# PERSONALITY AS A CORRELATE OF ACCENTEDNESS: THE CASE OF FORMAL SETTING WITHOUT PRONUNCIATION-FOCUSED INSTRUCTION

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**Abstract**
The main goal of the study reported in this paper was to verify whether the Big Five personality traits can be considered correlates of accentedness in a setting deprived of pronunciation-focused instruction. Each trait was measured among 58 English majors in Poland, who were just beginning their education at the university, by the means of the Polish version of Goldberg's measure, i.e. IPIP-BFM-50. The levels of the traits were correlated with the participants' degree of accentedness assessed by 2 judges on a 9-point Likert scale with the use of a reading task. The quantitative data were supplemented by interviews with 10 participants representing high and low levels of accentedness, which allowed to diagnose their motivation, attitudes towards the sound of English, pronunciation self-perceptions, and strategies applied in autonomous learning. The quantitative data showed a weak correlation only between Openness to experience and accentedness, which was further moderated by the other above-mentioned individual learner differences. Additionally, the qualitative outcomes suggested the importance of Agreeableness, which was found to be very high or high among learners with the lowest levels of accentedness.

**Key words:** Big Five personality traits, accentedness, formal setting, lack of pronunciation-focused instruction

## Introduction

Extensive research in differential psychology, specialising in identifying and describing individual differences (IDs) and the relationships among them, has shown that people vary substantially in their needs, wants, in how they think, feel, and behave (Revelle et al., 2011). For several decades second language acquisition (SLA) researchers have been examining if and in what way IDs determine success in foreign language (FL) learning. As Cohen and Dörnyei (2002, p. 170) explain,

"[w]hen learners embark on the study of an L2, (…) they carry a considerable 'personal baggage' that will have a significant bearing on how learning proceeds" (p. 170). Similarly, Horwitz (1999) states, "Language learners are individuals approaching language learning in their own way" (p. 558). Ellis (2004) adds that individuals learning an additional language "(…) vary not only in the speed of acquisition but also in their ultimate level of attainment, with a few achieving native-like competence and others stopping far short" (p. 526). All in all, studies show that IDs shape the rate, route and final attainments in FL learning. As Dörnyei (2005, p. 2) sums up, "IDs have been found to be the most consistent predictors of L2 learning success (…) and no other phenomena investigated within SLA have come even close to this level of impact" (p. 2).

Despite the general agreement about the unquestionable effects of IDs on the process of and success in FL learning (e.g., Botes et al., 2020; Teimouri et al., 2019), there is still lots of space for further investigations. The area of research is, however, highly challenging, due to, among others, the constantly evolving theoretical foundations, multiple non-uniform taxonomies, and the variety of instruments applied to measure particular factors. The difficulty in studying this matter stems also from the dynamic nature of many IDs, them being interrelated with one another (Gurzynski-Weiss, 2020; Serafini, 2017), and determined by contextual factors (de Bot & Fang, 2017; Lowie, van Djik, Chan, & Verspoor, 2018). However, further studies on IDs in FL learning are evidently needed since their better understanding can lead to more effective instruction, tailored to learners representing particular cognitive, affective and personality profiles.

It also appears that some factors (e.g., anxiety, motivation, aptitude, learning strategies) have been more frequently researched than others. Among IDs not researched extensively is personality (Piechurska-Kuciel, 2020). This phenomenon might be surprising, taking into consideration that not only SLA researchers but also FL teachers intuitively feel that personality might by a key factor explaining variation in L2 learning (e.g., Dewaele, 2022). Moreover, success in mastering some language skills and subskills/aspects as being potentially effected by selected IDs has captured more attention of researchers than attainment in other (sub)skills. FL pronunciation is one of the aspects whose predictors of successful acquisition and learning still need to be further explored. The relationship between personality and FL pronunciation seems to be particularly worthwhile examining when taking into account the fact that pronunciation is part of one's identity (Guiora et al., 1972; Walker, 2011) and its learning is so emotionally loaded like no other language aspect (Baran-Łucarz, 2014). The strength of the link, however, may differ depending on the dimensions of personality and on whether attention of the learner is drawn to pronunciation (i.e. when being provided with pronunciation-focused instruction) or not. Thus, the aim of this paper is to fill in this gap, by reporting a study - part of a larger longitudinal project on determinants of success in pronunciation learning in formal settings with and without pronunciation-focused

instruction - exploring the Big Five personality traits as potential correlates of accentedness. Before, however, the research design is described, and the quantitative and qualitative outcomes of the study are presented, earlier research on predictors of pronunciation attainments and on the role of personality in SLA are delineated.

