

PRONUNCIATION ANXIETY, PRONUNCIATION-RELATED VIEWS AND PRONUNCIATION LEARNING ACTIONS OF EMI AND ENGLISH MAJOR STUDENTS

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Abstract

The present study explored pronunciation views, learning actions and anxiety in two differentiated English learner groups: one group which was studying English in an engineering degree and another group enrolled in an English major degree. The results from a questionnaire and focus group sessions revealed that the groups share some views such as a wish to improve their English pronunciation and adherence to native pronunciation references as well as pronunciation learning actions such as watching series or talking to native speakers. However, we also observed significant differences between the groups as the English major students tended to view pronunciation learning as a discipline, while the engineering students saw it as a communicative skill. The English majors also exhibited more pronunciation anxiety, specifically fear of ridicule and worry of making mistakes. They also revealed more anxiety-related themes in the focus group discussions such as worry about their pronunciation, pronunciation shame or unease because they do not know how to pronounce a word or cannot understand. Finally, the English major group was also more demanding of lecturers' accurate pronunciation. These results suggest that differences regarding English pronunciation anxiety between different learner profiles may need to be considered during their English language learning progress.

Key words: pronunciation, pronunciation anxiety, interlocutor anxiety, EMI

1. Introduction

As English has established itself as a language of international communication (Galloway & Rose, 2015; Jenkins et al., 2018), it can be expected that learner attitudes vary depending on their English learning context. Students learn English in different settings and for different purposes, such as specific technical purposes (ESP), English as a foreign language (EFL), or English as a second language

(ESL). Moreover, in the last decades there has been a noteworthy increase in the teaching of other subjects through English, both at primary and secondary schools, where it is usually referred to as Content and Language Integrated Learning (CLIL), and in tertiary education, where more and more universities around the globe are implementing English Medium Instruction (EMI) programmes as part of their internationalization strategies (Macaro, 2022).

One aspect of English which has clearly been impacted by its international status is pronunciation. Despite the fact that pronunciation can be described dually as i) the management of the speech elements of one particular language/phonological system and ii) oral convention to achieve meaning and (self-) expression (Giora, 1972; Dalton & Seidlhofer, 2001; Müller, 2013; Setter, 2008), L2 pronunciation has traditionally been interpreted in light of the former descriptor. This means L2 pronunciation tended to be judged in comparison to a native-speaker norm, as a specific level of phonological competence, which has traditionally been a target in foreign language learning and teaching. However, the multicultural and globalist world in which we live today along with the international status of English has provoked a reconsideration of such pronunciation duality: Is L2 pronunciation learning the pursuit of a specific native phonological competence or is L2 pronunciation learning the search for oral communicability and expression (Levis, 2020)? Some research has looked into the pronunciation models that speakers of the 21st century refer to (Dziubalska-Kołodziej & Przedlacka, 2008). Research has also provided evidence for the existence of a supraidentitarian variety of English, which does not associate itself with specific cultures or speaker communities, called International English or Global English, whose phonological structure has even been described (Jenkins, 2000). In fact, recent authors have advocated the Intelligibility Principle, which recognises that variation is not necessarily a barrier to communication, and have argued for the abandonment of a Nateness Principle, which consigns L2 pronunciation perfection to a certain variety, when inspecting contemporary English pronunciation teaching and learning goals (Levis, 2020; Rose & Galloway, 2019). Hence, inspecting different learners' pronunciation views, attitudes and anxiety becomes interesting to explore when English is present in such international contexts. While a number of studies have investigated EFL or ESL learners (e.g., Doiz et al., 2012; Kang, 2015; Levis, 2015; Pawlak et al. 2015; Syszka, 2016), fewer studies have focused on EMI learners (Barrios et al., 2022; Henderson, 2019; Hendriks et al., 2021; Karakas, 2017). To fill this gap, the present study intends to explore differences between two English learner profiles who experience English learning in two different contexts: one group is learning English in an English major degree, developing expertise on the language itself as well as linguistic and literary aspects related to it, while for the other group English is the communication means during lectures in an engineering degree as part of an internationalization programme. It intends to explore differences in how they view pronunciation learning, their actions to improve

English pronunciation as well as their pronunciation anxiety depending on the interlocutor, mainly the teacher, national international peers as well as local peers, with whom they interact in their EMI programmes.

2. Pronunciation views in different learner populations

Learners' perceptions, beliefs and attitudes about their language learning experience have long been researched (Horwitz, 1988). More specifically, learners in different learning contexts have informed research of their views on English pronunciation learning (Kang, 2015; Levis, 2015; Syszka, 2016). A considerable number of studies has explored views of tertiary education learners who are taking English or linguistics degrees. These student profiles appear to find good pronunciation important (Pawlak et al., 2015; Cenoz & García Lecumberri, 1999; Nowacka, 2001) and set and demand native standards (Doiz et al. 2012; Lasagabaster & Sierra, 2002; Nowacka, 2012). Some studies have shown that the metaphonetic awareness which these learners gain during their English studies is positive (Cenoz & García Lecumberri, 1999; Nowacka, 2012; Pawlak et al., 2015). Finally, some studies have reported that these students became more tolerant of non-native accents as they gained expertise in the language (Waniek-Klimczak, 2005; Waniek-Klimczak et al., 2014; Lintunen & Mäkilähde, 2018). The internationalization of English has also recently given way to a group of students who learn English while they learn other contents in secondary education (CLIL) and tertiary education (EMI). This rather recent group of learners have been surveyed on pronunciation views in some few studies in which themes such as dissatisfaction with lecturer foreign accent (Barrios et al., 2022; Henderson, 2019; Hendriks et al., 2021; Karakas, 2017) or a preference of fluency over accuracy (Chou, 2018; Gómez-Lacabex & Gallardo-del-Puerto, 2021; Gómez-Lacabex & Roothoof, 2023) have been identified.

