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## A PROBE INTO THE EXTRAVERSION AND L2 PRONUNCIATION RELATIONSHIP

*The study assessed the relation between the overall degree of the perceived foreign accent in non-natives' English speech and some personal variables which include global factors (extraversion, anxiety, tough-mindedness, independence, self-control) and contributing primary factors, extraversion being the focus of our attention. Five native speakers of English were asked to auditorily evaluate the samples of free English speech produced by each of 75 non-native speakers using the equal-appearing interval 5-point scale. The 10-point scale was used to rate each of the personality variables for non-native speakers and the interclass correlation coefficients were calculated to identify the relevant predictors of L2 pronunciation quality.*

**Key words:** L2 pronunciation, personality factors, correlation

### 1. Introduction

In this paper we introduce a project which aims to provide a comprehensive examination of personality variables in the pronunciation of a second language (L2). The study focuses on describing the first step of the experiment (pre-test). In order to understand which personality dimensions are crucial to L2 pronunciation learning, this study attempts to determine whether they correlate significantly to L2 pronunciation quality. Particular personality dimensions of the subjects are measured with a standardized questionnaire, and L2 (English) pronunciation quality is auditorily evaluated by English native speakers. We examined how the personality traits are correlated with pronunciation assessment scores, focusing on the global factor Extraversion. The complete research adds a longitudinal perspective in considering to what extent the effect of the extraversion/introversion dimension on learners' foreign language pronunciation remains stable over time.

Due to the exploratory nature of this preliminary study and the inconsistency of previous research findings, we proposed a null hypothesis for the research question "Which personality factors correlate significantly with L2 pronunciation quality?" - to the effect that "There is no relationship between the degree of extraversion and L2 pronunciation quality." Though L2 teachers and learners widely conceive extraversion/introversion as an obvious factor in L2 acquisition and there is a growing acceptance within the second language learning (SLA) community of learners' feelings and reflections within the learning process [1], the number of linguistic studies including psychological variables is relatively limited. The researchers investigating the effect of extraversion on L2 oral production mostly discovered no systematic relationship.

An intuitive feeling about the relationship between an outgoing personality and second language learning is no sufficient evidence on which to base a theory of teaching and learning, so this study tried to contribute to the investigation of this intriguing topic.

### 2. Methodology

Seventy-five (55 female and 20 male) native speakers of Slovak served as tests subjects examined in the study. They were Slovak first-year university students enrolled in the English Language and Literature course at an upper-intermediate level of English proficiency. They shared an additional number of variables such as age (range: 18-19 years), age of onset of L2 (English) learning (6-7 years) and experience/training in this L2 (the same type of English instruction in the formal setting of Slovak schools with a focus on grammar-based instruction, comparable amounts of experience in English-speaking environments).

Five native English control subjects (3 American - 2 male [I, II], 1 female [III]; 2 British - 1 male [IV], 1 female [V]) were asked to auditorily evaluate the English texts produced by each of the 75 speakers using the equal-appearing interval 5-point scale (5 - very good pronunciation; 1 - poor pronunciation). The raters were English native speakers more or less experienced in ELT (English language teaching) who had lived in Slovakia for several months. As none of the participants were professional linguists, major differences in theoretical knowledge especially about English phonetics were improbable. An average rating was obtained for each speaker and the variable "English phonic competence" (EPC) was com-

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puted by averaging across each rater's score. These assessments were correlated with the results of the psychological test.

Pronunciation samples (a free, extemporaneous talk in English) were recorded on a recorder with a condense microphone for further analysis and reference. Spontaneous speech is by definition the most natural form of speech and certainly reflects overall abilities the best, allowing especially representative impressions of fluency, speaking rate, choice of words, choice of prosodic patterns and segmental realizations. At the start of each recording session, speakers were asked to introduce themselves and talk about their families. This monologue was then extended into a short conversation with the instructor, resulting in about 5 minutes of quasi-spontaneous speech altogether. Due to the laboratory situation in a classroom at the University of Zilina, the speech production can, of course, not be called completely spontaneous, therefore we term these tasks quasi-spontaneous.