## 1. Individual differences and pronunciation – basic considerations and earlier research

There is a general agreement (e.g., Celce-Murcia et al., 2010; Derwing & Munro, 2015; Mora, 2022; Pennington & Rogerson-Revell, 2019) that success in pronunciation learning is determined by two types of factors, i.e. external/contextual/environmental and internal/learner factors, with the latter embracing many IDs. However, more precision is needed when classifying these variables, since sometimes such external factors as length of residence in a TL country, age of arrival to a TL community or age of onset of L2 learning are regarded as IDs. To introduce some more order into the matter of the determinants of successful FL pronunciation attainments and refrain from making overgeneralisations, it is worth clarifying that the rate and final success in mastering this subskill depend, first of all, on such external factors as the type of input (e.g., formal – in the FL classroom, informal – outside the FL classroom, mix of formal and informal contexts, foreign language vs. second language context, type of pronunciation-focused instruction (PfI) offered, e.g., explicit/implicit, task-based, focus on forms(s)/meaning, pronunciation course vs. integrative course), quality of input (native models vs. non-native models) and quantity of input (e.g., a few hours a week vs. everyday exposure and use). It is only then that IDs come into play, by modifying how these external variables are made use of by the learners, shaping not just the tempo of progress and ultimate achievements, but also the way of learning. It is by observing the interplay between these two sets of factors that the mosaic of determinants of successful pronunciation mastery can become less ambiguous. On top of that, what needs to be precisely defined so as to provide a clearer picture of the determinants of successful pronunciation learning is the goal of the learner. Different conclusions can be drawn in the case of predictors of accentedness (degree of difference between speech and a local or reference accent), intelligibility (degree of match between a speaker's intended message and what a listener actually hears), comprehensibility (the listener's perceived amount of effort put when trying to understand an utterance) or fluency ("degree to which speech flows easily without pauses or other dysfluency markers") (Derwing & Muro, 2015, p. 5).

Let us see how the conclusions differ depending on the above-mentioned factors. The first well-known study of the correlates of "accurate pronunciation" was that of Suter's (1976, p. 233), whose results were reanalysed and reported again by Purcell and Suter (1980). The outcomes showed the predictive strength of four factors in the case of immigrants living in the TL community, i.e.: L1,

aptitude for oral mimicry, number of years spent in the TL country, and strength of concern for pronunciation. At the same time the researchers discredited explicit pronunciation-focused instruction, though this variable was neither sufficiently explored among the participants nor controlled in any way. Yet, different conclusions from data gathered among immigrant populations were drawn by Derwing and Munro (2013) and Trofimovich and Baker (2006). This time, however, the researchers were interested more in L2 speaking fluency. While in the former study, the amount of interaction and socializing with native speakers (NSs) were found to be the key predictors, in the latter – it was the age of onset of TL learning. Age- and experience-related factors were less significant predictors in research focused on L2 pronunciation accuracy achieved in the FL classroom context. On the basis of their data, Saito et al. (2017; 2019) pointed to the most significant role of motivation and aptitude, respectively.

A thorough analysis of prior study outcomes and further research taking into account representatives of biological, cognitive, affective, and socio-psychological variables would shed light on the most significant predictors of particular pronunciation-related goals in particular settings. Among the most popular IDs examined more recently, which have been found to be linked to successful pronunciation attainment, are: age (e.g., Granena & Long, 2013), aptitude (e.g., Saito et al., 2019), working memory (e.g., Mora, 2022), cognitive style (Baran-Łucarz, 2022), anxiety (e.g., Szyszka, 2017, Baran-Łucarz, 2016), motivation (e.g., Baran-Łucarz, 2017, Nagle, 2018), willingness to communicate (Baran-Łucarz, 2014), beliefs and attitudes (Baran-Łucarz, 2017, Jarosz, 2019), and ethnocentric tendencies (Gatbonton et al., 2011; Szyszka & Baran-Łucarz, in press). As stated earlier, although some research on the importance of personality – one of the socio-psychological variables – for L2 pronunciation attainments has been carried out, it is relatively scarce in comparison to studies on other IDs. The factor is introduced and its importance for pronunciation learning is discussed more thoroughly in the next subsection.