Few research conducted into English learners' views, perceptions and expectations about pronunciation has also compared populations or learner profiles. In a study exploring different learners experiencing English learning according to the presence of the language in the community, Kang (2015) observed different viewpoints on pronunciation depending on their learning experience. She found that English learners in countries such as the USA or New Zealand, where English is spoken in the community, as well as English learners in Japan and South Korea, where English is mainly taught as a foreign language (EFL) were more dissatisfied with their pronunciation learning than English learners in South Africa or Pakistan, where English is a co-official language. Interestingly, the first two groups of learners complained about the fact that accent variability and/or International English was not included in their pronunciation curricula. This fact did not bother students in contexts where English is studied as a second language, a context likely to have integrated a higher tolerance to accent given that English has already permeated the recipient/host culture. Another study

which has examined pronunciation views according to different learner profiles is that of Waniek-Klimczak and Klimczak (2008). These authors hypothesized that differences can be expected between learner populations who differed in language experience and expected use in the future. Hence, they selected English philology students versus economics and sociology students in an international programme, in which English is the language of instruction. These two groups of students represented a different English language learning experience during their tertiary education and the former became metalinguistically aware while for the latter English was mainly a communication vehicle in their specialities. The results indicated that the two populations did not differ in the choice of standard variety (British over American) and the degree of importance given to pronunciation, both groups indicating that pronunciation is rather important for communication. Interestingly, the differences found in this study had to do with the dual interpretation of pronunciation presented above, as the economics and sociology students were less interested in targeting native-like pronunciations and expected variability while English philology students indicated that native-like pronunciation was a target for them and they expected consistency in one variety.

3. Pronunciation learning actions and pronunciation anxiety

As learners progress in the learning of a second language, the development of oral communication skills is considered essential. These involve integrating the phonetic-phonological system of the L2 as well as becoming ready to communicate in a new language, which integrates individual and environmental features as well as linguistic ones (MacIntyre et al. 2001). Much of this progress may be done autonomously, sometimes in the form of learning actions or strategies which the learner decides to activate to enhance their learning experience (Oxford, 1990). As Pawlak and Szyszka (2018) have recently highlighted, pronunciation improvement can be considered autonomous language learner work, given reasons such as the varied goals each learner may have and/or the little time this aspect is catered for in the classroom. While interesting work on pronunciation learning strategies is being conducted with English majors (Szyszka, 2014; Pawlak, 2011), secondary students (Jarosz, 2021) or EFL learners (Sardegna, Lee & Kusey, 2018), the EMI population or potential differences between populations have not been considered so far.

Speaking in the L2 has been reviewed as a frequent source of anxiety (Philips, 1992; Szyszka, 2017; Tsang, 2020) and pronunciation is frequently mentioned as a speaking anxiety contributor (Chou, 2018; Derwing & Rossiter, 2002). In fact, recent research, mainly conducted by Baran-Łucarz (2011, 2013, 2014), has attempted to conceptualize pronunciation anxiety. Baran-Łucarz and Lee (2021) indicate that the construct of pronunciation anxiety can be interpreted along the following four aspects i) fear of negative evaluation from different interlocutors (peers, teachers), ii) how the learner perceives their own

pronunciation efficacy, iii) pronunciation self-image, or how the learner interprets their appearance while they speak and how ready they are to accept such an interpretation and, finally, iv) learner beliefs about the phonological detail of the L2. Research conducted on this construct seems to suggest that anxiety and pronunciation competence (self-perceived in many of the studies) correlate negatively, that is, low anxiety profiles are associated with higher pronunciation competence (Baran-Łucarz, 2011; 2013; Szyszka, 2011). In the case of English major students, phonetics learning anxiety was found to hinder pronunciation (Baran-Łucarz, 2013). L2 pronunciation has also been associated with affective state as it can worsen when the speaker is nervous or it can improve when the speaker is excited (Derwing & Rossiter, 2002). Garrett and Young (2009) also suggested that negative feelings could cause pronunciation difficulties in the L2. Learners have also been found to be willing to underperform their pronunciation skills evincing the power of peer pressure and social approval in oral communication exchanges (Lefkowitz & Hedgcock, 2002). Indeed, Szyszka (2017) has recently proposed to integrate the affective domain in the teaching of pronunciation. Also recently, Baran-Łucarz and Lee (2021) have found that willingness to communicate was a stronger determinant of pronunciation anxiety than variables such as foreign language enjoyment, having studied abroad or having had prior experience with a native teacher. Such recent and thriving research seems to indicate that we should associate pronunciation closely with communicability and expression (intelligibility principle) both in research and teaching. In this study we intend to explore possible differences between two English learner populations on account of one of the pronunciation descriptors in Baran-Łucarz and Lee (2021): interlocutor anxiety.

4. Method

4.1 Research questions

The following study intended to explore possible differences between two English learning populations' attitudes on pronunciation, pronunciation learning actions, their degree of pronunciation anxiety with regard to different interlocutors and their views on pronunciation during classroom interaction. The following research questions were put forward:

RQ1: Do the EMI and English major students present different views and learning actions towards pronunciation?

RQ2: Do the EMI and English major students differ in their level of pronunciation anxiety depending on the type of interlocutor?

RQ3: What are the views of EMI and English major students' views on pronunciation in the classroom? What are their attitudes towards their lecturers' pronunciation and why?

4.2 Participants

The study counted on 183 participants enrolled at two Spanish universities. 126 of them were enrolled in an engineering degree and 57 were enrolled in an English studies degree. The engineering sample were both industrial engineering students (n. = 77) and computer science students (n. = 49). Those students in the engineering degree were required to prove that they had at least a B2 level of English to be able to enrol in the international degree (English is the main vehicular language) they attended. The students in the English studies degree were in their second or third year. They were not required an English level for the degree but must have passed a B2 level exam in first year. As can be seen in Table 1, despite some slight differences between the groups such as the fact that there were more male respondents in the engineering group and the English studies group presented more Basque L1 speakers, both groups had had similar considerable prior experience to English integrated programmes (CLIL), mainly in secondary education, and they self-reported their level of English rather similarly as well, the majority of the group indicating a C1 level.