We applied a questionnaire that aims to determine whether certain personality characteristics correlate with the L2 pronunciation quality of non-native speakers. The test assesses personality traits according to major factors, namely five global factors (extraversion, anxiety, tough-mindedness, independence and self-control)

and sixteen contributing primary factors (warmth, reasoning, emotional stability, dominance, liveliness, rule-consciousness, social boldness, sensitivity, vigilance, abstractedness, privateness, apprehension, openness to change, self-reliance, perfectionism and tension) (Table 1). In order to elicit the information concerning personality from the participants, we used the 16-factor personality questionnaire [2] which took 50 minutes to complete. The test computes an individual's degree of sixteen personality factors contributing to five global factors by means of self-reported answers to 185 multiple-choice questions. An adult can score between 1 and 10 on the factor scale. The higher the score on the items of the questionnaire scale, the more the subjects tend towards the given personality trait. The administrator of the personality questionnaire was a psychologist (see Acknowledgements). The questionnaire was processed using the software Psychosoft System Brno which provided automatic scoring and interpretation. Due to space limitation, the questionnaire cannot be fully discussed here.

Relying on the data most frequently presented in research papers and theoretical discussions, we aimed at investigating the possible influence of the extraversion upon the pronunciation accuracy observed in the interlanguage of learners of English as a foreign language. The data were collected, then evaluated and the indivi-

Global factors [2]

Tab. 1

Global Factors			
Global Factors Definitions*	Contributing Primary Factors		
<i>Extraversion</i> Social orientation; the desire to be around others and be noticed by them; the energy invested in initiating and maintaining social relationships.	A Warmth	A- Reserved	A+ Warm
	F Liveliness	F- Serious	F+ Lively
	H Social Boldness	H- Shy	H+ Socially Bold
	N privateness*	N- Forthright	N+ Private
	Q2 Self-Reliance*	Q2- Group-Oriented	Q2+ Self-Reliant
<i>Independence</i> The role a person assumes when interacting with others; the extent to which they are likely to influence or be influenced by the views of other people.	E Dominance	E- Deferential	E+ Dominant
	H Social Boldness	H- Shy	H+ Socially Bold
	L Vigilance	L- Trusting	L+ Vigilant
	Q1 Openness to Change	Q1- Traditional	Q1+ Open to Change
<i>Tough-Mindedness</i> The way a person processes information; the extent to which they will solve problems at an objective, cognitive level or by using subjective or personal considerations.	A Warmth*	A- Reserved	A+ Warm
	I Sensitivity*	I- Utilitarian	I+ Sensitive
	M Abstractedness*	M- Grounded	M+ Abstracted
	Q1 Openness to Change*	Q1- Traditional	Q1+ Open to Change
<i>Self-Control</i> Response to environmental controls on behaviour; internal self-discipline.	F Liveliness*	F- Serious	F+ Lively
	G Rule-Consciousness	G- Expedient	G+ Rule-Conscious
	M Abstractedness*	M- Grounded	M+ Abstracted
	Q3 Perfectionism	Q3- Tolerates Disorder	Q3+ Perfectionistic
<i>Anxiety</i> Emotional adjustment; the types of emotions experienced and the intensity of these.	C Emotional Stability*	C- Reactive	C+ Emotionally Stable
	L Vigilance	L- Trusting	L+ Vigilant
	O Apprehension	O- Self-Assured	O+ Apprehensive
	Q4 Tension	Q4- Relaxed	Q4+ Tense

- = limit value 1, 2, 3

Average = 4, 5, 6, 7

+ = limit value 8, 9, 10

\* indicates a negative relationship between the Global and Primary Factor

dual scores of the respective test parts were analysed in descriptive statistics. It was felt more appropriate at this pilot stage of the research to limit the report to first level statistical analysis - simple correlation alone. The variables were submitted to a simple correlation analysis. The interclass Pearson correlation coefficient (r) was calculated to identify which personality factors are significant predictors of L2 pronunciation quality. The correlation coefficient was calculated by applying the scoring coefficients generated by the principal component analysis to standardized values for subjects' responses. The variables were correlated with the total pronunciation rating and the correlation coefficients were obtained. The result is statistically relevant for the phenomena with the correlation coefficients higher than the critical values for the variable length 75 on the 0.05 level = 0.1850 (Pearson's correlation). For lower values the correlation is not evident, the negative value indicates inverse proportion. The closer is the value to 1.0, the stronger is the correlation between the variables.

