowledges that the Spanish accent is the only one she has been exposed to so far. Since they are all teachers, they are familiar with all the phonetic phenomena that will be detailed in section 2.3. It is worth noticing as well that the three of them have been additionally exposed to the Catalan language, since they have been living in Catalonia, which is one of those autonomous regions where two official languages coexist.

Stimulus preparation:

The choice of the selected samples for the experiment was the first step in stimulus preparation and it was done by looking at seven specific phonetic features believed to be especially difficult for native speakers of Spanish. Of these seven, five have been reported in the literature as important predictors of a Spanish accent (MacDonald, 1989; Magen 1998) and comprise vowel reduction, aspiration of initial voiceless stops, epenthetic schwa both in initial and non-initial position, and syllabic η . The other two remaining features chosen for the experiment are sonority of final obstruent and diphthong production. All of these are to be found at both the segmental level (affecting individual sounds) and the suprasegmental level (affecting larger units like syllables). They are summarized in the following chart:

Vowel Quality	Consonant	Syllable Structure
<ul style="list-style-type: none">• Production of diphthongs:<ul style="list-style-type: none">- ‘tail’- ‘shaking’- ‘cows’	<ul style="list-style-type: none">• Sonority of final voiced occlusive consonant:<ul style="list-style-type: none">- ‘dog’	<ul style="list-style-type: none">• Epenthetic schwa at initial position:<ul style="list-style-type: none">- ‘slicing’
<ul style="list-style-type: none">• Vowel reduction:<ul style="list-style-type: none">- ‘children’- ‘correct’	<ul style="list-style-type: none">• Word-initial aspiration:<ul style="list-style-type: none">- ‘time’- ‘cows’	<ul style="list-style-type: none">• -ed ending with epenthetic schwa:<ul style="list-style-type: none">- ‘looked’
		<ul style="list-style-type: none">• Syllabic η:<ul style="list-style-type: none">- ‘eaten’

The English vowel system is far more complex than the Spanish system. To start with, the English system is described in terms of three main dimensions related to the position of the tongue and the lips: tongue height (high / low), tongue advancement (front / back) and lip rounding, which allows for the existence of a minimum of eleven vowels. Spanish, on the other hand, has only five basic vowels. Its vowel system is centrifugal, that is, vowels are not affected by their position in the word, or by the stress

they receive. Therefore, they cannot be shortened or lengthened, like the English vowels. This is of course a problematic area for Spanish learners of English, who pronounce all vowels almost in the same way in all syllables. The same difficulty applies to diphthongs, since their quality relies on the quality of the basic vowels in the two inventories. So a word like ‘cow’ could be instinctively pronounced /kau/ by a Spanish learner, instead of the native /kaʊ/, so the feature tense/lax of the vowel would go unnoticed.

Vowel reduction is another interesting phenomenon to look at since it is especially difficult for Spanish learners precisely because of its relationship with stress patterns. In English unstressed syllables, for example, vowels are considerably reduced, so they become schwas /ə/, as in children, where the second vowel falls into the unstressed syllable: /tʃɪldrən/. Since stress does not bring about a change in the nature of Spanish vowels, a Spanish learner could easily produce the schwa as the longer vowel /e/.

In the case of voiced occlusive consonants, the problem arises when learners systematically produce the unvoiced counterpart when they find it in final position, so /g/ becomes /k/. This does not mean, however, that voiced occlusive consonants do not occur in Spanish in final position, because they actually do, especially the dental plosive /d/, as in words like ‘verdad’, ‘soledad’, etc. But of the three voiced occlusive consonants /b d g/, /g/ is the most infrequent in final position in Spanish. Hence, the word ‘dog’ was particularly useful for the rating task.

Aspiration is another revealing feature when trying to define the Spanish accent. To understand aspiration, the concept of Voice Onset Time (VOT) must be explained first VOT is a characteristic feature of occlusive consonants and it can be defined as the length of time existing between the release of the consonant and the moment in which the vocal cords begin to vibrate. While in Spanish the Voice Onset Time of /p/ /t/ /k/ is of about 5, 10 and 30 milliseconds, in English is about 60, 70 and 80 milliseconds. In terms of acoustics, this is a huge difference, but it seems to go unnoticed by less proficient learners of English, who tend to shorten the length of the VOT when producing the unvoiced stop consonants.