Table 1: Profiles of the EMI and English major learners

	Engineering	English major
n./year course	183/ 1 st :58 2 nd :38 3 rd :30	57/ 3 rd :52 4 th :5
Mean age	18.5	21
Gender %	Male:58 Female: 31 Non-binary:5.5 Not specified:5.5	Male:17 Female:75 Non-Binary:1,8 Not Specified:5.3
L1/s%	Spanish:76.2 Basque: 15.1 Russian:0.8 Ukranian:0.8	Spanish: 44 Basque:44 Italian: 3.6 Azerbaijani: 1.8
prior CLIL%	69	47.3
English proficiency level%	B2:39.7 C1:51.6 C2: 8.7	B2:21.2 C1:75 C2:3.8
When started learning English%	Preschool:68.3 Primary:31.7	Preschool:51.1 Primary:43.8

4.3 Instrument and procedure

After ethical approval and informed consent from the students were obtained, the data was collected by means of a pen-and-paper questionnaire (see Appendix) and a number of focus group sessions, in which small groups of students shared their views about different issues related to pronunciation. The questionnaire consisted of 9 items for the part about pronunciation views, and 7 items related to pronunciation anxiety, which were presented in a box format so that students could reply to each of these items for four different interlocutors (this makes a total of 28 items for pronunciation anxiety). For this study, items which explored students' wish to improve and develop English pronunciation skills (i.e. *I would like to improve my English pronunciation*) and adherence to native-speaker norms (i.e.; *I would like to sound like a native speaker when I speak English*) were selected as well as those items in which the students reported whether they view pronunciation as a discipline (i.e: *You best learn pronunciation by using repetition techniques*; *You best learn pronunciation by learning vowel and consonant sounds*; *you best learn pronunciation by focusing on a particular standard accent-British or American*) or as a means to communicate (*You best learn pronunciation by speaking in real situations such as travelling*; *You best learn pronunciation by listening to people, films, etc. in real situations*). Pronunciation learning actions were explored with 8 items (e.g., *I try to improve my pronunciation by watching films*; *I try to improve my pronunciation by using pronunciation dictionaries*). To measure students' pronunciation anxiety depending on the interlocutor, seven items such as feeling uncomfortable or ridiculed, fear of mistakes (e.g.: *I feel uncomfortable with my English pronunciation when I speak to...*) were explored with reference to different interlocutors: i) teacher, ii) local peers, iii) international peers with English as an L1 and, iv) international peers with English as an L2. Students chose one option on a 6-point Likert scale (6= *strongly agree*; 5=*moderately agree*; 4= *agree*; 3= *disagree*; 2= *moderately disagree*; 1= *strongly disagree*). Cronbach's alpha coefficient was used to measure overall consistency of interlocutor anxiety in the questionnaire ($\alpha = .9$; $n = 28$). We calculated mean scores and standard deviations for the items, which were processed and analysed in SPSS (version 26). The distribution of the answers was not normal (Kolmogorov-Smirnov) so we used Mann-Witney tests to calculate differences between the two groups.

To complement these quantitative data with qualitative data, some of the students took part in focus group sessions, which mainly addressed students' views on pronunciation in the classroom/during lectures. 29 students (10 engineering students and 19 English studies students) participated in the focus group sessions which were audio recorded, transcribed and coded by means of content analysis in order to identify recurring themes in the data (Zacharias, 2012). They were given the following question prompts: *Do you worry about your English pronunciation? Do you sometimes have problems to pronounce certain*

terms? Have you ever refrained from asking questions because of pronunciation issues? Do you sometimes have problems with understanding lecturers because of pronunciation? Does their pronunciation impede your understanding? Do you think lecturers are worried about their pronunciation?

5. Results

5.1 Students' views and learning actions

Both groups expressed a wish to improve their English pronunciation and a rather strong adherence to native references; no significant differences were found in these items. We also explored whether these students would interpret pronunciation more as a linguistic aspect or discipline, with specific learning techniques or as a communicative skill, which mainly develops from interaction or real usage (Müller, 2013). In this case, differences emerged between the groups: the English major students expressed greater agreement with the idea of pronunciation learning as a discipline, indicative of the fact that they are developing English language expertise and specific knowledge in the contents they undertake during the degree, specifically having taken English phonetics and phonology courses. However, the groups did not differ in their interpretation of pronunciation development in real communicative contexts.

Table 2: Mean differences in attitudes to pronunciation of the two groups of English learners

	group	Mean (s.d.)	z	Sig.
<i>Wish to improve pronunciation</i>	Engineering	4.99 (1.12)	-1.08	> .05
	English major	5.01 (1.10)		
<i>Wish to sound like a native speaker</i>	Engineering	5.27(1.03)	-1.85	> .05
	English major	5.54 (.80)		
<i>Pronunciation learning as a discipline</i>	Engineering	3.26 (1.20)	-.46	< .001
	English major	3.95 (1.13)		
<i>Pronunciation learning as usage</i>	Engineering	5.20 (0.92)	-2.44	> .05
	English major	5.24 (0.94)		

Note: statistical detail in Man-Whitney non-parametric calculations

We also measured pronunciation learning actions by asking the learners whether they undertake the actions described in Table 3 to learn or practice pronunciation. Percent figures are very similar when students related that they learn or practice pronunciation when they get into contact with native speakers. The figures varied slightly when asked if they use specific materials for pronunciation learning. Although both groups indicated this practice to a certain extent, the English studies group ticked these (using pronunciation manuals, taking a phonetics course, etc.) more often.

Table 3: Percent differences in pronunciation learning actions of the two groups of English learners

%	Engineering	English Studies
Watch films, series	82	89.5
Use the internet (podcast, youtube, etc.)	78	86
Contact with native speakers	50	58
Play on-line games	76	26
Use of pronunciation apps	7.1	33.3
Use of pronunciation dictionaries	2.4	26.3
Phonetics/pronunciation course taken	6.3	12.3
Use pronunciation manual	3.2	7

5.2 Pronunciation anxiety

As Table 4 shows, the mean scores for both groups tend to be between 2 (moderately disagree) and 3 (disagree), which indicates rather low levels of pronunciation anxiety, even though there are some means higher than 3 in the English major group. We also note that in both groups, anxiety appears to be somewhat higher in interactions with English L1 international peers and lecturers than with English L2 international peers and local peers. The engineering students scored lower than the English major students for all the interlocutors, as they tended to disagree with all the statements (overall mean: 2.30, out of 6). The English major students' overall mean (2.9 out of 6) indicated a slightly higher level of pronunciation anxiety, which was higher for all interlocutor profiles. These differences turned out to be significant as can be seen in Table 4, which is indicated by levels of significance (Man-Whitney) for each interlocutor profile between the two groups.