### 3. Results

Pronunciation rating

Tab. 2

Student	[I]	[II]	[III]	[IV]	[V]	MEAN
1	4	2	2	2	3	2.6
2	4	4	3	3	2	3.2
3	2	2	2	2	2	2
4	3	2	2	2	2	2.2
5	3	2	1	2	2	2
6	2	1	2	1	2	1.6
7	3	2	2	3	1	2.2
8	3	3	2	3	1	2.4
9	2	2	2	2	1	1.8
10	2	2	2	3	2	2.2
11	3	2	2	2	2	2.2
12	2	2	2	1	1	1.6
13	3	3	4	4	4	3.6
14	4	3	3	3	4	3.4
15	3	2	3	3	2	3.2
16	3	3	2	3	3	2.8
17	3	3	3	2	3	2.8
18	2	2	2	2	2	2
19	3	2	2	2	1	2
20	2	1	2	1	2	1.6
21	3	3	2	3	2	2.6
22	5	3	5	5	4	4.4
23	1	2	2	2	1	1.6
24	2	3	3	3	2	2.6
25	2	2	2	2	1	1.8
26	3	3	2	3	3	2.8
27	3	3	2	3	3	2.8
28	2	2	2	2	2	2

29	4	4	3	3	3	3.4
30	4	3	3	3	3	3.2
31	2	2	2	3	2	2.2
32	3	2	2	3	2	2.4
33	3	3	3	3	2	2.8
34	3	2	2	3	2	2.4
35	4	4	3	5	3	3.8
36	3	4	3	4	2	3.2
37	3	2	2	2	3	2.4
38	3	3	3	4	3	3.2
39	5	5	4	5	4	4.6
40	3	3	2	3	2	2.6
41	2	1	2	1	1	1.4
42	3	3	2	3	2	2.6
43	3	4	3	4	3	3.4
44	3	3	3	4	2	3
45	3	3	2	3	2	2.6
46	3	2	2	3	2	2.4
47	4	4	2	4	3	3.4
48	3	2	2	3	2	2.4
49	3	4	2	4	2	3
50	3	2	2	2	2	2.2
51	3	3	2	3	3	2.8
52	3	3	2	2	2	2.4
53	4	3	2	2	3	2.8
54	3	1	1	1	2	1.6
55	3	3	2	3	2	2.6
56	4	3	2	4	3	3.2
57	3	2	2	3	2	2.4
58	3	2	2	2	3	2.4
59	4	3	3	4	3	3.4
60	3	3	2	4	3	3
61	3	2	2	2	1	2
62	3	2	3	2	3	2.6
63	3	3	3	2	2	2.6
64	3	4	2	4	4	3.4
65	4	4	3	4	3	3.6
66	2	1	2	2	2	1.8
67	4	2	2	2	3	2.6
68	2	3	2	2	1	2
69	3	3	3	4	2	3
70	3	1	2	1	2	1.8
71	3	3	2	2	1	2.2
72	2	1	2	1	1	1.4
73	3	4	2	3	2	2.8
74	3	4	1	3	2	2.6
75	3	3	1	3	2	2.4
MEAN	2.99	2.63	2.28	2.75	2.25	2.59