## 2. Personality and its role in SLA

According to Dörnyei (2005), personality is "the most individual characteristic of a human being" (p. 10). Allport (1961), defines it as "a dynamic organisation, inside the person, of psychological systems that create the person's characteristic patterns of behaviour, thoughts and feelings" (p. 11). Although it is significantly shaped by genes, it is also determined by unique life experiences of each individual (Kandler et al., 2020). McAdams and Pals (2006) further clarify that personality refers to our tendencies to adapt and respond to specific needs of everyday life. These tendencies are, in turn, shaped by "the influence of time, situations, and social roles, culminating in individual life narratives that explain how a given person creates meaning in their life." Finally, all these processes are modified by culture (Piechurska-Kuciel, 2022, p. 2018). As Piechurska-Kuciel

(2022) further adds, "the impact of the construct is essential in daily interaction" (p. 218). This explains why it is sure to have a vital influence on L2 acquisition and learning, which constantly involve interaction with others, both in informal (TL native speakers, other L2 users) and formal settings (other students, the teacher) and with the learning materials. No wonder it was already in 1981 that Krashen stressed the significant contribution of personality to second language acquisition, and that Dörnyei (2006) considered it one of the most important determinants of success in SLA, next to aptitude, motivation, learning style and strategies.

Although now personality has begun to attract more SLA researchers (e.g., Dewaele, 2022; Piechurska-Kuciel, 2022; Przybył & Pawlak, 2023), it took many years before it received the deserved attention (e.g., Biedroń, 2011). Among the explanations for this state is the small effect size observed in earlier studies, with the construct being found to explain only 15% of variance in FL learning (Ellis, 1994). Moreover, what might have discouraged linguists from examining the role of the construct in L2 learning is the variety of personality theories, taxonomies, overlapping dimensions, and the lack of fully valid, reliable and accessible instruments measuring personality traits (Piechurska-Kuciel, 2020). Moreover, it appears that the direct influence of personality on FL learning might be difficult to observe in a straightforward manner. Its effect can be detected mostly by tracing its influence on or relationship with other variables. This was suggested already several decades ago by Krashen (1981; 1982), who stressed the link of personality with avoidance behaviour and motivation. Despite these difficulties, there is no doubt that further investigations on the way personality determines FL learning need to be carried out, since the knowledge about the link can contribute to more effective L2 learning and teaching.

The first approaches to personality were so-called type-focused. They were based on qualitative differences among people and the attempt to categories individuals "into a certain number of clear and autonomous types" (Piechurska-Kuciel, 2002 , p. 219). Carl Jung's (1923) temperamental theory, grounded in attitudes to external objects (extroversion/introversion) and in cognitive processes (thinking/feeling), and Briggs and Myers' (Myers, 1980) dichotomy with sixteen psychological types (eight extraverted and eight introverted types) belong to this tradition. Although the theories considerably developed our understanding of human behaviour, they were criticised for the assumption that individuals can be classified into distinct categories. Consequently, a trait-focused approach based on quantitative differences among individuals was offered. This time, "individuals are placed on a trait continuum signifying how high or low each individual is on any particular dimension, instead of being segregated into categories" (Piechurska-Kuciel, 2002, p. 221), with the strength of this approach being its reliance on observable behaviours (Hampson, 2012). Cattell's (Cattell et al., 1970) sixteen personality traits and Eysenck's (1950) structural personality model, with the core being the distinction between Extraversion/Introversion, Neuro-

ticism/Stability and Psychoticism/ Normality follow this approach. They laid the foundations for yet another taxonomy, which has become the most popular among SLA researchers, i.e. to the Five Factor Model, the Big Five Model (BFM) or simply – the Big Five (McCrea & Costa, 2004). It embraces "five broad dimensions of personality domains … that can describe an individual, regardless of language or culture" (Piechurska-Kuciel, 2002, p. 222). These are: Emotional stability, Extraversion, Openness to experience, Agreeableness, Conscientiousness, with each being independent of the other and placed on a separate continuum and embracing six constituents, which can be said to consist of yet further facets or markers (Clark & Watson, 2008). More specifically, the five main domains can be described in the following manner (Struś, Cieciuch & Rowiński, 2014):

- Emotional stability (vs. Neuroticism) – the level of emotional stability and resistance, and tolerance to frustration
- Extraversion (vs. Introversion) – the level of activity, energy, sociability, social self-confidence
- Openness to experience (vs. low Openness) – the level of intellectual openness, creativity, imagination use, attitude towards novelty
- Agreeableness (vs. low Agreeableness) – attitudes towards people, the level of trust and sentiments
- Conscientiousness (vs. low Conscientiousness) – the level of organization, diligence in pursuing goals and performing tasks, proneness to order and dutifulness

The domains that interested SLA researchers the most are Emotional stability, referred to more often as Neuroticism, and Extraversion. However, all of them might be important for success in mastering FL pronunciation, though to a different degree depending on whether learners' attention is drawn to this subskill or not. Below is brief overview of earlier studies on personality and specifically pronunciation learning.