The insertion of a vowel in words beginning with an /s/ plus stop clusters is also very typical in Spanish learners. This schwa can also be found in the regular past morpheme ‘ed’, which is pronounced like a /t/ by native speakers of English. Spanish

speakers tend to break typical English consonant cluster such as /zd/ (as in ‘closed’) and /kt/ (as in ‘looked’) because Spanish does not allow many consonants together without intervening vowel sounds. Similarly, it does not allow for a consonant to be the centre of a syllable, which has to be necessarily a vowel. In English, however, this can happen in unstressed syllables preceded by /t d s z/, as in the example ‘eaten’ /i:tn/. This particularly salient feature could easily pose a problem for Spanish learners, who would insert a vowel between the syllabic consonant and the preceding consonant.

Once these selected samples, the next step was to extract the sounds matching these particular features. The selected stimuli were first treated using Gold Wave software in order to amplify the sounds and to diminish the noise level in the background. This was done because the type of stimuli with which the experiment was conducted was not originally intended for this purpose.

The Experiment:

The experiment was based on an extemporaneous narrative task that students were asked to carry out in English and which consisted of the description of a story involving a couple of little children and a little dog that eats their food. The prompt for the speakers was visual (see appendix 1). There were no time constraints to complete the task, which was recorded digitally. Following the same procedure, students were tested four times along the course of their studies in the UK: in September, in October, then in December and lastly in May. At each sitting, they filled in a questionnaire about biodata and attitudinal aspects and the various aspects of their SA experience, wrote a composition and completed the narrative task. The present study focuses on the narrative tasks produced in October (to be referred to as T1) and May (to be referred as to T2).

The experiment was created using the PRAAT software, a program designed to analyze speech in phonetics. It contained a total number of 36 sequences of sounds distributed in pairs. Half of these sequences comprised the first part of the test; while in the other half the same sequences were redistributed. The pairs consisted of one sample taken from T1 and another one taken from T2. These two samples, though not always identical, contained the same target sounds so that the pronunciation at the two times could be compared. For example, one pair could be ‘the little dog’ (for T1) and ‘the

dog' (for T2). The reason why the pairs under analysis were not identical lies in the nature of the elicitation task, which, as noted earlier, was extemporaneous speech.

The instructions for the judges were very simple: judges were asked to listen to these two samples, one after the other, and then they had to decide which of the two sounded less accented to them: A (the first one) or B (the second one). They were allowed to listen to each pair two more times after the first hearing. Having rated each pair, judges were also asked to determine degree of confidence in their responses using a Likert scale ranging from 1 (unsure) to 7 (sure).

The completion of the task took place in a quiet room and lasted between 15 and 20 minutes. Judges used headphones to hear the samples and completed the task alone and individually. Instructions were given to them by the researcher right before starting the test and no trial runs were provided.

RATIONALE behind THE STUDY and RESEARCH QUESTIONS

As noted in the literature review, only few studies have directly studied the influence of SA on pronunciation accuracy (Simoes, 1996; Stevens, 2001; Díaz-Campos, 2004). And even these have not looked at foreign accent per se, since they were more concerned with an improvement of L2 phonological abilities (i.e. by comparing the two learning contexts cited in this paper: AH and SA). Moreover, the target language in these studies was Spanish, not English. To my knowledge, therefore, no studies have yet measured, either objectively or subjectively, gains in degree of foreign accent in the aforementioned context.

Given that the SA context gives the learner the chance to use the target language in a wide variety of situations, it is assumed that L2 exposure will be higher and so both students' receptive and productive oral skills will benefit from this. The purpose of the present study is therefore to find out if foreign-accented speech changes in a SA experience. Specifically, the objective is to see whether foreign accent decreases in a SA experience. The paper aims at doing so by exploring the following research questions:

- Do judges find an actual and subjective improvement in foreign accented speech after the SA?
- How reliable and confident can judges be in the rating task?
- In which phonetic features (vocalic, consonantal or syllabic) do judges perceive more improvement after the SA, if any?
- Which aspects of the SA experience seem to contribute to improvement in degree of foreign accent? Do individual factors play a role as well?