Correlation of EPC and personality factors

Tab. 3

Student	EPC	A	B	C	E	F	G	H	I	L	M	N
1	2.6	5	4	5	5	9	3	7	5	4	7	4
2	3.2	7	4	6	3	4	6	5	5	6	9	6
3	2	5	4	6	6	5	3	4	8	8	9	8
4	2.2	7	8	2	6	6	5	7	6	5	6	4
5	2	6	4	7	8	8	4	9	7	6	6	4
6	1.6	7	5	7	6	6	4	5	2	7	4	5
7	2.2	5	5	5	5	7	2	5	6	6	9	7
8	2.4	5	5	5	6	7	5	8	4	5	3	4
9	1.8	4	5	4	2	5	6	3	5	4	7	8
10	2.2	6	4	5	3	2	6	3	6	6	4	6
11	2.2	9	6	8	7	4	6	9	7	8	3	4
12	1.6	8	5	4	3	7	5	6	7	9	6	3
13	3.6	6	6	6	6	6	3	8	5	6	4	3
14	3.4	8	3	2	5	7	6	6	7	7	9	4
15	3.2	7	7	6	5	4	6	4	7	5	8	4
16	2.8	9	6	6	5	7	4	7	6	4	5	5
17	2.8	5	4	2	10	8	2	5	8	9	8	8
18	2	7	4	2	3	4	5	3	8	6	6	5
19	2	5	7	4	5	6	6	5	5	6	7	3
20	1,6	4	7	4	3	6	6	3	6	8	5	5
21	2.6	5	5	4	3	5	4	6	8	5	7	5
22	4.4	7	6	6	3	8	3	8	7	6	8	3
23	1.6	4	3	6	3	5	3	5	4	6	6	7
24	2.6	5	5	4	3	8	1	7	7	4	8	3
25	1.8	5	6	4	5	3	7	6	9	8	7	6
26	2.8	5	5	7	5	7	3	7	5	6	6	4
27	2.8	5	7	6	6	7	3	8	6	5	5	5
28	2	5	6	5	6	5	8	3	7	9	7	6
29	3.4	8	4	6	7	7	7	8	7	4	3	5
30	3.2	8	5	4	7	9	3	8	6	6	4	4
31	2.2	6	6	4	6	9	2	7	7	6	6	3
32	2.4	6	5	5	1	4	6	3	8	5	3	2
33	2.8	4	5	4	2	4	8	5	6	6	7	7
34	2.4	8	7	6	6	7	6	6	6	7	6	4
35	3.8	3	6	5	6	3	6	4	7	6	4	7
36	3.2	7	5	4	8	7	5	6	8	8	7	6
37	2.4	9	7	6	4	9	3	9	3	5	3	2
38	3.2	5	3	6	5	4	6	8	7	6	8	4
39	4.6	5	5	5	5	7	6	8	5	8	5	5
40	2.6	7	5	5	5	6	6	7	6	6	3	8
41	1.4	8	6	3	8	8	4	7	7	9	9	5
42	2.6	8	6	7	6	7	4	6	5	5	8	3
43	3.4	3	6	4	2	4	5	5	6	5	8	8
44	3	5	6	3	7	6	6	5	10	6	10	8
45	2.6	5	5	3	4	6	2	5	7	7	9	5
46	2.4	6	6	6	6	8	5	8	7	8	2	5

47	3.4	6	6	2	4	5	6	3	7	8	7	5
48	2.4	4	4	4	5	9	4	5	7	8	7	4
49	3	8	4	4	8	7	5	5	6	7	8	8
50	2.2	5	4	3	5	8	4	7	7	8	8	6
51	2.8	6	6	4	4	5	5	5	8	6	5	5
52	2.4	7	6	9	8	8	4	8	7	7	5	6
53	2.8	4	5	4	6	7	4	5	5	6	6	5
54	1.6	7	6	6	5	7	3	9	2	9	3	2
55	2.6	7	5	4	6	4	6	3	7	5	5	6
56	3.2	5	4	5	4	4	3	7	8	6	8	4
57	2.4	4	5	5	6	6	3	5	6	6	5	6
58	2.4	5	6	3	6	5	3	4	7	6	7	7
59	3.4	5	6	5	5	7	4	8	7	4	6	2
60	3	7	7	4	7	7	3	7	7	5	5	4
61	2	5	8	3	7	7	5	7	5	6	9	4
62	2.6	5	6	6	6	7	2	8	6	5	7	2
63	2.6	6	4	6	5	6	2	4	5	4	7	6
64	3.4	6	6	4	4	5	7	5	7	5	10	6
65	3.6	7	8	6	7	7	3	7	7	6	6	5
66	1.8	6	6	5	10	8	4	6	7	6	5	6
67	2.6	7	5	6	3	6	3	6	7	4	6	4
68	2	9	3	4	7	6	4	7	7	7	9	5
69	3	6	5	4	8	6	2	6	8	5	8	6
70	1.8	9	4	5	9	6	5	8	5	9	7	6
71	2.2	4	5	3	7	4	5	4	5	6	5	6
72	1.4	4	4	2	6	7	2	7	5	4	5	4
73	2.8	4	7	6	5	7	7	7	7	4	5	5
74	2.6	3	6	5	2	6	5	5	6	8	4	4
75	2.4	7	5	5	4	5	5	6	7	9	6	5
<b>R</b>		<b>-0.0219</b>	<b>0.0679</b>	<b>0.0778</b>	<b>-0.0702</b>	<b>-0.0209</b>	<b>0.0819</b>	<b>0.1296</b>	<b>0.2191</b>	<b>-0.2337</b>	<b>0.0943</b>	<b>-0.0156</b>