## 3. Personality and FL pronunciation-related attainment – review of earlier studies

The data at our disposal do not allow us to draw clear-cut conclusions on whether and how personality shapes success in achieving fluency, comprehensible speech or nativelike accent. Many studies (Baran-Łucarz, 2011; Derwing & Rossiter, 2002; Horwitz et al., 1986; Kitano, 2001; Szyszka, 2011) have shown that anxiety – the major constituent of Neuroticism – has a negative influence on the process of pronunciation learning and the level reached by L2 learners. Baran-Łucarz (2012) has also found important links between various dimensions of ego boundaries and pronunciation accuracy in the case of a formal setting with explicit PfI.

However, the most popular personality trait explored as a potential correlate of L2 pronunciation is Extraversion. Still, the outcomes of studies are not only incompatible but at times even contradictory. Purcell and Suter (1980), Daele

(2005), and Oya et al. (2004) reported no relationship between Extraversion and accentedness on pronunciation accuracy, respectively. Other studies, on the other hand, have suggested that it is a predictor of fluency (Rossier, 1976), learners' global impression (Oya et al., 2004) and pronunciation accuracy in formal settings (Zárate-Sández, 2017). Finally, some (e.g., Busch, 1982) have found Extraversion to correlate negatively with pronunciation accuracy. As shown, the direction and strength of relationship between Extraversion and aspects of oral performance related to pronunciation remain unclear. This calls not only for a careful analysis of the earlier studies from the perspective of the applied methodology, setting, type of instruction provided in the classroom and the observed pronunciation attainments, but also for further systematic and meaningful data. The research, however, should concern the role of not only Extraversion but also other personality traits in mastering pronunciation in various settings.

Among studies that have explored the link between several dimensions of personality and pronunciation accuracy is that of Hu and Reiterer (2009). The research was conducted among 62 German students of English, with personality measured with the NEO-FFI (Costa & McCrae, 1992) and "pronunciation talent" with a "phonetic-articulatory task" assessed on a 6-point scale by 1 rater, whose scores "highly correlated with median scores of another five native speaker raters" (Hu & Reiterer, 2009, p. 119). When Extraversion, Openness to experience and Neuroticism are concerned, no significant relationships were found. However, moderate correlations of .31 and .25 were observed in the case of Conscientiousness and Agreeableness, respectively, with the "more talented persons" being "more agreeable and less Conscientious" (p. 120). Moreover, the same study showed that empathy was a significant correlate of accurate pronunciation ($r=.26$, $p=.024$). Another researcher investigating the link between the Big Five personality traits and pronunciation is Zárate-Sández (2017). This time, the data were gathered among 51 highly advanced American learners of Spanish, whose level of accentedness was rated with the use a picture description task and a 6-point accentedness Likert scale. To measure personality profiles of the participants, a "Big Five personality test" (p. 232) available at http://www.outofservice.com/bigfive was applied. The outcomes revealed that not only Extraversion was an important correlate ($.364$, $p<.01$), but also Neuroticism ($.589$, $p<.01$). The other traits showed no significant links with accentedness. In the case of both studies described briefly above (Hu and Reiterer (2009); Zárate-Sández (2017)), it is unclear if the participants had undergone any phonetic training and, if so, what it looked like. The research project described in this paper is yet another attempt to shed more light on the link between pronunciation attainments and personality, however the contextual background is carefully taken control of. More specifically, it aims to answer the following research question (RQ):

RQ1: Are any Big Five personality traits – Emotional stability, Extraversion, Openness to experience, Agreeableness, Conscien-

tiousness – significantly linked to the level of accentedness in the case of lack of pronunciation-focused instruction?

RQ2: What other ID factors can potentially impact this link?

## 4. Methodology

### 4.1 Participants

To answer the research question, a study was designed and conducted, which involved 58 (44 female and 14 male) first-year students of the Institute of English Studies, University of Wrocław. The mean age of the participants was 20.2, with the youngest learners being 19, and the oldest – 23. Having passed the extended version of the high-school leaving exam with the highest results, their level can be considered upper intermediate (B2 – C1, according to the CEFR). At the time of data gathering, the students had just begun a 60-hour practical course of phonetics, being assigned either to one of the two groups taught by the author of this paper or to groups taught by two other colleagues. Most of the participants (67%), besides learning English in a public kindergarten, primary and secondary school, had extra classes for approximately 3 years (M= 3,4) either in a language school or in the form of private tuition. Only 36% declared having classes with native speakers of English, however for not longer than 8 months. It is crucial that in none of these courses had the students been provided with systematic pronunciation-focused instruction, with the most common answers provided by them being: 'I was only corrected when I mispronounced some words' and 'I don't remember practising pronunciation during me English lessons'. Additionally, all of the students mentioned various forms of exposing themselves to authentic English outside the classroom by listening to songs (87%), watching English films in their original version (82%) and shorter videos on e.g. Tiktok (73%), and talking to foreign friends (native (28%) or non-native speakers (72%)) in English either live (15%) or online through communicators (85%). Although 70 learners out of a total of 120 newcomers volunteered to take part in the project, the results of 12 could not be taken into account due to the need to control several variables. Consequently, those who were not Poles, had stayed abroad for more than a month, had been provided with pronunciation instruction or did not consider a native-like level of pronunciation their goal, were excluded from study.