RESULTS

This section gives a detailed account of the results obtained in five different but related sub-sections. The first one is devoted to the ratings of the judges in the experiment; the second deals with their degree of confidence when rating the samples; in the third one, judges' inter and intrarrater reliability is examined; the fourth section is concerned with performance in the phonetic features described in the method section, and finally, the last sub-section looks at individual subject performance.

Percentages of correct answers

For each rater, an initial percentage of the total number of responses where raters had to choose the less-accented option was calculated using SPSS. This percentage was used to see how many times raters gave a 'less-accented' value to the stimuli corresponding to the last time speakers were tested, that is, after the SA experience. This percentage was calculated twice, given that the experiment contained two series of the same 18 stimuli. Then the two percentages were added together and divided by two to obtain the average percentage.

In the case of J1, the initial percentages were somewhat varied, with values of 72.2% for the first series and 83.3% for the second series. That gives us an average percentage of 77.8%. In the case of J2, the percentages were the same for both series: 66.7%. The same happens with J3, who obtained an average percentage of 61.1% for the two series. These initial numbers show that the three raters were quite consistent in their choices and so this would imply that in a majority of cases they did find an actual improvement in the accent after the SA experience.

Analysis of goodness rating

The next step was to see how confident raters felt when making their choices. To do so, an average score number was calculated on the basis of the seven-point confidence scale that was designed for the experiment.

The first thing to note is that none of the judges reached a level of complete certainty, so they all had doubts at some point or another. On the other hand, numbers were quite similar in both series of samples, as it was expected. J1 and J2 had an average goodness rating that ranged between 3 and 4 in both series, which means they

were neither too certain nor too uncertain when it came to judging. The average confidence level for J1 was 3.6 for the first series, and 3.2 for the second. For J2 it was 4.2 in the first series, and 4.4 in the second. J3's average goodness rating, however, remained between 1.5 and 1.6, meaning she was very doubtful throughout the entire experiment. This uncertainty of hers, together with a low intrarrater reliability (see sections 3 & 4) led me to rule her out from subsequent analysis.

If we look at goodness rating for individual judges, we can observe that the average number for J1 in the first series of samples was higher than in the second, which implies that her self-confidence fell down a bit throughout the test (from 3,6 to 3,2). And even though she remains between 3 and 4 all the time, the numbers are quite varied, above all if comparisons are drawn between the series (see tables 1 and 2). In the second series, the tendency is to go to extremes, from completely sure to completely unsure, as if former doubts and guesses had become more salient.

Table 1 Goodness rating for J1 (first series)

		Frequency	Percentage
Valid	1,00	2	11,1
	2,00	2	11,1
	3,00	4	22,2
	4,00	4	22,2
	5,00	5	27,8
	6,00	1	5,6
	Total	18	100

Table 2 Goodness rating for J1 (second series)

		Frequency	Percentage
Valid	1,00	5	27,8
	2,00	3	16,7
	3,00	1	5,6
	4,00	3	16,7
	5,00	3	16,7
	6,00	3	16,7
	Total	18	100

In the case of J2, 11 out of the 18 samples in both series fall upon a goodness rating of 5 (see tables 4 and 5), which shows quite of a high degree of self-confidence. As in J1, ratings spread out in the second series.

Table 3 Goodness rating for J2 (first series)

	Frequency	Percentage
Valid		
2,00	5	27,8
5,00	11	61,1
6,00	2	11,1
Total	18	100

Table 4 Goodness rating for J2 (second series)

	Frequency	Percentage
Valid		
1,00	1	5,6
3,00	2	11,1
4,00	3	16,7
5,00	11	61,1
6,00	1	5,6
Total	18	100

Intra and interrater reliability

Pearson correlations were then calculated in order to determine up to what an extent raters were consistent with themselves in the task. As regards intrarrater reliability, then, we can see that both J1 and J2 were highly consistent at a significant level. Between the first and the second series of samples there was a correlation of 0.75 and 0.72, respectively. In the case of J3, however, the correlation did not reach 0.3. As for comparisons between raters, no significant correlations were found between any pairs of judges, which that judges rated samples quite differently from each other.

Enhanced features

To carry on with the analysis, we focused now on each phonetic phenomenon in order to see which ones had improved substantially after the stay abroad. Table 5 below shows the total number of instances for each phenomena and the number of times the raters granted a 'less accented' value to the samples recorded after the SA experience.

