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The relationship between students' pronunciation self-perception and their immediate and recalled anxiety levels in a French as a Foreign Language classroom

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This paper presents a study focusing on Polish learners of French and their pronunciation anxiety. Our aim was to deepen understanding of self-reported language anxiety by conducting a simultaneous examination of learners' situation-specific anxiety (manifesting itself during each performance), immediate anxiety (experienced momentarily during the completion of a reading aloud task) and recalled anxiety (obtained from a delayed post-test administered one week after the treatment). Another goal we sought to accomplish was the examination of learners' self-reported and actual pronunciation proficiency. We decided to combine two approaches to self-assessment. Instead of focusing solely on learners' global perception of their pronunciation proficiency, we also took into account their contextualized self-assessment, with the subjects being asked to rate two specific performances. The conclusion we reached is that even if various anxiety types and subjects' self-assessed proficiency levels are interconnected, the nature of this link is still elusive.

Key words: foreign language learning, pronunciation anxiety, pronunciation self-perception

1. Introduction

1.1. Defining the concept of language anxiety

Foreign language anxiety (FLA) is a phenomenon which has attracted the attention of many scholars since it was first defined (Horwitz, Horwitz & Cope 1986). This particular feeling experienced by learners in the FL classroom can be defined as "the apprehension experienced when a situation requires the use of a second language with which the individual is not fully proficient [and] the propensity for an individual to react in a nervous manner when speaking, listening, reading, or writing in the second language" (MacIntyre & Gardner 1994: 5). An increased anxiety level can manifest itself in many ways, such as sweating, pounding of the heart or feeling cold, as well as impairment of cognitive abilities (Woodrow 2006).

Anxiety is frequently divided into three types: trait, state and situation-specific anxiety. Trait anxiety is "a behavioral tendency that is constant" (Jung *et al.* 2017: 4). As a consequence, "people with high levels of trait anxiety are generally nervous people in a wide range of circumstances" (Huang 2012: 1520). The second type, state anxiety, is "an apprehension expected at a particular moment in time as a response to a definite situation." (Spielberger *et al.*, 1983, as cited in Huang 2012: 1520). It is a temporary emotional response to an unexpected situation that is considered to be threatening and "is said to fluctuate and vary in its intensity over time" (Carducci 2009: 553). The third type of anxiety is situation-specific anxiety, which "can be seen as trait anxiety limited to a given context" (MacIntyre & Gardner, 1991: 90). The relationship between trait and situation-specific anxiety is exemplified as follows:

[...] if an individual – low or high in trait anxiety – perceives a defined context as non-threatening, then he or she will be low in situation-specific anxiety. However, if another specified situation is repeatedly recognised as dangerous by the same individual, then the level of situation-specific anxiety will be high (Szyszka 2017: 56)

According to Horwitz, Horwitz & Cope (1986), foreign language classroom anxiety is a typical situation-specific anxiety.

It seems clear that there is a relationship between learner anxiety and performance, although some researchers disagree about the direction of the influence, with some (e.g. Horwitz 2001) claiming that a high level of LA can cause poor linguistic achievement, while others (e.g. Sparks & Ganschow 2000) express the opposite opinion, maintaining that LA is rather a result of poor linguistic skills. Anxiety is also deemed to influence various personality characteristics of learners such as motivation (Liu & Huang, 2011), self-esteem (von Wörde, 2003) as well as attitudes towards a particular foreign language (Gardner & MacIntyre, 1993). It is therefore a variable of paramount importance when attempting a description of learners' experiences.

1.2. Review of previous research into language anxiety

Some previous research pointed to the existence of a negative correlation between LA and oral performance. In one such study (Philips 1992), the author used the FLCAS (Foreign Language Classroom Anxiety Scale) developed by Horwitz, Horwitz & Cope (1986) to assess the level of LA in 44 students aged 17-21. The participants were subsequently subjected to an oral examination whose results were compared with their LA level. This analysis led to the discovery of a moderately negative correlation ($r=-0.400$) confirming that "students who expressed more foreign LA tended to receive lower exam grades than their less anxious classmates" (Philips 1992: 17).