Student	EPC	O	Q1	Q2	Q3	Q4	EX	AX	TM	IN	SC
1	2.6	4	5	5	4	8	7	6	6	5	3
2	3.2	5	7	6	7	5	5	5	4	4	6
3	2	5	8	9	1	4	3	5	2	7	2
4	2.2	8	5	5	4	7	7	8	5	6	4
5	2	5	7	5	5	7	8	5	4	9	4
6	1.6	3	7	2	4	4	7	4	7	6	5
7	2.2	6	8	4	3	4	6	5	3	6	2
8	2.4	4	6	5	3	3	7	4	7	7	5
9	1.8	8	4	6	3	5	4	6	6	2	4
10	2.2	8	7	6	10	5	4	7	5	4	9
11	2.2	5	4	4	7	3	8	4	6	8	7
12	1.6	7	8	2	3	2	9	6	3	6	4
13	3.6	3	5	5	5	5	7	4	6	7	5
14	3.4	8	7	4	6	7	8	9	2	6	5
15	3.2	8	7	3	5	5	6	6	3	5	5
16	2.8	8	6	5	8	6	8	6	4	6	6

# COMMUNICATIONS

17	2.8	8	5	6	5	9	5	10	4	9	3
18	2	9	5	3	5	6	6	9	4	3	5
19	2	7	7	6	5	6	6	7	5	6	5
20	1.6	7	6	7	4	5	4	7	5	4	5
21	2.6	4	5	6	5	4	5	5	4	4	4
22	4.4	6	10	3	1	7	9	6	1	6	1
23	1.6	6	3	4	5	4	5	5	8	3	4
24	2.6	5	5	5	3	6	7	6	4	4	1
25	1.8	7	6	7	6	6	4	8	3	6	6
26	2.8	3	7	4	3	6	7	4	5	6	3
27	2.8	5	6	4	5	5	7	4	5	7	4
28	2	7	6	5	8	4	5	7	4	6	7
29	3.4	6	4	5	6	4	8	4	6	6	7
30	3.2	3	8	3	2	6	9	5	4	8	3
31	2.2	5	4	6	3	7	8	7	5	6	2
32	2.4	9	5	8	6	6	5	7	5	2	7
33	2.8	8	4	8	9	5	3	7	6	3	8
34	2.4	5	5	4	7	4	8	5	5	6	6
35	3.8	5	5	7	10	2	3	4	6	5	8
36	3.2	6	5	8	6	6	6	7	4	8	5
37	2.4	5	6	4	3	5	10	5	7	6	4
38	3.2	7	3	6	10	7	6	7	5	5	7
39	4.6	5	4	4	7	3	7	5	7	6	6
40	2.6	7	4	4	4	5	6	6	6	5	6
41	1.4	6	6	8	4	6	7	8	3	8	3
42	2.6	5	7	6	5	4	7	4	4	6	4
43	3.4	6	6	8	5	6	3	7	5	4	5
44	3	9	5	7	5	6	4	8	2	6	4
45	2.6	5	5	5	4	5	5	7	3	5	2
46	2.4	7	3	5	7	6	7	7	7	6	6
47	3.4	9	7	5	5	5	5	9	3	5	5
48	2.4	8	3	7	5	8	6	9	6	5	4
49	3	6	6	7	4	7	5	7	4	7	4
50	2.2	8	6	5	5	6	6	8	4	6	3
51	2.8	7	6	6	5	7	5	7	4	5	5
52	2.4	5	7	3	5	4	8	4	4	9	4
53	2.8	5	5	5	4	7	6	7	6	6	4
54	1.6	5	5	5	1	4	8	6	8	7	3
55	2.6	9	5	5	6	5	5	7	5	5	6
56	3.2	5	6	6	2	7	6	6	3	5	3
57	2.4	5	5	4	6	4	5	5	6	6	5
58	2.4	8	4	6	5	6	4	8	5	5	4
59	3.4	5	7	7	6	8	7	6	4	6	5
60	3	7	3	3	4	8	8	8	6	6	4
61	2	4	7	6	5	7	6	7	4	7	4
62	2.6	3	6	4	1	4	8	4	5	7	2
63	2.6	4	7	6	3	6	5	4	4	5	3
64	3.4	5	7	6	3	6	5	6	3	5	4