For example, if we take aspiration, we can see that, out of the six instances present in the experiment, J1 guessed five correctly and J2 guessed four. Therefore, out of a total number of twelve instances of aspiration (six instances per judge), nine were guessed correctly, which is in the 75% of the occasions.

Table 5 Improvement in phonetic features

	Phonetic Phenomena	J1	J2	Total
Consonantal	Sonority of final voiced occlusive consonant	5/6	4/6	9/12 (75%)
	Aspiration	2/2	2/2	4/4 (100%)
Vowel	Diphthongs	2/3	1/3	3/6 (50%)
	Vowel reduction	0/2	2/2	2/4 (50%)
Syllable structure	Epenthetic schwa (initial and final)	1/2	2/2	3/4 (75%)
	Syllabic η	0/2	1/2	1/4 (25%)

The table above shows that if we look at the ‘total’ column, an improvement seems to be often perceived in the consonantal features, especially in aspiration. Gains are more modest in the vocalic features and somewhat irregular in the syllabic features. Of these two types, vowel reduction and syllabic η are directly affected by English stress patterns, since both of them occur in unstressed syllables. Of consideration here is the fact that number of features for each dimension was not comparable.

Individual subjects’ oral performance

To find out the degree of improvement in foreign accent after the SA for each subject, the responses given by judges on the performance of each individual were multiplied by the goodness rating for each series, and then the values obtained were divided by two. The exact calculation was the following: if the judge granted the less-accented value to the stimuli corresponding to T2, that pair received a 1 value, which was then multiplied by the goodness rating. If, however, the judge granted the less-accented value to the stimuli corresponding to T1, that pair received a -1 value, which was multiplied by the goodness rating as well. Since every student was tested on two different phonetic features, this operation was carried out twice, and then both results were added together.

Here is an example: subject X was tested on vowel reduction and epenthetic schwa. For the first feature, judge X granted a less-accented value to the stimuli corresponding to T2 in the first series (1); on the scale designed for goodness rating, judge X chose number 5 ($1 \times 5 = 5$). The same was done again with epenthetic schwa, but this time judge X considered the stimuli corresponding to T1 as being less accented (-1), with a level of certainty reaching number 3 ($-1 \times 3 = -3$). We are left then with 5 and -3, which results in 2. Since there were two series in which the exact same pairs were repeated, this operation was calculated twice. Let us imagine now that the numbers for the second series are 5 and -2, resulting in 3. The next step would be to add the number for the first and the second series together ($2 + 3 = 5$) and divide them by 2, obtaining a total score of 2.5.

Table 6 shows final calculations for degree of FA improvement per subject. Figures show that out of the nine subjects taking part in the study, seven managed to produce a less foreign-accented speech. Out of these seven, J1 and J2 coincided in six out of the nine subjects. The highest score that subjects could obtain in the task is fourteen. In general, the scores were quite varied among all subjects ranging from -6.5 (the lowest obtained) to 10 (the highest obtained).

Once the scores were obtained, performance was compared by gender between the global ratings of the two judges. The scores obtained by male subjects were added together and then divided by five (the total number of male subjects in the experiment), and the same was done for the scores obtained by the remaining four female subjects. It was found that for the first judge, male learners did better than females with an average of 2, 9 and 1, 6 points respectively. For the second judge, however, females did better than males with an average of 7, 4 and 4 points respectively.

The last analysis consisted in identifying two students who underwent the most improvement in FA according to the two raters and two students who underwent the least improvement. Comparisons were drawn again between the scores given by the two judges (table 7) and it was found that S4 and S20 had a clearly less-accented speech (see yellow highlighting in table 7), and that S10 and S25 had barely improved in any of the features being tested according to the two raters (see red highlighting in table 7). The former (S4 and S20) were a male and a female subject, and the latter were two male subjects (S10, S25). The remaining five subjects were given scores that were not comparable between the judges.

DISCUSSION

To try to understand the results, we will go back to the factors that were said to affect degree of foreign accent in the literature review and these will be related to the information provided in the questionnaires, which included biodata, as well as information about L2 attitudes and their L2 experience. In this section, all the factors that have been proposed as important predictors of degree of foreign accent will be discussed in relation with the results obtained, namely AOL, LOR, gender, motivation and language use.