A similar experiment was conducted by Stevenson Wilson (2006). LA levels of 40 students aged 18-25 were measured using the FLCAS translated into Spanish. Next, students' oral performance was evaluated by means of a free discussion on

a given cultural topic and a role-play between the participants and the teacher. As in the previous case, Pearson's correlation coefficient was calculated for the two variables taken into consideration, and once again, a moderately negative correlation was found ($r=-0.494$), indicating that the more the level of subjects' LA increases the more their performance is impaired.

Moderately negative correlations were also found between the outcomes of anxiety questionnaires and the results of tests focused on other skills than speaking. For instance, MacIntyre and Gardner (1989) presented 104 subjects with a paired-associates learning task and a vocabulary test. After the learning phase, students' knowledge of the new vocabulary items was tested. Their anxiety levels were assessed using various anxiety scales. The authors reached the conclusion that "it is reasonable to suggest that high Communicative anxiety 'caused' performance deficits" (p. 270). In other research by Saito and Samimy (1996), students' final course grades served as an indicator of their global language performance. Similarly in this case, a number of instruments were employed to measure anxiety levels of 257 students. As expected, negative correlations were found between subjects' language achievement and their LA levels, leading the authors to the conclusion that "Language Class Anxiety was the best predictor for both intermediate and advanced-level students".

To sum up, the regular recurrence of similar findings obtained by numerous researchers in various contexts strongly implies the existence of a pattern, indicating that LA should be perceived as an important predictor of success in foreign language learning.

1.3. Foreign language pronunciation anxiety

Both foreign language teachers and learners consider pronunciation an essential element determining the quality of oral communication. Segmental and suprasegmental components of pronunciation are taken into account when oral performance is evaluated. Moreover, the way a learner produces sounds defines his/her self-perception as well as the way he/she is perceived by others. This is the reason why some researchers claim that pronunciation should be viewed as "the most salient aspect of the language ego" (Kralova *et al.* 2017: 49). This also allows us to understand why FLA is usually considered the principal emotion associated with pronunciation. As Baran-Łucarz observed, "[l]ow knowledge of how to pronounce certain vocabulary items can generate concern about not being able to understand fragments of spoken language and of being unintelligible, or cause the worry of being ridiculed by other learners due to word mispronunciation" (Baran-Łucarz 2011: 496). Concerns about unintelligibility are justified since, as Scovel stresses,

even though language learning is largely a cerebral, rather than a physical endeavor, it is related in many ways to the acquisition of athletic skills, especially the neuromuscular task of speaking, and it might be worthwhile to investigate the possible relationship between physiological measures of

emotional arousal and success in foreign language performance, especially in articulatory tasks (Scovel 1978: 135)

In the light of these considerations, one may legitimately expect, or at least might not be surprised, if a negative correlation is found between foreign language pronunciation anxiety (FLPA, Kralova *et al.* 2017) and foreign language pronunciation quality (FLPQ, Kralova *et al.* 2017). Although this is still an under-explored research domain, some authors have been able to shed some light on the question. For instance, Szyszka (2011) examined the self-perceived levels of pronunciation of 48 teacher training college students aged 19-36. She also collected data relating to their language anxiety, using a slightly modified FLCAS and a self-developed Pronunciation Self-evaluation Form. The correlation between the two variables measured $r = -0.540$, indicating that "students who declared lower pronunciation competence experienced a higher level of FL anxiety, and those who perceived their pronunciation as better were less anxious" (Szyszka 2011: 292).