Table 4: Mean and difference significance for pronunciation anxiety depending on interlocutor

	group	Mean (s.d.)	z	Sig.
<i>English L1 international peers</i>	Engineering	2.51 (.92)	-4.45	< .001
	English major	3.08 (.95)		
<i>Lecturer</i>	Engineering	2.50 (.95)	-4.51	< .001
	English major	3.25 (.97)		
<i>English L2 international peers</i>	Engineering	2.21 (.83)	-3.79	< .001
	English major	2.73 (.90)		
<i>Local peers</i>	Engineering	2.00 (.76)	-3.77	< .001
	English major	2.56 (.75)		

Table 5 shows differences for each anxiety aspect. In line with the results of Table 4, the English major students scored higher in each of the specific anxiety items explored. As can be observed, aspects such as fear of feeling ridiculed or being afraid of making mistakes because of one's pronunciation were those which provoked the highest differences between the groups. Fear of correction or fearing that pronunciation will be the reason for a misunderstanding were the next categories which also showed some significant differences. Finally, those anxiety categories in which the groups were less different were feeling uncomfortable or feeling nervous because of pronunciation.

Table 5: Mean and significant differences between the groups as for interlocutor anxiety items

	group	Mean (s.d.)	z	Sig.
<i>Feel uncomfortable</i>	Engineering	2.53 (1.07)	-2.88	< .005
	English major	3.07 (1.18)		
<i>Feelridiculed</i>	Engineering	1.96 (1.02)	-4.21	< .001
	English major	2.86 (1.33)		
<i>Fear of Correction</i>	Engineering	1.92 (.97)	-2.44	< .05
	English major	2.41 (1.21)		
<i>Unwillingness to speak</i>	Engineering	1.59 (.86)	-2.60	< .005
	English major	2.03 (1.12)		
<i>Fear of mistakes</i>	Engineering	2.08 (1.38)	-4.20	< .001
	English major	3.79 (1.27)		
<i>Feeling nervous</i>	Engineering	2.74 (1.19)	-2.68	< .005
	English major	3.29 (1.36)		
<i>Cannot understand</i>	Engineering	2.52 (1.10)	-2.43	< .05
	English major	2.89 (1.07)		

5.3. Results from the focus group sessions

5.3.1. EMI group

Four themes emerged from the focus group discussions in this group. Sample quotes will be shown as for group number and student number (G: S). The first theme that was identified was the idea that the students felt that pronunciation did not pose an obstacle to participate in their EMI classes and that it had no effect on their willingness to communicate in class. The following quotes illustrate this theme:

I would like to improve it [my pronunciation], but it does not stop me from asking questions or from speaking in class.

(Theme: “no obstacle”, G1: S3)

In my case, not knowing how to pronounce a word has never stopped me from asking a question.

(Theme: “no obstacle”, G2: S 4)

The second theme which emerged was the idea that it is always better to try to speak in English, even if you are not sure how to pronounce a word, than not to ask the question and have your questions unanswered. It was also stated that shame may be provoked by having to speak English in front of the whole class and the effort this implies and not so much because of pronunciation.

This [= speaking in front of the whole class] embarrasses me more than my pronunciation or the fact that it’s in English.

(Theme: “public speaking anxiety”, G1:S1)

Interestingly, a third theme emerged as the seven students from computer science also stated that they sometimes felt embarrassed because their English accent is better than that of other fellow students, and they consciously avoid good pronunciation, as the following quote illustrates:

If you try to have a perfect pronunciation, it makes you look bad. I am certain that we all have a worse accent [in class] than the accent that we could really have. It’s as if you have to find the middle ground so that you do not pronounce very badly, but you also shouldn’t go over the top [pronounce too well].

(Theme: “too good”, G2: S1).

Finally, your pronunciation is always going to be worse [in class] than the way you pronounce in reality. For example, I think I can pronounce better than the way I do when I ask questions in class.

(Theme: “too good”, G2:S4).

The fourth theme which we identified in these discussions was observed with regard to their lecturers' pronunciation. All students stated that there were considerable differences among them. They observed that while some of their lecturers looked less comfortable speaking in class, most of them seemed confident enough and did not seem to worry about their pronunciation. Interestingly, they frequently mentioned that they value lecturer fluency rather than pronunciation accuracy.

I think that much more than pronunciation, what's important is fluency, because even though you [the lecturer] pronounce badly, if you [the lecturer] speak fluently, without pausing, you [students] can more or less follow the class.

(Theme: "fluency over accuracy", G2: S1)

What happens there in the end is that if they [the lecturers] worry too much about their pronunciation, it can stop them from explaining well, with regard to the content.

(Theme: "fluency over accuracy", G2: S4)

The problem was not really pronunciation; lecturer A had very good pronunciation, lecturer B not so much, but it didn't bother lecturer B a lot. The problem was more that lecturer C did not have good pronunciation but lecturer C stopped to think about it, that was the problem.

(Theme: "fluency over accuracy", G2: S2)

These students felt that those teachers who spent more time thinking about how to say things correctly made it harder to follow what they wanted to say, as they were less fluent and this made students lose track of what was being explained. At the same time, they also stated that in some cases, a lecturer's bad pronunciation can distract you from following the content of the lesson.

5.3.2. *English majors group*

As the English major students answered the same questions, four themes also emerged, but these were different from those in the EMI group. The most frequent comments coded for the first discussion question proposed were those which expressed that English pronunciation is important and that it is often the reason why miscommunication or lack of participation happens in the classroom. In general, they associated the relevance of pronunciation with the linguistic degree they are studying, as in:

Pronunciation is very important because we are studying an English Degree and we need to have a good level

(Theme: “pronunciation is important and worries me”, G4: Spokesperson)

They also associated these comments with successful communication and one student associated it with communication with native speakers:

Pronunciation is important... especially when I might be speaking with a native speaker or someone who speaks better than me

(Theme: “pronunciation is important and worries me”, G2: S3).

For me, pronunciation is very important. I’m afraid that someone won’t understand me when I’m speaking or that they’ll make funny faces because they are laughing at my pronunciation.

(Theme: “pronunciation is important and worries me”, G2: S4).

A second main theme identified was that of unease about pronunciation. Most students indicated that they very frequently do not know how to pronounce words because these are new or difficult and that this sometimes can impede intelligibility in class with peers and lecturers. Some quotes exhibiting this:

There are moments in which I do not know how to pronounce some words [...] because they are new

(Theme: “pronunciation unease”, G1: S5).