We began looking at AOL as an important predictor of foreign accent, and in the literature review it was established that after the putative Critical Period it becomes much more difficult to get rid of accented-speech. If we focus on the four students mentioned before (S4 and S20 & S10 and S25) who underwent the most and the least improvement we find that S20 was exposed to English from birth since she has an English mother. She grew up in Spain but she reports having traveled to England every summer ever since she was born. Student 4 was first exposed to English in the first cycle of primary school, when he was just 6 years old. This is the age at which according to some researchers (Long, 1990) the CP begins. On the other hand, S10 and S25 report having had their first exposure to English at the age of 10. Therefore, our findings would support the view that the earlier in life the exposure to the L2, the better for its pronunciation (Asher & García, 1969; Flege & Fletcher 1992). Nevertheless, the size of the group is too limited to render valid any discussion of the age factor. Moreover, the factor to be taken into account here is not strictly AOL, since in the case of S20 this implied a first contact with the L2 in a naturalistic setting, which was not the case for the other three students.

If we now move on to the impact of LOR, we can see that in the present study, and on the light of the results reported, there seems to be a clear improvement in three out of the six phonetic features under study, so it is suggested that eight months do make a difference in the accent. It is still uncertain, though, up to what extent different lengths of stay abroad can affect pronunciation. In fact, when considering LOR, it is necessary to look at other studies with different LORs being tested in order to see if a stay abroad of eight months is sufficient to develop enhanced oral skills. In the study by Stevens (2001) commented in the review, there were two experimental groups of

students who went abroad for different periods of time. The first one stayed in the L2 country for three months, and the second one for one semester. Despite the difference in length, no significant differences were found between the two. Only when compared with the control group (AH), significant differences emerged. An explanation for these inconclusive findings might be found in individual factors. Many studies, for example, have reported an effect of AOL that has not helped to prove that LOR can have a direct impact on pronunciation. In the study by Asher and García, it was found “an inverse relationship between age when the child entered the United States and the acquisition of a near-native pronunciation” (1969, p. 340). The younger the child when entering the L2 country, the more probable was for them to reach nativelikeness. In this sense, it is particularly revealing the fact that the one student in the present study having the highest score (S20) reported the earliest exposure to the L2.

Another variable that has been considered in the results section is gender. As reported in the previous section, judges did not reach an agreement as to who performed better in terms of gender, but this might have been so because the size of the population was too small. However, it should not go unnoticed that the students who were given lower grades by both judges, that is, S10 and S25, were male subjects. This would go in accordance with the general tendency described in the literature of female learners performing slightly better than male learners, but these results are by no means inconclusive with a population of only four subjects.

The other two remaining factors to be discussed are motivation and language use. Motivation will be considered according to the two types proposed by Gardner (1959): integrative and instrumental motivation¹; language use, on the other hand, will be considered on the basis of amount of L1 and L2 input and output in three different contexts: at home, at the university and at the weekend.

S20, one of the two students who improved the most, was doing a degree in English studies, and unlike the other students taking part in the experiment, she has an English background. Her mother is English and she reports having travelled to the UK every single year ever since she was born. She does not report having had extra curricular classes of English in the past, but she does report being in possession of the

¹ The notions of integrative and instrumental motivation were proposed by Gardner, R.C. in *Motivational variables in second language acquisition*. Canadian Journal of Psychology: 13. 1959. Integrative motivation refers to the need of the learner to speak an L2 in order to communicate with people from another culture. Instrumental, on the other hand, refers to the need of the learner to speak an L2 in order to achieve certain utilitarian purposes such as getting a job, open a bank account, etc.

Cambridge Advanced in English (CAE) certificate before starting the SA experience. From an integrative point of view, she regards her learning of the L2 as very useful to travel and interact with people from the UK and from different countries. From an instrumental point of view, she regards English as essential to help her with her studies and professional career. She also shows concern for improving her orals skills. Table 7 shows some of her responses to these aspects:

Tables 8 and 9 Motivational aspects for S20

Reasons to take the SA programme	NIA	NI	NVI	SI	I	VI
To meet English people				X		
To meet people from other countries						X
To improve my English						X
To improve my CV						X