### 4.2 Instruments and data gathering procedures

#### *4.2.1 The personality battery and background information questions*

Collecting data began with the application of written questionnaires allowing to (1) diagnose the subjects' personalities and (2) control extraneous variables.

They could be filled out either during one of the phonetics classes or online via Teams Forms in the participants' free time. Participation in the project was voluntary, and agreement to join in denoted at the same time the students' consent to use the data anonymously for scientific purposes. The participants were asked to choose a nick or digit and use it consistently during all the stages of data collection.

The five personality traits of the participants were measured with the use of a Polish standardized version (Struś, Cieciuch & Rowiński, 2014) of Goldberg's (1999) battery, called the International Personality Item Pool–Big Five Model–50 (IPIP–BFM–50). A few factors affected the choice of this instrument from among many available tools, i.e. it was designed for research purposes rather than individual assessment, it has very good psychometric properties, it is non-commercial and free of charge. The battery has the form of a 50-item questionnaire with a 5-point Likert scale (from 1 – strongly disagree – to 5 – strongly agree), and 10 items addressing each of the five personality traits. For every trait the score could range from 10 to 50 points, with the higher scores denoting a higher level of a particular trait. Table 1 displays more specifically how high and low scorers in the case of each dimension can be characterised.

| **Personality trait** | **High scorers** | **Low scorers** |
|---|---|---|
| Emotional stability | calm, relaxed, not prone to negative emotional states | anxious, nervous, moody, prone to worry, oversensitive, touchy, prone to anger and irritation |
| Extraversion | active, energetic, extraverted, talkative, bold, assertive | introverted, reserved, quiet, and socially inhibited |
| Openness to experience | intellectually active, cognitively open, creative, introspective, having a vivid imagination and a wide range of interests | unintellectual, non-inquisitive, unimaginative, simple, unsophisticated, unreflective and uncreative |
| Agreeableness | trustful, kind, considerate, warm, cooperative, helpful | distrustful, selfish, unkind, rude, and emotionally cold towards other people |
| Conscientiousness | organized, diligent, thorough and efficient in what they do, systematic and dutiful | unsystematic, inconsistent, unconcerned with order and planning, negligent, careless, and undependable |

**Table 1.** Characteristics of high and low scorers of the personality traits from the BFM (Goldberg, 1992, cf. Struś, Cieciuch & Rowiński, 2014, p. 352)

The formulation of 23 statements demanded the use of reverse coding. The internal consistency (Cronbach alpha) for each trait was satisfactory in this study, ranging from .89 to .92.

The questionnaire was followed by a few open and Likert scale questions that allowed to control several variables. The questions concerned the participants' level of motivation to speak with a nativelike accent (writing a digit from 1 to 6, where 1 meant 'I don't mind speaking with a Polish accent at all' and 6 – 'I want to achieve native like accent'), stays abroad, prior English learning experience ('Where were you studying English'?), the amount and type of exposure and use of English outside the classroom, pronunciation learning experience in the FL classroom ('How was pronunciation explained and practised during your English classes?'), use of pronunciation strategies in autonomous learning ('Do you practise pronunciation on your own? How?'), accent preferences (British vs. American), and their prior English teachers' nationalities (whether they were native or non-native speakers and how long they were teaching the participant).

### *4.2.2 Assessment of accentedness*

The level of accentendess was assessed with the use of a task consisting in passage-reading. The text was borrowed from Celce-Murcia et al. (2010, p. 398), and concerned the matter of factors affecting accentedness and pronunciation learning. The reading was one of the tasks that was performed by every first-year student so as to enable a diagnosis of their pronunciation problems and help them set short- and long-term goals. To have a sample of pronunciation that would not be highly controlled and at the same time still allow comparison of students' performance, the participants were given only a minute to get accustomed with the text. Moreover, they were asked to focus on its meaning in order to be able to discuss its content and share their opinions about it after reading.