I get lost because I still do not manage vocabulary. especially informal conversations

(Theme: “pronunciation unease”, G1: S3).

We feel worried when we have to pronounce some words because lecturers cannot understand us and neither peers

(Theme: “pronunciation unease”, G4: Spokesperson).

Interestingly, some students expressed this unease with stronger words, expressing some feeling of shame or embarrassment, maybe hinting at the social stigma which can be associated with accent (Levis & Moyer, 2014). Some of these quotes include:

I feel *scared* when people do not understand me when I speak and give me weird faces...

(Theme: “pronunciation shame”, G2:S4).

I feel *embarrassed* because my pronunciation is not as good as that of my peers

(Theme: “pronunciation shame”, G1:S2).

I felt *inferior* when I spoke to them [Swedish students].

(Theme: “pronunciation shame”, G1:S4).

A third theme we identified was a higher demand for lecturer pronunciation accuracy on the part of these students. They expressed frustration and sometimes severe attitudes towards the expected good pronunciation their lecturers should have. However, few comments directly associated this with a lack of intelligibility. Some examples of these comments are:

I am very strict with this[lecturers’ pronunciation] I would be very worried [about my pronunciation] if I were them

(Theme: “demand for lecturer pronunciation accuracy”, G1:S4).

I become overwhelmed because I do not get to understand a word [...] and I end up losing the concept

(Theme: “demand for lecturer pronunciation accuracy”, G1:S4).

I feel they [lecturers] speak worse than us.

(Theme: “demand for lecturer pronunciation accuracy”, G1:S4).

Finally, we identified a minority of comments which gave preference to intelligibility over accuracy; this was conveyed by some comments in which students indicated that accent is inherent and part of the identity of a person or that pronunciation does not hinder their participation/speaking because what is important is to communicate. Some of these comments:

What matters is that I get the message across. (Theme: “intelligibility over accuracy [...] Everyone has an accent, teachers have their own accent, and that’s that

(Theme: “intelligibility over accuracy”, G1:S5).

Pronunciation does not worry me, it gives you personality.

(Theme: “intelligibility over accuracy”, G5:S3).

6. Discussion

This study intended to explore possible differences between two English learning populations regarding views, learning actions and anxiety towards pronunciation. It was hypothesised that differences between learning contexts, such as amount of linguistic knowledge and/or learning purpose, could lead to differences between the groups in the aspects explored. The two learner communities investigated, a group of English major learners in their third and fourth years and two groups

of engineering students in their first, second and third years participated in a questionnaire survey and focus group sessions. As was found in previous studies comparing attitudes to pronunciation of students from different contexts (Kang, 2015; Waniek-Klimczak & Klimczak, 2008), there were several differences between the English major students and the EMI students, but there were also some similarities. With regard to how students view pronunciation, our results appear to be in line with those of Waniek-Klimczak and Klimczak (2008), who compared English major students and EMI students at a Polish university. Similar to what these authors found, both groups of students in our study found pronunciation to be important, stating that they wished to improve their pronunciation. Students in both groups also expressed a wish to sound like a native speaker of English. Waniek-Klimczak and Klimczak (2008) similarly found that both the English group and the EMI group in their study expressed a preference for a native English variety, British English to be precise. Moreover, both EMI and English major students agreed that pronunciation is a means to communicate, even though more English major students viewed pronunciation as a discipline to be mastered. We also found differences in how the two groups related their pronunciation learning actions. While the two groups similarly reported that they learnt pronunciation when they get in contact with native speakers, the English majors group reported that they also use specific pronunciation learning materials such as dictionaries, apps or courses. These results seem to indicate that the linguistic expertise which the English major students are gaining (phonetics and linguistics courses, for example) could be shaping their interpretation of pronunciation as a discipline and target of study, while the engineering students do not seem to present this view.

In a second research question, we intended to explore whether these two groups of students would show different interlocutor anxiety indexes because of pronunciation. Even though pronunciation anxiety has been found to be present among some EFL (Baran-Łucarz, 2011, 2014) and EMI learners (Chou, 2018), in our study most students in both groups indicated relatively low levels of pronunciation anxiety. On the other hand, our study provides further evidence to Baran-Łucarz and Lee's (2021) claim that fear of negative evaluation from different interlocutors is part of pronunciation anxiety, as higher levels of anxiety were found for some interlocutors (i.e. lecturers and international L1 English peers) than others (local peers and international English L2 peers), and this was more clearly noticeable in the English major group, who exhibited more anxiety than the engineering group with all four interlocutor profiles. Moreover, fear of being ridiculed, together with fear of making mistakes, were those anxiety items in which the English major group exhibited the highest differences.

The third research question intended to explore students' views and concerns about pronunciation during classroom interaction. Interestingly, the themes which were identified were very different in each group. The engineering students mainly stated that pronunciation is not an obstacle in classroom communication

and that they value fluency over accuracy as their target is to understand and interpret the content of the lesson. Similar views about the importance of fluency when it comes to pronunciation were expressed by EMI history students at a Spanish university (Gómez-Lacabex & Gallardo-del-Puerto, 2021). Interestingly, as also noted in Lefkowitz and Hegcock's (2002) study of Spanish and French adult learners, some of the engineering students claimed that they sometimes deliberately pronounce worse than they are actually capable of as a result of peer pressure. In contrast with the engineering students, the English major students expressed great concern with their own and their lecturers' pronunciation accuracy, which is in line with previous studies on English philology students' attitudes to pronunciation (Cenoz & García Lecumberri, 1999; Doiz, Lasagabaster & Sierra, 2012; Lasagabaster & Sierra Pawlak, Mystkowska-Wiertelak & Bielak, 2015; Nowacka, 2001). These students showed feelings of worry, unease and shame when asked about the role of pronunciation in their lectures, mainly explaining that pronunciation is a key element in the comprehension of the lecture. They also expressed worry because pronunciation is a skill they are required to develop in their English degree and some of them feel that their pronunciation is not good enough. With regard to their lecturers' pronunciation, the English major students frequently demanded pronunciation accuracy on the part of the lecturers and complained about some of their lecturers' pronunciation skills. Some students in the EMI focus group sessions also mentioned a difference in pronunciation skills among their lecturers, and they admitted that this could sometimes be a distraction. Similar concerns about lecturer pronunciation have been found in other EMI contexts, for instance in Turkey (Karakas, 2017) or the Netherlands (Hendriks et al., 2021). However, the EMI students in the present study were mainly tolerant towards their lecturers' pronunciation and accent, whereas the English major students were a lot more demanding about this. Unlike the engineering group, The English major group showed a limited number of comments about intelligibility being more relevant than accuracy.