In another study, Baran-Łucarz (2011) used a more complex design, taking into account both perceived and actual levels of English pronunciation. The participants were 43 students of Polish secondary school. Their perceptive and productive skills were evaluated using various measures such as a word-recognition task or the reading of a passage. The subjects were also asked to self-assess their levels of pronunciation, and their LA using the Polish version of FLCAS. As a result,

no significant relationship was found between the extent of LA and the actual pronunciation level represented by the results of the Perception Test and one of the components of the Production Test, that is, individual word reading. However, a significant, though weak, correlation appeared between the scores on the FLCAS and the pronunciation evaluated on the basis of passage reading. [...] Finally, a significant negative correlation of moderate strength ($r = -.49$) was found between the participants' degree of LA and their perceived level of pronunciation (Baran-Łucarz 2011: 503-504)

As can be seen, one must bear in mind that there are a great number of factors which must be taken into consideration when attempting a thorough and comprehensive description of the phenomenon of LA. First, learners' self-perceived pronunciation levels do not necessarily have to reflect their actual abilities. Also, both their FLPQ and FLPA levels can fluctuate over time, which renders the task of a researcher even more difficult. The present research attempts to investigate multiple dimensions of pronunciation anxiety by highlighting the dynamic nature of learners' perceptions.

2. Empirical research

2.1. Study participants and procedure

The subjects were 22 students of applied linguistics at the Maria Curie-Skłodowska University in Lublin, Poland, enrolled in the course French Phonetics. The procedure took place in the first month of the academic year. Prior to the experiment, learners were given basic phonetic training, covering topics such as the phonetic alphabet and general rules of pronunciation. They had some opportunities to practise both their perceptive and productive skills through activities such as reading texts aloud, listening and imitation exercises.

In the first phase of the research participants were asked to complete a 16 item survey on perceptions of their linguistic abilities and the emotional reactions which they experienced in specific situations, namely when speaking and reading texts aloud in the classroom. Its design was inspired by the Foreign Language Classroom Anxiety Scale (Horwitz, Horwitz & Cope 1986). The survey was customised by omitting items which did not pertain to the issues under investigation (referring for instance to test anxiety). Also, some of the items were adapted in order to reflect the context of the French language classroom. The second source from which the items were borrowed was PhLAS (Phonetics Learning Anxiety Scale, Baran-Łucarz, 2013), a tool whose primary focus is on pronunciation. The instrument used in the study described here is reproduced in Appendix 1.

Next, all the participants were asked to read two short texts, drawn from various newspapers, each of about 130 words. The subjects were given no time to prepare, and were required to start reading aloud immediately after the text was handed to them. After the reading of the first text was done, a camera equipped with a stereo microphone (SONY HDR-CX130) was set up in the classroom. The learners were recorded during the reading of the second passage. After each reading, the subjects were asked to rate their anxiety level and to assess the quality of their performance using a simple 5-point scale. During each performance – both unrecorded and recorded – the total number of mispronounced words was calculated by the researcher. In the second case, the recordings were used to validate the frequency count obtained during the direct observation. Cronbach's alpha showed high consistency ($\alpha=0.951$) between the two ratings.

Finally, a week later, the subjects were asked to complete another questionnaire containing only two items. This time, the learners were prompted to reassess their performance and their anxiety levels (see section 2.3. for details).

2.2. Purpose and rationale of the research

The goal of our research was to deepen understanding of self-reported anxiety and proficiency. Consequently, we decided to combine two approaches to self-assessment. Instead of focusing solely on learners' global perception of their

pronunciation proficiency, we also took into account their contextualized self-assessment, with the subjects being asked to rate two specific performances. As far as LA is concerned, we sought to move beyond regarding it as an unchanging attribute, trying instead to account for possible variation in its level. Thus, the originality of our approach lies in the simultaneous examination of subjects' situation-specific anxiety (manifesting itself repeatedly whenever they are asked to perform in class), immediate anxiety (experienced momentarily during the completion of a reading aloud task) and recalled anxiety (obtained from a delayed post-test administered one week after the treatment). In our belief, such an analysis can enable us to better grasp the multidimensionality of the phenomenon of LA.