Reasons to study English	NIA	NI	NVI	SI	I	VI
To meet people from other countries						X
To get to know better the British culture					X	
To help me with my studies					X	
To help me find a better job					X	

NIA = not important at all; NI = not important; NVI = not very important; SI = somewhat important; I = important; VI = very important

During the SA, she lived in a single room in a hall of residence. She reports a high use of the L1 at home, at the university and at the weekend, at least during the first months of the stay abroad until December. The only contact she had with native speakers was with two English neighbors living in the same residence hall. In the questionnaire administered in May, she starts reporting a higher use of the L2, comparable to that of the L1. It is worth mentioning here, though, that no all the speakers with whom she established a connection were native speakers of English. As far as extra curricular activities, she went to the theatre, and she went to several trips. She barely watched television or read books and newspapers during he stay. We can conclude therefore that most of the L2 input she received was in the instructional setting.

S4, the other student with a major improvement, was doing a degree in Engineering. His level of English before the SA experience was already high, since he had reached the fifth level at the Escola Oficial d'Idiomes (EOI). In the very first questionnaire administered in October, he reveals a very positive attitude towards the learning of the English and the SA experience. Like S20, he is highly motivated both in the integrative and the instrumental reasons; nevertheless, unlike her, he is not very enthusiastic about meeting English people or exploring the British culture.

Tables 10 and 11 Motivational aspects for S4

Reasons to take the SA programme	NIA	NI	NVI	SI	I	VI
To meet English people		X				
To meet people from other countries						X
To improve my English						X
To improve my CV						X

Reasons to study English	NIA	NI	NVI	SI	I	VI
To meet people from other countries						X
To get to know better the British culture		X				
To help me with my studies					X	
To help me find a better job					X	

NIA = not important at all; NI = not important; NVI = not very important; SI = somewhat important; I = important; VI = very important

As for language use, S4 reports a very high use of the L2 throughout the entire stay in all the three contexts (at home, at the university and at the weekend). He shared a flat with four other students coming from different European countries. English was spoken all the time, even with one of his Spanish flatmates, with whom he alternated between the L1 and the L2. In addition to this, in the questionnaire that was administered in December, he shows some frustration in not getting enough contact with native speakers, which he would like very much. This means that he progressively found it more and more important to meet English people. Apart from this, he received a lot of L2 input from the media, especially TV, though films and TV series.

If we now compare the two profiles described above, we can see two main differences: S20 was exposed to the L2 from birth, whereas student 4 was not; S4 used the L2 most of the time, whereas S20 did not. Therefore, AOL and language use together with high levels of motivation, seem to be the relevant factors who would help explain the good performance of these two particular subjects. The focus of attention will be turned now to the students who got lower scores in the experiment: S10 and S25.

S10 was doing English studies during the SA. He had not been abroad before, and he does not report having had extra lessons apart from school instruction. From his initial questionnaire, it is clear that his motivation was also very high in all respects, and like S4, he was not very keen on meeting native speakers.

Tables 12 and 13 Motivational aspects for S10

Reasons to take the SA programme	NIA	NI	NVI	SI	I	VI
To meet English people			X			
To meet people from other countries						X
To improve my English						X
To improve my CV			X			

Reasons to study English	NIA	NI	NVI	SI	I	VI
To meet people from other countries						X
To get to know better the British culture				X		
To help me with my studies						X
To help me find a better job						X

NIA = not important at all; NI = not important; NVI = not very important; SI = somewhat important; I = important; VI = very important

With regard to language use, he used the L1 a lot more than the L2. He restricted the use of the L2 in the home setting during the whole SA, resorting to the L1 at the university and also during the weekends. Moreover, he reports that his use of the L2 at home was scarce. In spite of this, he acknowledges that his level of English is getting better: “I am really learning a lot of English, I am acquiring fluency and a better pronunciation, adding it some vocabulary” (taken from the questionnaire administered in December).

S25 was doing Engineering at the time of the SA and he was working on the final project. Of the four students, he is the only one coming from an autonomous Spanish region where two official languages are spoken: Spanish and Catalan (from Valencia). Nevertheless, he does not report any use of Catalan. On the basis of the first questionnaire administered in October, it is gathered that he was highly motivated too. In tables 14 and 15, some of his responses are presented.