Overall, the English major group was more anxious about pronunciation than the engineering group. Several considerations may be contemplated. First, in line with Waniek-Klimczak and Klimczak's (2008) results, we may argue that the English major students tend to adhere more to an accuracy-oriented pronunciation target, maybe native-like, in their pursuit to develop their English pronunciation skills. This may be because many of these students will become language teaching practitioners and they feel they need to develop more linguistic precision in English and thus set native-like standards, as found in previous studies (Doiz et al., 2012; Nowacka, 2012; 2022). Second, in agreement with previous research conducted with EMI students in tertiary education, these engineering students show a more communicative-oriented interpretation of pronunciation (Chou, 2018; Gómez-Lacabex & Roothoof, in press). Interestingly, this was also shown in their disposition to modify their pronunciation towards a less accurate variety,

a characteristic associated with a more integrative and interactivist view of pronunciation (Müller, 2013). Finally, although the data in this study needs further replication and exploration, such as further analyses of pronunciation to evaluate differences in performance between the two groups, research on pronunciation anxiety seems to hint at a negative correlation between highly anxious learners and pronunciation performance. Given the considerable pronunciation anxiety indexes which were identified in the English major group in the present study, our results support recent proposals for integrating affective attention in pronunciation learning practices (Szyszka, 2017), which can favour feelings of security or the development of a positive self-image (Baran-Łucarz, 2013) in order to decrease pronunciation anxiety and maximize learners' pronunciation development.

7. Conclusions

This study adds to the limited body of research which looks into different groups of students' pronunciation views, learning actions and pronunciation anxiety. Even though the English major students and engineering students surveyed shared a belief in the importance of pronunciation for communication, several differences were observed between the two groups with regard to pronunciation anxiety and their views about pronunciation in the classroom. While the pronunciation anxiety of both groups was relatively low, the English major group appeared to be significantly more anxious about their pronunciation in interaction with different interlocutors, such as the teacher, local peers or international peers. They also seemed to suffer more frequently from the fear of being ridiculed by others because of their pronunciation, or the fear of making mistakes. These results indicate a need to work on the affective aspects of pronunciation in the classroom, by including reflection and anxiety-lowering activities, such as the ones proposed by Crookall and Oxford (1991), for instance. The focus group data also confirmed these differences between the groups, as the English major students were found to be more demanding towards themselves and their lecturers when it comes to accurate pronunciation. The engineering students, on the other hand, emphasized the importance of fluency over accuracy.

It needs to be noted that the present study only looked at the attitudes of two relatively small samples of students, in the context of higher education in Spain. Future studies are needed which include larger numbers of students in different countries. While the EMI students in this study were engineering students, future research might survey students from different faculties, as the field of knowledge (for example science versus humanities), may have an impact on students' beliefs (Roothoof, 2022). Finally, it would also be interesting to contrast the survey data with classroom observation, and to investigate the possible link between pronunciation anxiety and students' pronunciation skills.

References

- Baran-Lucarz, M. (2011). The relationship between language anxiety and the actual and perceived levels of foreign language pronunciation. *Studies in Second Language Learning and Teaching*, 1(4), 491-514. <https://doi.org/10.14746/ssl1t.2011.1.4.3>
- Baran-Lucarz, M. (2013). Phonetics learning anxiety—results of a preliminary study. *Research in Language*, 11(1), 57-79. <https://doi.org/10.2478/v10015-012-0005-9>
- Baran-Lucarz, M. (2014). The link between pronunciation anxiety and willingness to communicate in the foreign-language classroom: The Polish EFL context. *Canadian Modern Language Review*, 70(4), 445-473. <https://doi.org/10.3138/cmlr.2666>
- Baran-Lucarz, M. & Lee, J.H. (2021). Selected determinants of pronunciation anxiety. *International Journal of English Studies*, 21(1), 93-113. <https://doi.org/10.6018/ijes.426411>
- Barrios, E., López-Gutiérrez, A., & Lopez-Agudo, L. A. (2022). Language-related perceptions: How do they predict student satisfaction with a partial English Medium Instruction in Higher Education? *Journal of English for Academic Purposes*, 57, 101121. <https://doi.org/10.1016/j.jeap.2022.101121>
- Cenoz, J., & Lecumberri, M. L. G. (1999). The acquisition of English pronunciation: Learners' views. *International Journal of Applied Linguistics*, 9(1), 3-15. <https://doi.org/10.1111/j.1473-4192.1999.tb00157.x>
- Chou, M. H. (2018). Speaking anxiety and strategy use for learning English as a foreign language in full and partial English-medium instruction contexts. *Tesol Quarterly*, 52(3), 611-633. <https://doi.org/10.1002/tesq.455>
- Crookall, D. & Oxford, R. (1991). Dealing with anxiety: Some practical activities for language learners and teacher trainees. In Gardner R. C. (Eds.), *Language Anxiety. From Theory and Research to Classroom Implications* (141-150). Prentice Hall.
- Dalton, C., & Seidlhofer, B. (1994). *Pronunciation*. Oxford University Press.
- Derwing, T. M., & Rossiter, M. J. (2002). ESL learners' perceptions of their pronunciation needs and strategies. *System*, 30(2), 155-166. <https://doi.org/10.1002/tesq.455>
- Dewaele, Jean-Marc. *Emotions in multiple languages*. Basingstoke: Palgrave Macmillan, 2010. <https://doi.org/10.1057/9780230289505>
- Doiz, A., Lasagabaster, D. and Sierra, J. M. (Eds.). (2012). *English-medium instruction at universities: Global challenges*. *Multilingual matters*. <https://doi.org/10.21832/9781847698162-004>
- Dörnyei, Z. (2009). The L2 motivational self system. *Motivation, language identity and the L2 self*, 36(3), 9-11. <https://doi.org/10.21832/9781847691293-003>
- Galloway, N., & Rose, H. (2015). *Introducing global Englishes*. Routledge. <https://doi.org/10.4324/9781315734347>
- Dziubalska-Kołodziej, K., & Przedlacka, J. (Eds.). (2008). *English pronunciation models: A changing scene* (Vol. 21). Peter Lang.
- Garrett, P., & Young, R. F. (2009). Theorizing affect in foreign language learning: An analysis of one learner's responses to a communicative Portuguese course. *The Modern Language Journal*, 93(2), 209-226. <https://doi.org/10.1111/j.1540-4781.2009.00857.x>
- Gómez-Lacabex, E., & Gallardo-del-Puerto, F. (2021). Pronunciation in EMI: A Preliminary Study of Spanish University Students' Intelligibility and Comprehensibility. In D. Lasagabaster, & A. Doiz (Eds.). *Language Use in English-Medium Instruction at University* (pp. 126-144). Routledge. <https://doi.org/10.4324/9781003134534-7>
- Gómez-Lacabex, E., & Roothoof, H. (2023). Pronunciation in EMI: Conceptualization, interlocutor anxiety and attitudes towards lecturer speech. *Journal of Multilingual Theories & Practices*, 4(1). <https://doi.org/10.4324/9781003134534-7>