The performance was recorded in a quiet room, with the use of a microphone Rode NT-USB attached to a laptop Asus NX90JQ with an internal sound card, during individual meetings with one of the phonetics teachers. It was coded with the same nick or digit as the written tests. The recordings of 30 participants[1] were assessed by the author of this paper and yet another phonetics teacher, both of whom had over 25 years of teaching practical courses of phonetics to Polish learners of English. Following Munro (2017), the judges were to provide from 1 to 9 points for every sample, where 1 denoted 'no accent' and 9 – 'very strong accent'. Although the judges did not consult the criteria of assessment, they both intuitively focused on the same aspects of pronunciation (word stress, particular segments, intonation contours, sentence stress, mispronounced words, consistency in using one of the accents), which explains the high inter-rater reliability (.92). The satisfactory agreement justified the author's decision to

[1] Due to time limitations, the cooperating phonetician could not assess more than 30 samples.

assess the remaining samples on her own, doing it twice with a two-week break between the periods of assessment, keeping the consistency at a high level (.94).

The quantitative data – results on the questionnaire and accentedness – were introduced into SPSS so as to enable the computation of descriptive statistics and correlation coefficients between the five personality domains and the level of accentedness.

*4.2.3 Semi-structured interviews*

After having assessed the level of participants' accentedness, 10 students whose performance was considered the most and the least accented were invited to meet the researcher individually on Microsoft Teams in order to take part in semi-structured interviews. While 7 participants with a very low level of accentedness accepted the invitation, only 3 representatives of high accent did so. The interview had a few goals. First of all, it aimed at verifying the five personality traits of the participants that the IPIP–BFM–50 revealed. This was achieved by asking the respondents to characterise their personality profiles. More specifically, a few questions based on the statements from the questionnaire were posed to find out whether the answers corresponded to those provided by them in IPIP–BFM–50. In all the cases the self-perceived personality traits revealed in the oral responses supported the results on the IPIP–BFM–50. Secondly, questions concerning students' feelings/attitudes towards the sound of English, strength of motivation to speak with a nativelike accent and interest in pronunciation in the past, their self-assessed level of pronunciation, and strategies used to improve it were asked. These not only confirmed the short answers provided in the written instrument but also shed more light on the complex interconnected network of accent determinants and the moderators of the link between accentedness and the personality traits. The interviews were audio-recorded, to enable their transcription and a more thorough analysis, consisting in identifying the above-mentioned individual differences of the students (their level of motivation, how positive their attitudes towards the sound of English were, how high they perceived their level of pronunciation, types of pronunciation learning strategies they used).

## 5. Results

### 5.1 Quantitative data

Table 2 displays the descriptive statistics of the scores achieved by the participants for their accentedness and the results of IPIP–BFM–50. The data for the level of accentedness show that a full range of scores was achieved by the participants (from 1 to 9 points). However, the mean suggests that there was generally a lot of space for improvement, with it being relatively high, i.e. reaching 6.07. Although the participants' means for Extraversion, Openness to experience, Agreeableness

and Conscientiousness are relatively high, the standard deviations signal a high level of heterogeneity of the traits. What seems interesting is the level of Emotional Stability, strictly related to anxiety, which is not as high as might be expected from students majoring in English as a FL (EFL).

| | **Accent** | **Emot. st.** | **Extrav.** | **Openness** | **Agreeabl.** | **Consc.** |
|---|---|---|---|---|---|---|
| **Mean** | 6.07 | 25.12 | 29.40 | 37.57 | 39.29 | 33.53 |
| **SD** | 1.83 | 6.48 | 8.05 | 5.20 | 4.77 | 7.33 |
| **Min** | 1 | 10 | 10 | 10 | 10 | 10 |
| **Max** | 9 | 50 | 50 | 50 | 50 | 50 |
| **Low** | 1 | 15 | 11 | 23 | 23 | 17 |
| **High** | 9 | 40 | 45 | 48 | 48 | 48 |

Note: Emot. St. – Emotional stability, Extrav. – Extraversion, Agreeabl. – agreeableness, Consc. – conscientiousness.

**Table 2.** Descriptive statistics for accentedness and the Big Five personality traits.

The basic statistics were necessary, among others, to be able to verify the assumptions underlying further analysis, i.e. correlation. Since the normality assumption in the case of the scores on accentedness was not met, the non-parametric Spearman test was computed to answer RQ1. Table 3 presents the outcomes of these calculations. As the results show, only one of the personality traits – Openness to Experience – was found to be a significant, though week, correlate, revealing a small size effect and explaining 6.81% of variance in students' level of accentedness (Plonsky & Oswald, 2014).

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| | **Emot. st.** | **Extrav.** | **Openness** | **Agreeabl.** | **Consc.** |
|---|---|---|---|---|---|
| **Accent** | .080 | -.133 | -.261* | -.048 | .065 |

Note.: *p<.025

Note: Emot. St. – Emotional stability, Extrav. – Extraversion, Openness – Openness to experience, Agreeably. – Agreeableness, Consc. – Conscientiousness.