Our experimental design was further enhanced by the inclusion of an additional element: a video recording device. A recording tool can be expected to affect students' affective reactions in a palpable way. From our personal experience using video recordings in phonetics classes, regardless of the sex, age, or level of language proficiency of a given group of learners, whenever a camera is introduced, its appearance elicits a strong emotional response (Kotuła 2015a, 2015b). Students are usually not accustomed to being recorded and are initially reluctant to accept this. However, a camera is a tool whose usefulness in pronunciation training becomes apparent very quickly. Its incorporation in the classroom routine enables both the teacher and the learner to locate and identify the source of potential articulatory problems in a very precise way. The use of Web 2.0 tools can further enhance the whole process. Uploading the recorded material to a video sharing website (e.g. *YouTube*) provides a user with a wide range of functionalities such as being able to insert on-screen annotations and share them with a selected group of users. This way, a learner can conveniently access a selected document and play it on a wide range of devices, thus allowing them to work in a stress-free environment. However, a video recording device can cause an increase in learners' LA level, as the subjects are aware of the fact that their performance may be scrutinised for errors at a later date.

Another important methodological choice we had to make was that of the optimal way to assess the learners' pronunciation proficiency. We decided to calculate the total number of mispronounced words and use this as an indicator of the subjects' FLPQ. This could be perceived as an oversimplification, since pronunciation is complex and assessment of the phonetic capacities of an individual usually takes into account various aspects of the problem such as rhythm or intonation. However, frequency of mistakes can equally provide useful insights into the quality of a student's pronunciation. While assessment of suprasegmental features such as intonation often relies on the subjective perception of the rater, the number of errors at the segmental level is objectively verifiable as an indicator of a student's level of proficiency. In the context of our research, the priority was to obtain a simple numeric indicator of subjects' abilities. Passage reading of an unknown text can provide a teacher with a substantial amount of information on learners' abilities and gives him/her insight into learners' strengths and weaknesses. This type of activity can be more demanding

than perception and repetition-based exercises on the condition that texts are carefully selected to encompass the whole range of elements designed to reveal potential issues.

2.3. Results

First, we will focus on how the subjects rated their FLPQ and FLPA after each performance. The participants reported their anxiety level was higher whenever the camera was used. This difference proved to be statistically significant ($M_1=3.454$, $M_2=3.909$, $t(21)=-4.183$, $p<0.001$) although the effect size was rather small ($d=0.356$)¹. Similarly, the subjects rated their performance consistently lower during the recorded sessions, although this failed to reach statistical significance ($M_1=3.363$, $M_2=3.091$, $t(21)=2.027$, $p=0.055$). The fact that the difference between the two means in this case is notably smaller than when there was no recording is interesting, since we would expect an increase in the level of FLPA to be mirrored by a comparable decrease in learners' self-reported FLPQ. However, subjects' self-assessment proved accurate: in fact, they did not make more mistakes during the recorded session than during the non-recorded passage reading. The mean number of mistakes was almost identical in both cases, and the difference between the two results was not significant, as confirmed by the results of a *t* test for dependent samples ($M_1=11.545$, $M_2=11.727$, $t(21)=-0.217$, $p=0.830$).

The most frequent mistakes made by study participants were mainly due to the mispronunciation of the sounds [y], [œ] and [ø], but occasional mispronunciation of French consonants, such as [ʁ], occurred as well. It is equally important to mention the confusion between the nasal sounds [ã] and [õ], the difference between these two vowels being particularly difficult to grasp for Polish learners. Finally, the lack of *liaison*, i.e. the pronunciation of a latent word-final consonant immediately before a following vowel sound, was also frequently observed.

In the next step of our analysis, we examined the data provided by the questionnaire. In order to explore the dimensions underlying all the items, factor analysis was used. Results are shown in Table 1.

¹ Cohen's *d* coefficient was calculated using the formula for dependent samples $d=t \cdot [2(1-r)/n]^{1/2}$ established by Dunlop *et al.* (cf. Dunlop, Cortina, Vaslow & Burke 1996 : 171)

Table 1. Results of factor analysis.