- Guiora, A. (1972). Construct validity and transpositional research: Toward an empirical study of psychoanalytic concepts. *Comprehensive Psychiatry*, 13(2), 139–150.
[https://doi.org/10.1016/0010-440X\(72\)90019-3](https://doi.org/10.1016/0010-440X(72)90019-3)
- Henderson, A. (2019). Training for English-Medium Instruction in French Higher Education: Keeping Pronunciation in Focus. *Recherche et pratiques pédagogiques en langues de spécialité. Cahiers de l'Apliu*, 38(2). <https://doi.org/10.4000/apliu.7402>
- Henderson, A., Curnick, L., Frost, D., Kautzsch, A., Kirkova-Naskova, A., Levey, D., ... & Waniek-Klimczak, E. (2015). The English pronunciation teaching in Europe survey: Factors inside and outside the classroom. In J.A. Mompean & J. Fouz González, (Eds.). *Investigating English pronunciation: Trends and directions*. Springer. (pp. 260-291). Palgrave Macmillan, London.
https://doi.org/10.1057/9781137509437_12
- Hendriks, B., van Meurs, F., & Usmany, N. (2021). The effects of lecturers' non-native accent strength in English on intelligibility and attitudinal evaluations by native and non-native English students. *Language Teaching Research*. Advance online publication.
<https://doi.org/10.1177/1362168820983145>.
- Horwitz, E. K. (1988). The beliefs about language learning of beginning university foreign language students. *Modern Language Journal*, 72, 283–294.
<https://doi.org/10.1111/j.1540-4781.1988.tb04190.x>
- Jarosz, A. (2021). Incidental development of pronunciation learning strategies. *Research in Language (RiL)*, 19(3), 267-282. <https://doi.org/10.18778/1731-7533.19.3.03>
- Jenkins, J. (2000). *The phonology of English as an international language*. Oxford university press.
- Jenkins, J., Baker, W., & Dewey, M. (Eds.). (2018). *The Routledge handbook of English as a lingua franca* (pp. xix-620). London: Routledge. <https://doi.org/10.4324/9781315717173>
- Kang, O. (2015). Learners' perceptions toward pronunciation instruction in Three Circles of World Englishes. *Tesol Journal*, 6(1), 59-80. <https://doi.org/10.1002/tesj.146>
- Kang, O., Thomson, R. I., & Murphy, J. (Eds.). (2018). *The Routledge handbook of contemporary English pronunciation*. New York, NY: Routledge. <https://doi.org/10.4324/9781315145006>
- Karakas, A. (2017). The forgotten voices in higher education: Students' satisfaction with English-medium instruction. *Journal of English as an International Language*, 12(1), 1-14.
- Lasagabaster, D., & Sierra, J. M. (2002). University students' perceptions of native and non-native speaker teachers of English. *Language awareness*, 11(2), 132-142.
<https://doi.org/10.1080/09658410208667051>
- Lefkowitz, N., & Hedgcock, J. (2002). Sound barriers: Influences of social prestige, peer pressure and teacher (dis) approval on FL oral performance. *Language Teaching Research*, 6(3), 223-244. <https://doi.org/10.1191/1362168802lr107oa>
- Levis, J. (2015). Learners' views of social issues in pronunciation learning. *Journal of Academic Language & Learning*, 9(1), 42-55.
- Levis, J. (2020). Revisiting the intelligibility and nativeness principles. *Journal of Second Language Pronunciation*, 6(3), 310--328. <https://doi.org/10.1075/jslp.20050.lev>
- Levis, J. M., & Moyer, A. (Eds.). (2014). *Social dynamics in second language accent* (Vol. 10). Walter de Gruyter. <https://doi.org/10.1515/9781614511762>
- Lintunen, P., & Mäkilähde, A. (2018). Short-and long-term effects of pronunciation teaching: EFL learners' views. In J. Teoksessa Volin and R. Skarnitzl, R.(eds.), *The pronunciation of English by speakers of other languages*. (pp. 46--72). Cambridge Scholars Publishing.
- Macaro, E. (2022). English Medium Instruction: What do we know so far and what do we still need to find out? *Language Teaching*, 1--14. <https://doi.org/10.1017/S0261444822000052>
- MacIntyre, P. D., Baker, S. C., Clément, R., & Conrod, S. (2001). Willingness to communicate, social support, and language-learning orientations of immersion students. *Studies in second language acquisition*, 23(3), 369-388. <https://doi.org/10.1017/S0272263101003035>
- Müller, M. (2013). Conceptualizing pronunciation as part of translingual/transcultural competence: New impulses for SLA research and the L2 classroom. *Foreign Language Annals*, 46(2), 213--229. <https://doi.org/10.1111/flan.12024>