**Table 3.** Results of Spearman correlation between the level of accentendess and the Big Five personality traits

## 5.2 Qualitative data

The written answers to the open questions following the IPIP–BFM–50, and responses of the participants provided in the interviews allow drawing a more comprehensive picture of the students with a low level of accentendess. To make it easier to follow and to be able to observe some potential tendencies, the data have been summarised in the form of a table (Table 4).

| P. No | Accent | Emot.st. | Extrav. | Openness | Agreeabl. | Consc. | Motiv. | Att. | Self-assess. |
|---|---|---|---|---|---|---|---|---|---|
| 73 | 3 | VL | RL | VH | H | A | VH | P | RL |
| 67 | 2 | L | L | VH | H | A | VH | VP | RH |
| 52 | 3 | L | RL | VH | H | RH | VH | P | RH |
| 43 | 1 | RH | A | VH | H | RH | VH | VP | RH |
| 28 | 3 | L | A | RL | H | A | VH | VP | RL |
| **17** | **2** | **VH** | **VH** | **H** | **VH** | **VH** | **VH** | **VP** | **RL** |
| 37 | 2 | VL | RL | VH | H | A | VH | VP | RL |

Note: Emot. St. – emotional stability, Extrav. – extraversion, Agreeabl. – agreeableness, Consc. – conscientiousness, Motiv. – motivation, Att. – attitudes, Self-assess. – pronunciation self-assessment, L – low, H – high; V – very; A – average; R – rather; P – positive, P. No. – participant number

**Table 4.** Profiles of participants with the lowest levels of accentedness

In the case of participant 17, whose pronunciation was considered almost nativelike (2 points), we seem to have a perfect combination of personality traits and individual differences for reaching highest levels of the TL accent. Not only is he/she emotionally very stable, very highly extraverted, agreeable, conscientious, and highly open to new experiences, but also very strongly motivated to speak without an L1 accent, with very positive attitudes towards the sound of English, and a rather low pronunciation self-perception that pushes him/her consistently harder towards higher levels. Looking carefully at the personality traits of the other students whose pronunciation was assessed as (very) close to native-like, we can observe that indeed most regularity is visible in the case of Openness to experience, with it being usually very high. What, however, also captivates attention is the very high concern for nativelike accent, very positive attitudes towards the sound of the TL and lack of full satisfaction from one's level of pronunciation, despite it being already very high. The following comments were offered with respect to the above factors in the oral interviews:

Motivation to speak with a nativelike accent:

- '*I have always wanted to sound like a British native speaker.'* [P 17]
- *'I have never given up trying to improve my pronunciation. This aspect of English has always attracted my attention.'* [P 67]

Positive attitudes towards the sound of the TL:

- '*I have always been fascinated with the sound of English.'* [P 43]
- '*I have loved it ever since I can remember.'* [P 67]
- '*It has always seemed to me more beautiful than Polish*.' [P 37]

Self-assessment: feeling the need to improve

- '*I'm a perfectionist and push myself hard cause I realise there are still areas to improve.'* [P 43]
- '*I know it's not bad but there's still a lot to work on.'* [P 28]

Interestingly, when asked about strategies the students tended to use to practise pronunciation, they claimed they could not recall anything special, and provided the following explanations:

- '*I have always loved talking to myself in English.'* [P 52]
- '*Exposing myself to English via music, films, shows.'* [P 28]
- '*I can't remember doing any particular exercises, but my attention has always been, kind of, directed towards the way English sounds.'* [P 17]

A justification of the problems the participants had with reporting pronunciation strategies they would be applying in autonomous learning might be the lack of awareness of using such tactics and/or problems with verbalising them.

As far as the profiles of the participants with high levels of accentedness are concerned, tendencies are more difficult to observe due to the small number of volunteers joining the interviews. However, indeed the level of Openness to experience in all three cases was (very) low. The remaining traits lacked any pattern. With regard to other IDs, motivation was evidently low (e.g., *'I wasn't that interested in pronunciation. I was and still am more into my vocabulary. I would like it to be very rich and appropriate.'* [P 71], attitudes – rather indifferent (e.g., *'English sounds ok to me, just as any other language, I guess.'* [P 60]), while self-assessment varied from rather low to rather high (e.g., *'It's far from perfect, but I think it's not that bad at all.'* [P 50]). As in the case of the subjects with nativelike accents, these too found it difficult to mention any strategies they were using, explaining e.g., *'I can't recall doing anything special.'* [P 53].