Item	Factor 1	Factor 2	Factor 3
1. In language class, I can get so nervous I forget things I know.	0.915	0.035	0.048
2. I start to panic when I have to speak without preparation in language class.	0.893	0.050	0.115
3. I keep thinking that the other students are better at languages than I am.	0.887	0.077	-0.119
4. I tremble when I know that I'm going to be called on in language class	0.708	0.093	0.202
5. I don't worry about making mistakes in language class	-0.755	0.114	-0.462
6. It embarrasses me to volunteer answers in my language class	0.723	0.297	-0.137
7. Even if I am well prepared for language class, I feel anxious about it	0.844	0.110	-0.052
8. While reading aloud I am so embarrassed that I can't focus on my pronunciation and control it.	0.207	0.727	0.190
9. I feel tense and uneasy knowing that other students are listening to me reading in French	0.108	0.915	0.227
10. I am afraid that the other students will laugh at me when I speak the foreign language	0.063	0.887	0.237
11. When I read aloud in French in the phonetics class I get so nervous that my performance is at a much lower level than when I read aloud at home	0.054	0.735	0.133
12. I feel ashamed when the teacher corrects my pronunciation errors in front of the whole class	-0.085	0.747	0.209
13. Other students have better pronunciation than I do	0.091	0.354	0.847
14. I think I am not capable of pronouncing French sounds the way they should be pronounced.	0.403	-0.244	0.735
15. I find it more difficult to improve my pronunciation than other aspect of French	0.078	0.058	0.960

Note. Loadings above 0.6 are highlighted in bold.

In this particular case, a Principal Component Analysis (PCA) with orthogonal rotation (varimax) was conducted. Three components had eigenvalues over Kaiser's criterion of 1 and in combination explained 76.437% of the variance, which is a good result when the relatively small size of the sample is taken into

consideration. We eliminated from our analysis one of the variables ("I feel confident when I speak in foreign language class"), obeying the rule that items with loadings below the 0.600 threshold and those that highly cross-load on more than one factor have to be rejected. Loadings of all the remaining items are listed in Table 1. The first factor (items 1-7) reflects participants' situation-specific anxiety, i.e. the nervousness and apprehension students usually feel in the foreign language class². The second factor (items 8-12) centred on anxiety experienced whenever learners are subjected to the judgement of their peers and teacher. It mostly relates to the negative emotional response to the idea of having to read aloud, or speak in French in front of classmates. Finally, the third factor (items 13-15) corresponds to participants' subjective views on the difficulty of French pronunciation and reflects their doubt as to their capacity to attain sufficient proficiency in this area.

In every case, the value of Cronbach's α was >0.7 , indicating that each factor refers to a single unidimensional construct. The three factors are not highly correlated with one another, which demonstrates that they should be considered as independent entities: the strongest (although non-significant) correlation was observed between Factors 1 and 2 ($r=0.137$, $p=0.544$).

Our next step was to look at the correlations between variables such as students' self-reported FLPA, self-reported and actual FLPQ, as well as the three factors we were able to identify in the PCA. The results are shown in Table 2.

² With the exception of item 5 where a reverse scoring was used.

Table 2. Summary of selected correlations.

Self-reported FLPQ – 1 st reading	Self- reported FLPQ – 1 st reading	Self- reported FLPQ – 2 nd reading	Self- reported FLPA – 1 st reading	Self- reported FLPA – 2 nd reading	Number of mistakes – 1 st reading	Number of mistakes – 2 nd reading	Factor 1	Factor 2	Factor 3
1.000	0.734***	1.000	-0.236	-0.136	-0.019	-0.216	-0.236	-0.027	-0.606**
Self-reported FLPQ – 2 nd reading	0.734***	1.000	-0.135	-0.084	-0.010	-0.187	-0.135	0.355	-0.645**
Self-reported FLPA – 1 st reading	-0.236	-0.135	1.000	0.919***	0.119	0.084	0.582**	0.424*	0.513*
Self-reported FLPA – 2 nd reading	0.734***	1.000	-0.135	1.000	0.121	-0.004	0.681***	0.486*	0.548**
Number of mistakes – 1 st reading	-0.019	-0.010	0.119	0.121	1.000	0.802***	-0.274	0.306	0.256
Number of mistakes – 2 nd reading	-0.216	-0.187	0.084	-0.004	0.802***	1.000	-0.228	0.102	0.200
Factor 1	-0.236	-0.135	0.582**	0.681***	-0.274	-0.228	1.000	0.137	0.105
Factor 2	-0.027	0.355	0.424*	0.486*	0.306	0.102	0.137	1.000	0.128
Factor 3	-0.606**	-0.645**	0.513*	0.548**	0.256	0.200	0.105	0.128	1.000