Tables 14 and 15 Motivational aspects for S25

Reasons to take the SA programme	NIA	NI	NVI	SI	I	VI
To meet English people						X
To meet people from other countries						X
To improve my English						X
To improve my CV						X

Reasons to study English	NIA	NI	NVI	SI	I	VI
To meet people from other countries						X
To get to know better the British culture		X				
To help me with my studies					X	
To help me find a better job						X

NIA = not important at all; NI = not important; NVI = not very important; SI = somewhat important; I = important; VI = very important

Unlike the other three students, S25 shows a more varied and balanced use of both the L1 and the L2, alternating between the two in all the contexts. He reports being in touch with people from different nationalities, including English students. He also receives daily input from TV series. Of the four students, he is the only one expressing his anxiety towards the completion of the final project for his degree. He reports not having had the necessary help to work on it and this clearly worried him and probably made him anxious during most of the SA. This could have had an impact in the development of his overall linguistic skills.

From the description of the four profiles presented above it can be concluded that motivation does not seem to be a determining factor in explaining the results obtained in the experiment. The four students were highly motivated, both in the

integrative and the instrumental domains, so it is uncertain up to what an extent motivation played a role in their performance on the task. Language use, on the other hand, seems to be a significant factor if we only compare S4 and S10, who report a considerably different amount of L2 use and exposure. However, it does not explain why S20, who clearly made more use of the L1 throughout the SA, received such a high score on the task. The only factor that differentiates S20 from the other students is the fact that she was exposed to the L2 from birth might have helped her easily focus on more subtle areas of pronunciation, since she might have already developed some of the L2 phonological categories. As for the other successful student, S4, his improvement in accent might be attributable to a high use of the L2, plus the SA context, which would have compensated for his later exposure to the L2.

METHODOLOGICAL ISSUES

When interpreting the results, a couple of methodological issues must be considered. First, the stimuli on which the experiment was based were not the intended for the purpose of this particular task. Even if the sound of the recordings was treated to make it more easily audible, there were some differences in the quality sound of the samples that could not be completely balanced. Hence, we cannot be certain that the results would have been different if the sounds had been elicited solely for the goals of this task. J3, who was ruled out from part of the analysis, claimed that she had had a lot of difficulties when listening to the samples. J1 and J2 also reported having some trouble while carrying out the task, but it was clear on the light of the results, that they felt more confident than J3. The difficulties reported might have prevented the judges from noticing very subtle differences between the stimuli that might have led to different ratings.

The other issue to bear in mind is the low degree of interrater reliability among the judges. Ruling out J3, we were left with the ratings of J1 and J2, whose ratings did not correlate with each other. It is difficult to understand such discrepancy. It seems as if they used different criteria to rate the samples, and so more judges would have been needed in order to find patterns that help better explain the results. However, other studies that have used a higher number of judges have encountered the same problem. In one study by Munro & Derwing (1995), for example, it was found that judges' correlations on accentedness and comprehensibility differed a great deal from one another. So it seems that judges place more or less importance to difference factors when making judgments. Therefore, one can conclude that more research is needed to assess the judges' perceptions on different oral tasks. Maybe in the case of J1 and J2, the determining factor was their backgrounds. The fact that one of the judges was American and the other English might have had an impact on their ratings, as suggested by previous studies comparing judges with different backgrounds. For example, Flege, Frieda & Nozawa (1997) compared the ratings given by native speakers of Canadian and Alabama English, on accented speech produced by non-native Italian speakers. It was found that the Canadians were more accurate in their ratings, meaning that they were better able to detect degree of foreign accent than the Americans. Background, then, seems to play an important role in the rating tasks. Long (1990) already

established that the more accents the judges are exposed to, the more tolerant they unconsciously become towards them. The three judges taking part in the experiment had had experience with a number of different accents and people from different backgrounds, so their judgments might have suffered this effect.

CONCLUSION

The present study has tried to ascertain up to what an extent a SA experience can bring about improvements in the foreign-accented speech of Spanish students learning English. The findings reported here have demonstrated that, for the population studied, there was an actual decrease of degree of foreign accent. This decrease, however, was not homogeneous among the students, meaning that some improved a lot while others improved little or very little. The findings have also evidenced the need for more judges to evaluate degree of foreign accent in this type of task. The interrater reliability was very low between the three judges and this rendered it almost impossible to draw any reliable comparisons between their ratings.