- Nowacka, M. (2012). Questionnaire-based pronunciation studies: Italian, Spanish and Polish students' views on their English pronunciation. *Research in Language*, (10)1, 43-61. <https://doi.org/10.2478/v10015-011-0048-3>
- Nowacka, M. (2022). English phonetics course: University students' preferences and expectations. *Research in Language*, 20(1), 71-84. <https://doi.org/10.18778/1731-7533.20.1.05>
- Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Boston: Heinle & Heinle.
- Pawlak, M. (2011). Students' successes and failures in learning foreign language pronunciation: Insights from diary data. In J. Arabski & A. Wojtaszek (Eds.), *The acquisition of L2 phonology* (pp. 165-182). Bristol: Multilingual Matters. <https://doi.org/10.21832/9781847693761-014>
- Pawlak, M., Mystkowska-Wiertelak, A., & Bielak, J. (2015). Exploring advanced learners' beliefs about pronunciation instruction and their relationship with attainment. *Teaching and Researching the Pronunciation of English: Studies in Honour of Włodzimierz Sobkowiak*, 3-22. https://doi.org/10.1007/978-3-319-11092-9_1
- Pennington, M. C. (2021). Teaching pronunciation: The state of the art 2021. *RELC Journal*, 52(1), 3-21. <https://doi.org/10.1177/00336882211002283>
- Pennington, M. C., & Rogerson-Revell, P. (2019). *English pronunciation teaching and research*. London: Palgrave Macmillan, 10, 978-988. <https://doi.org/10.1057/978-1-137-47677-7>
- Philips, E. M. (1992). The effects of language anxiety on students' oral test performance and attitudes. *The modern language journal*, 76(1), 14-26. <https://doi.org/10.1111/j.1540-4781.1992.tb02573.x>
- Roothoof, H. (2022). Spanish lecturers' beliefs about English medium instruction: STEM versus Humanities. *International Journal of Bilingual Education and Bilingualism*, 25(2), 627-640. Rose, H. & Galloway, N. (2019). *Global Englishes for language teaching*. Cambridge University Press. <https://doi.org/10.1080/13670050.2019.1707768>
- Sardegna, V. G., Lee, J., & Kusey, C. (2018). Self-efficacy, attitudes, and choice of strategies for English pronunciation learning. *Language Learning*, 68(1), 83-114. <https://doi.org/10.1111/lang.12263>
- Setter, J. (2008). Theories and Approaches in English Pronunciation. In R. Monroy & A. Sánchez (Eds.), *25 Years of Applied Linguistics in Spain: Milestones and Challenges* (pp. 447-457). Murcia: Universidad de Murcia
- Stanojević, M. M., Kabalin Borenić, V., & Josipović Smojver, V. (2012). Combining different types of data in studying attitudes to English as a Lingua Franca. *Research in Language*, 10(1), 29-41. <https://doi.org/10.2478/v10015-011-0043-8>
- Stanojević, M. M., Kabalin Borenić, V., and Josipović Smojver, V. (2012). Combining different types of data in studying attitudes to English as a Lingua Franca. *Research in Language*, 10(1), 29-41. <https://doi.org/10.2478/v10015-011-0043-8>
- Szyska, M. (2011). Foreign language anxiety and self-perceived English pronunciation competence. *Studies in Second Language Learning and Teaching*, 1(2), 283-300. <https://doi.org/10.14746/ssl.2011.1.2.7>
- Szyska, M. (2016). English pronunciation teaching at different educational levels: Insights into teachers' perceptions and actions. *Research in Language*, 14(2), 165-180. <https://doi.org/10.1515/rela-2016-0007>
- Szyska, M. (2017). Pronunciation learning strategies and language anxiety. In search of an interplay. Springer. <https://doi.org/10.1007/978-3-319-50642-5>
- Tsang, A. (2020). Why English accents and pronunciation 'still' matter for teachers nowadays: a mixed-methods study on learners' perceptions. *Journal of Multilingual and Multicultural Development*, 41(2), 140-156. <https://doi.org/10.1080/01434632.2019.1600528>
- Waniek-Klimczak, E., & Klimczak, K. (2008). Target in speech development: learners' views. In K. Dziubalska-Kończak, & J. Przedlacka, (Eds.). *English pronunciation models: A changing scene*, 229-249. Peter Lang.

- Waniek-Klimczak, E., Rojczyk, A., and Porzuczek, A. (2014). 'Polglish' in Polish Eyes: What English studies majors think about Their pronunciation in English. In E. Waniek-Klimczak and M. Pawlak (eds.), *Teaching and Researching the Pronunciation of English* (pp. 23-34). Springer, Cham.
- Zacharias, N. T. (2012). *Qualitative Research Methods for Second Language Education: A Coursebook*. Cambridge Scholars Publishing.

Appendix

Please complete the following questionnaire regarding English pronunciation by placing a CROSS in the appropriate box considering the values:

strongly disagree	moderately disagree	disagree	moderately agree	agree	strongly agree
1	2	3	4	5	6

	1	2	3	4	5	6
1. I would like to sound like a native speaker of English when I speak English.						
2. I would like to improve my English pronunciation.						
3. You best learn pronunciation by using repetition techniques.						
4. You best learn pronunciation when you use the language to speak in real contexts (travel, internet, etc).						
5. You best learn pronunciation when you listen to the language in real contexts (entertainment, interlocutors, etc)						
6. I want to have a good English pronunciation.						
7. You best learn pronunciation by practising single elements (vowels or consonants, for example).						
8. I wish I could improve my English pronunciation.						
9. You best learn pronunciation targeting a standard reference (British or American, for example) with accuracy.						
10. I try to improve my English pronunciation.						
11. If you answered <i>strongly agree</i> , <i>agree</i> or <i>moderately agree</i> to the question above, state which of the following actions you have/take/n to improve your pronunciation: <div style="text-align: right; padding-right: 50px;"> watching films, series using streaming media (Netflix, movistar etc.) using Internet (podcasting, youtube, etc.) </div>						

playing on-line videogames						
I have contact with native speakers						
I check pronunciation in dictionaries						
I use pronunciation apps (<i>apple, etc.</i>)						
I use pronunciation manuals						
I have taken a phonetic/pronunciation course						
I have stayed in English speaking countries						
others						

	...EMI Teacher	...fellow peers L1 English speaking peersL2 English speaking peers
1. I feel uncomfortable because of my English pronunciation when I speak English in/with _____.				
2. I am afraid that my _____ will ridicule my pronunciation when I speak in class				
3. I am afraid that my _____ will correct my pronunciation when I speak in class				
4. Pronunciation is the main reason why I may not participate with _____.				
5. I don't worry about making pronunciation mistakes when I speak English with _____.				
6. I feel uncomfortable/anxious when I cannot understand the pronunciation of my _____.				
7. I sometimes cannot understand the pronunciation of my _____.				

Thank you