Note: Correlations marked with * were significant at the p<0.05 level.
Correlations marked with ** were significant at the p<0.01 level.
Correlations marked with *** were significant at the p<0.001 level.

The first question we wanted to answer was whether some significant relationship exists between the way participants rated their performances (variables "Self-reported FLPQ – 1st reading" and "Self-reported FLPQ – 2nd reading") and their level of anxiety. Even if some of the previous research suggested the existence of a negative relationship between learners' degree of LA and their perceived level of pronunciation, no statistically significant correlation was found between the variables in question. This is true not only for the FLPA experienced immediately after each of the performances, but also for the situation-specific anxiety (variable "Factor 1") and fear of being negatively evaluated by others (variable "Factor 2"). The only exception is the negative moderate-to-strong relationship between the two FLPQ-related variables and Factor 3 ($r=-0.606$; $r=-0.645$). This factor does not, however, reflect subjects' LA, but rather their low self-esteem. Hence, the less the participants doubted their ability to master French pronunciation, the more they were convinced of their potential to be able to produce French sounds accurately.

All the correlations between the two FLPA-related variables and the three factors isolated in our PCA analysis proved to be statistically significant, positive and moderate-to-strong in force ($r=0.424-0.681$), as can be seen from Table 2. This seems to be logical, since it is reasonable to assume that situation-specific anxiety, immediate anxiety and low self-esteem in a subject would be somehow connected. However, these relationships are not very strong, which indicates that although the variables in question are undeniably linked to each other, they represent distinct aspects of the complex phenomenon that is foreign language anxiety.

Finally, it was essential to determine whether a relationship exists between self-reported anxiety levels and subjects' actual performance (variables "Number of mistakes – 1st reading" and "Number of mistakes – 2nd reading"). As can be seen from Table 2, none of the correlations in question were found to be significant. Therefore, no link has been proven to exist between the students' level of pronunciation proficiency, expressed by their ability to read a text without preparation, and the various variables serving as indicators of students' immediate, or situation-specific anxiety. This is surprising because the increased level of anxiety was expected to have a debilitating effect on performance in this particular case.

In the final stage of our analysis, we focused on the delayed post-test data collected after a week-long interval. Instead of using the original questionnaire, we designed a new tool which comprised only two items referring to subjects' recalled anxiety and performance levels. Our aim was to assess students' perception of the video camera and its impact on their self-reported proficiency and LA. In the first question learners were asked to compare the levels of anxiety they experienced with and without a camera being used. In the second question, they were supposed to compare their performances in a similar way. Such a delayed assessment can provide valuable insight into the mechanisms of the variability in learners' perceptions. Students' responses are summarized in Table 3.

Table 3. *Distribution of participants' answers to the second questionnaire.*

	much lower	slightly lower	the same	slightly higher	much higher	
Was your anxiety level during the camera recording...	0	0	9	8	5	...than during regular performance
	much worse	slightly worse	the same	slightly better	much better	
Was your performance during the recorded passage reading...	4	10	8	0	0	...than during regular performance

From our earlier discussion, it follows that study participants felt their FLPA was higher during the recorded performance, and this difference, even if not very strong, was confirmed to be statistically significant. In fact, 12 of them (55%) reported no change in their anxiety level, while 10 of them (45%) thought that it increased when the video recorder was used. A similar tendency (although this time the difference between the scores was found to be non-significant) was observed in the case of self-reported FLPQ. This time, 12 participants (55%) assessed both their performances in an identical way, while 8 (36%) rated their recorded performance lower and 2 (9%) higher than the unrecorded performance. It is equally important to mention that whenever such an increase or decrease occurred, both scores varied by no more than one point (for example, someone who rated their anxiety level as 2 after the first reading assigned it a 3 after the second reading). It can be therefore stated that the changes, even if perceptible, were not large.