## 6. Discussion

The study reported above aimed at exploring whether any of the Big Five Personality traits can be considered a correlate of the accentedness level. It is vital to stress that the research concerned a very specific, and the same time a quite typical, context, i.e. classroom learning deprived of explicit pronunciation-focused instruction. The results of the quantitative part of this project suggest that in such a setting and conditions, the only personality trait that links to accentedness is Openness to experience. As in the case of Daele's (2005), Oya et al.'s (2004) and Hu & Reiterer's (2009) study, no relationship was found with Extraversion. Unlike the wide range of data that have shown the negative influence of anxiety – one of the main facets of Neuroticism – on various aspects of spoken production related to pronunciation, and in contrast to the outcomes of Zárate-Sández's (2017) study, where Neuroticism proved to be an important variable of accentedness, this time no connection was found, either. Similarly, Conscientiousness and Agreeableness appeared to be non-significant correlates of accentendess, However, in the case of the latter, some tendency was observed in the qualitative data provided by participants with the lowest levels of accentedness, i.e. most of them had very high or high levels of Agreeableness. The direction of the link goes hand in hand with the outcomes of Hu and Reiterer (2009), who found a moderate relationship between pronunciation attainment and the degree of Agreeableness.

All in all, the data imply that without appropriate guidance in the form of explicit pronunciation-focused instruction, which leads to more conscious focus on pronunciation in learning and production, Neuroticism, Conscientiousness, and Extraversion do not determine how close our accent approximates to the TL model. In other words, the beneficial features of Extraverts (providing oneself with more exposure and practise of the TL due to the easy-goingness, activity and talkativeness), those who are Emotionally stable (calm and in control of emotions), and Conscientious (well-organised, diligent, systematic) do not seem to support progress in reaching nativelike accent when no attention is drawn to the gap between the features of the TL model and one's own production. The situation appears to be different in the case of students highly Open to new experiences, who are naturally inclined to be more introspective, imaginative, intellectually active and cognitively open. Moreover, it is possible that higher levels of Agreement, revealing itself in being more trustful, kind and warm towards others, may also make learners more sensitive to the accent their interlocutors speak with. It is probable that these features by definition form a more conscious FL learner. However, as stressed by Piechurska-Kuciel (2020), most probably it is not only the personality traits themselves that shape FL attainments (in this case – TL accent), but its relations with other variables – IDs (e.g., motivation, self-assessment, attitudes, strategies) and contextual constituents (the type of instruction offered). These data suggest that even when no pronunciation

instruction is offered to learners, those who are more open to experience reveal less accented speech, particularly when they are highly motivated to reach nativelike accent, like the sound of the TL, and see space for their further improvement.

## 7. Conclusions

The study reported in this paper showed that when students were not provided with explicit pronunciation-focused instruction, the only the Big Five personality trait that significantly correlated with accentedness (-.26; $p<.025$), explaining about 7% of variance in the degree of accentedness was Openness to experience. Additionally, the profiles of students with low levels of accentedness revealed high and very high degrees of Agreeableness. This implies that when students' attention is not drawn to pronunciation and it is not consciously practised, those who have higher levels of Openness to experience are more prone to achieve an accent free from the influence of L1. It seems, however, that the relationship is moderated by other variables, such as high motivation to speak with a nativelike accent, fascination with the sound of the TL, and relatively low pronunciation self-assessment and a belief in their being still space for improvement. This also supports the idea that it is most probably a specific combination of mutually interacting IDs (e.g., motivation, self-assessment, personality, cognitive factors, affective factors) that determines accentedness, rather than single factors. Further statistical analyses (e.g., regression analysis, principal component analysis) are needed to see the complex mosaic of the moderators of accentedness in this setting.

Despite several steps being taken to make the study results as reliable as possible, the project is not free from limitations. First of all, the number of participants was relatively low. Secondly, despite the fact that the task applied for eliciting speech samples pressured the students to focus on meaning rather than form, it is worth replicating the study with a free speech stimulus (e.g., picture description). Thirdly, it would be recommended to have all the speech samples assessed by both raters.

As stated earlier, the research presented herein is part of a larger longitudinal project. Therefore, what will be further observed is the role of personality and other selected IDs in settings *with* pronunciation-focused instruction. Moreover, an attempt will be made to build a model showing which IDs (FD/FI, working memory, anxiety, personality, ethnocentrism) are the most significant predictors of accentedness and to find the most effective techniques/ interventions/ feedback giving techniques and strategies for particular types of students. The same procedures are planned to be replicated in the case of comprehensibility and intelligibility – the more common goals for average FL learners. Finally, what needs to be investigated is how the Big Five personality traits moderate the links

between particular aspects of pronunciation teaching and practise and such more dynamic and externally-shaped variables as boredom, enjoyment and engagement.

## Acknowledgements

I am most grateful to my colleagues (Przemysław Pawelec, PhD and Magdalena Dziurzyńska, MA) for helping me collect the data and to assess the level of accentedness (another colleague who wished to stay anonymous). Many thanks go also to the participants of the research for agreeing to participate in the study and devoting their time to provide me with all the valuable data.

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