65	3.6	5	8	5	3	6	7	5	3	8	3
66	1.8	9	6	5	3	5	7	7	5	9	4
67	2.6	5	5	7	4	5	6	4	5	4	4
68	2	5	7	4	5	5	8	6	2	8	4
69	3	6	8	7	5	6	5	6	2	8	3
70	1.8	6	5	5	3	7	7	8	5	9	4
71	2.2	8	4	6	6	6	4	8	7	6	6
72	1.4	6	3	5	2	7	6	7	7	5	3
73	2.8	8	7	4	7	5	6	6	4	6	7
74	2.6	5	5	5	7	5	5	6	6	4	6
75	2.4	6	4	7	5	4	6	6	5	5	5
<b>r</b>		<b>-0.1127</b>	<b>0.1531</b>	<b>0.0069</b>	<b>0.1925</b>	<b>0.1018</b>	<b>0.0252</b>	<b>-0.1443</b>	<b>-0.2234</b>	<b>-0.0202</b>	<b>0.0970</b>

#### 4. Conclusions

The preliminary analysis revealed that much the same EPC ratings were provided by the five raters (Table 2). The mean for all the native speaker evaluation was 2.59 and there was a standard deviation of 0.73. The sixteen primary factors and five global factors of the 16pf questionnaire were correlated with the total pronunciation ratings (0.1850 on the  $p < 0.05$  probability level).

The review of the data revealed that most of the above-mentioned personality factors do not significantly correlate with the English phonic competence of the subjects at the 0.05 level (Table 3). Overall, the correlation between EPC assessment scores and the personality factors is rather weak. The results show that only two of the factors (I - Sensitivity; Q3 - Perfectionism) proved relevant for the differences in foreign language pronunciation rating, two factors (L - Vigilance; TM - Tough-Mindedness) showed a statistically relevant inverse proportion to EPC. The other factors did not reach the significance level (Table 3).

These preliminary results are generally echoing the statistical findings in [3] and [4]. The hypothesis tested in this study claiming that "There is no relationship between the degree of extraversion and L2 pronunciation quality" was thus confirmed. None of the primary factors contributing to the global factor EX - Extraversion (A - Warmth; F - Liveliness; H - Social Boldness; N - Privatness; Q2 - Self-Reliance) indicated positive or negative correlation.

The study assessed the relation between the overall degree of the perceived foreign accent in non-natives' English speech and the personal extralingual factors which were supposed to affect L2 pronunciation with the primary focus on extraversion. The empirical data clearly indicate that the L2 acquisition is an extremely complex process and no single psychological characteristic of the learner can account for success of the learning process. The L2 phonic competence is a highly complex phenomenon. Namely, it is not always possible to detect a clear correlation between the observed level of the phonic performance of a foreign language learner and any of the factors usually considered the crucial for foreign accent reduction. Thus, it is not always possible to isolate those variables

which are considered most important. The mutual influence of a number of factors appears to be so complex that the influence of each and every one of them cannot be singled out and analysed independently, without taking all the others into consideration.

It remains to be seen whether this result will be confirmed and what other more specific insights will be gained during the further course of the experiment. Therefore, no certain generalisations can be made at this point. Like any other piece of research, this study has certain limitations which should be taken into account in interpreting and generalising the results. All in all, it can be concluded that the present study shows that the analysed personality factors may not enhance the level of L2 pronunciation. While an extensive quantity of data exists, it has not yet been analysed in great detail. To provide further insight into the issue of personality traits and the L2 oral performance, an indepth longitudinal analysis with repeated measurements is needed. The second hypothesis, that the effect of extraversion is stable over time, was not analysed in this study. Given the fact that extraversion is considered to be a stable personality trait, we are going to verify its effects on L2 pronunciation over time. The students' progress was traced over a period of ten months and the effect of extraversion on L2 pronunciation does not probably remain constant.

The abundance of data created by such an extensive experiment requires a large effort in evaluating and analysing the many different types of results, and it is also necessary to relate them to each other. As it was postulated before, the selected personality scale and linguistic variables have been highly validated by previous research. Despite the fact that the studies looking at the relationship between extraversion and L2 speech production are rather inconsistent in their findings we hope to devise a well balanced design of our main study based on this preliminary research. The complete study adopts both a cross-sectional and longitudinal research design. A more complex research design would require more advanced statistical techniques, such as multivariate and regression analyses. Longitudinal research is needed to determine more precisely at what point in L2 learning, if any, the extraversion factor has an effect on the pronunciation of L2.

The results found in this study could prove to be of interest for language teaching methodology as it should be the goal of L2 teachers to find the most efficient methodology for L2 (not only pronunciation) learning that would take into consideration the individual differences between students, thus making the acquisition of L2 a more effective, enjoyable and less frustrating experience.

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