Table 3 illustrates participants' responses to the questionnaire submitted to them one week after the recordings were made. It reveals how the learners who took part in our study constructed a delayed perception of their experience and the language anxiety associated with it. Data analysis shows that an important shift occurred over the week: the number of respondents claiming that their FLPA level remained the same during both readings decreased from 12 to 9 (41%), 8 participants (36%) reported it rose slightly, while nearly one-quarter (5) of the sample (23%) shared the feeling that their FLPA was much higher during the recorded performance. An analogous tendency is clearly visible in the way participants responded to the question pertaining to the self-assessment of their FLPQ. The majority of subjects (10) considered their recorded performance worse (45%) or far worse (4, 18%) than the non-recorded one. Likewise, the number of subjects who believed the presence of a camera did not affect their reading clearly decreased, reaching 36% (8). Within a relatively short period of time, learners

grew more sceptical about the quality of their performance, even if, as we stated before, this conviction was incorrect.

Discussion and conclusions

As we stated in section 2.3., in our experiment we failed to replicate the findings of previous research in the area. Self-assessed pronunciation anxiety did not correlate in a significant way with either self-perceived or actual foreign language pronunciation quality. Moreover, contrary to one of our initial assumptions, the introduction of an additional, potentially anxiety-increasing tool (i.e. a video recorder) appeared not to have a strong effect on learners' perceptions. The slight increase in participants' FLPA observed when the camera was used was not followed by an analogous decrease in participants' self-reported FLPQ. Also, and even more importantly, it did not affect their capacity to read aloud a text in French.

Another key aspect of the research was to establish to what extent various anxiety types are interconnected. As we explained in section 2.2., both situation-specific and immediate anxiety were taken into account in our analysis. PCA conducted on the data collected through our questionnaire allowed us to isolate three distinct factors reflecting various features of language anxiety. Correlational analysis showed that those aspects are not necessarily strongly linked. Hence, the picture emerging from our observations is one of FLA as a multi-layered phenomenon whose various dimensions are interrelated in a complex manner.

The most interesting finding materialised during the investigation of the delayed post-test data. By asking the subjects to reappraise their FLPA and FLPQ levels, we were able to observe the restructuring process which took place during the week following the recorded sessions. Learners' experience perceived from a temporal distance differed starkly from their immediate recollection. Therefore, pronunciation anxiety should be perceived not as a fixed feature, but rather as a dynamic characteristic.

Due to the limited scope of this research, which involved a relatively small number of participants sharing a common linguistic background, any attempt to formulate definitive conclusions would be highly questionable. Even if we have been able to shed some light on a number of aspects of foreign language pronunciation anxiety, much work remains to be done in this area. Anyone expecting the emergence of predictable and straightforward patterns to explain the relationship between learners' anxiety and their language proficiency may well be forced to acknowledge the elusive nature of this phenomenon. Rather than giving us a simple picture of classroom anxiety, the analysis we conducted presents a complex image of intertwined, context-dependent factors.

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Appendix 1

Survey used in the study

Ustosunkuj się do podanych poniżej stwierdzeń, oceniając je w skali 1-5, gdzie 1=całkowicie się zgadzam, 2=raczej się nie zgadzam, 3=nie mam zdania, 4=raczej się zgadzam, 5=całkowicie się zgadzam

(On a scale of 1 to 5, where 1=strongly disagree, 2=somewhat disagree, 3=neither agree nor disagree, 4= somewhat agree and 5=strongly agree, please tell us how you feel about each of the following statements)