Even though the limitations described in the previous section preclude the possibility of generalizing the findings reported, the results also suggest that context of learning per se does not grant an enhanced pronunciation. Rather, it is suggested that context together with certain individual factors (age of first exposure to the target language and language use, mainly) can account for improvements in pronunciation. These improvements have been more noticeable in certain phonetic features than in others (i.e. consonantal phenomena), which suggests that, from a formal generative approach, some features are more marked than others and so more difficult to acquire (i.e. vocalic and syllabic phenomena).

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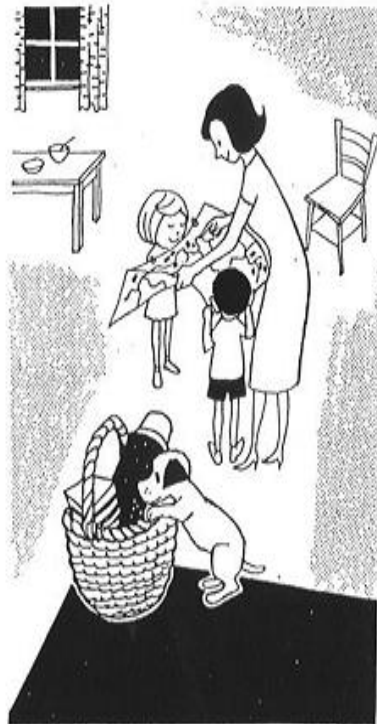
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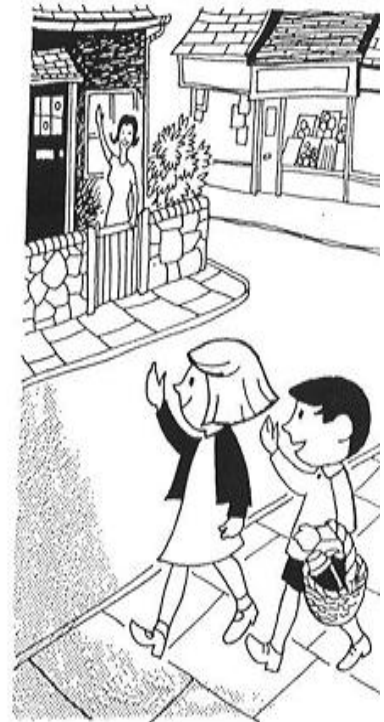
APPENDIX 1



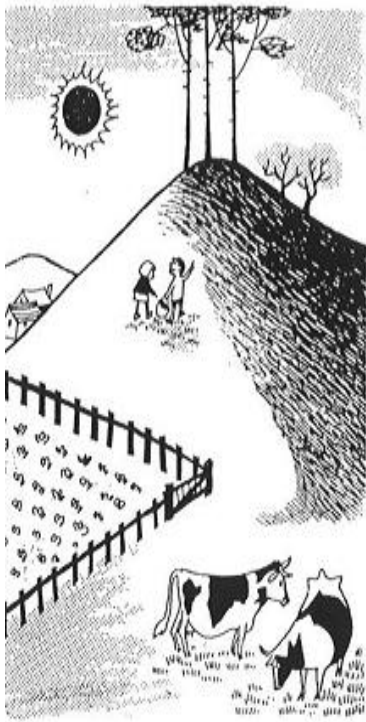
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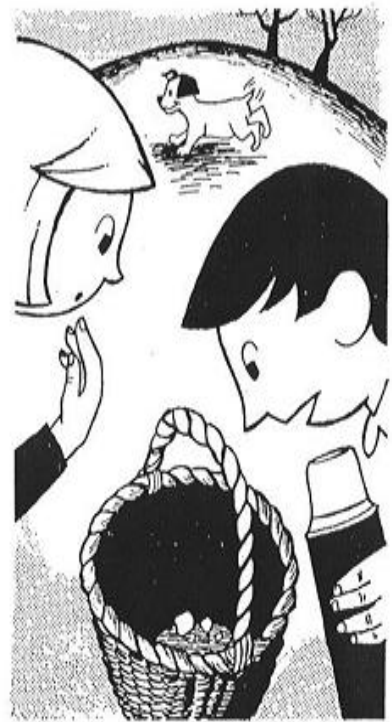
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