1. Na lekcji języka obcego potrafię się tak zdenerwować, że zapominam to, co już umiem.
(In language class, I can get so nervous I forget things I know)
1 2 3 4 5
2. Zaczynam panikować, kiedy mówię bez przygotowania na lekcji języka obcego.
(I start to panic when I have to speak without preparation in language class)
1 2 3 4 5
3. Ciągłe myślę o tym, że inni uczniowie lepiej ode mnie znają język obcy.
(I keep thinking that the other students are better at languages than I am)
1 2 3 4 5
4. Denerwuję się, gdy wiem, że zostanę wywołany (wywołana) do odpowiedzi na lekcji języka obcego.
(I tremble when I know that I'm going to be called on in language class)
1 2 3 4 5
5. Nie martwię się błędami popełnionymi na lekcji języka obcego.
(I don't worry about making mistakes in language class)
1 2 3 4 5
6. Jestem bardzo pewny (pewna) siebie, gdy wypowiadam się w języku obcym przed innymi uczniami.
(I feel confident when I speak in foreign language class)
1 2 3 4 5
7. Wstydzę się zgłaszać do odpowiedzi na lekcji języka obcego.
(It embarrasses me to volunteer answers in my language class)
1 2 3 4 5
8. Nawet gdy jestem dobrze przygotowany (przygotowana) do zajęć, niepokoję się z ich powodu.
(Even if I am well prepared for language class, I feel anxious about it)
1 2 3 4 5
9. Boję się, że inni uczniowie będą się śmiać, gdy będę mówił (mówiła) w języku obcym.
(I am afraid that the other students will laugh at me when I speak the foreign language)
1 2 3 4 5

1. Gdy muszę czytać na głos denerwuję się tak bardzo, że nie jestem w stanie skoncentrować się na wymowie.
(*While reading aloud I am so embarrassed that I can't focus on my pronunciation and control it*)
1 2 3 4 5
2. Czuję się niepewnie wiedząc, że inne osoby słuchają jak czytam po francusku.
(*I feel tense and uneasy knowing that other students are listening to me reading in French*)
1 2 3 4 5
3. Mam wrażenie, że nie wymawiam dźwięków języka francuskiego tak, jak powinienem (powinnam).
(*I think I am not capable of pronouncing French sounds the way they should be pronounced*)
1 2 3 4 5
4. Praca nad wymową wydaje mi się być trudniejsza niż praca nad innymi aspektami języka.
(*I find it more difficult to improve my pronunciation than other aspect of French*)
1 2 3 4 5
5. Moi koledzy/koleżanki z grupy mają lepszą wymowę od mojej.
(*Other students have better pronunciation than I do*)
1 2 3 4 5
6. Kiedy czytam tekst na głos na zajęciach z fonetyki stresuję się tak bardzo, że moja wymowa jest dużo gorsza, niż kiedy czytam w domu.
(*When I read aloud in French in the phonetics class I get so nervous that my performance is at a much lower level than when I read aloud at home*)
1 2 3 4 5
7. Wstydę się, gdy nauczyciel poprawia moje błędy wymowy przy klasie.
(*I feel ashamed when the teacher corrects my pronunciation errors in front of the whole class*)
1 2 3 4 5

Odnos između samopercepcije izgovora od strane učenika i njihove razine neposredne i prizvane anksioznosti pri učenju francuskoga kao stranoga jezika

Ovaj članak predstavlja istraživanje vezano za poljske učenike francuskoga jezika i njihovu tjeskobu pri izgovoru. Naš je cilj bio produbljivanje razumijevanja anksioznosti vezane za učenje jezika kako su je iznijeli sami učenici. Još jedan cilj koji smo pokušali postići bio je ispitivanje samostalno procijenjenih i stvarnih vještina izgovora. Nismo se usredotočili samo na globalnu percepciju učenika o njihovoj sposobnosti izgovaranja, već smo u obzir uzeli i njihovu kontekstualiziranu samoprocjenu, pri čemu se od ispitanika tražilo da ocjenjuju dvije specifične izvedbe. Zaključujemo da je, čak i ako su razne vrste anksioznosti i samoprocjene razine sposobnosti međusobno povezane, priroda ove veze još nedostižna.

Ključne riječi: učenje stranih jezika, anksioznost pri izgovaranju, samopercepcija izgovora

