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# Personality and L2 use

## The advantage of being openminded and self-confident in an immigration context

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Researchers working on the effects of study abroad are always baffled by the huge individual differences in the development of a target language (TL) among students – who could be considered as temporary immigrants (Kinginger 2011; Regan et al. 2009). Researchers often speculate that these differences are linked to socialization issues, such as the amount of authentic TL interactions that students engage in. What research designs usually lack are the unique psychological characteristics that could predict the frequency with which L2 users' engage in L2 interactions. The present study investigates this question by looking at the link between personality traits and frequency of use of English L2 as well as self-perceived proficiency in English L2 by 102 adult Polish immigrants living in Ireland and the UK. Participants filled out a Polish version of personality questionnaires (OCEAN and TEIQ) and a sociobiographical questionnaire. Statistical analyses revealed that length of stay was positively correlated with English L2 use and self-perceived proficiency in that language. Linear regression analyses revealed that Openness and Self-esteem were significant predictors of frequency of use of English L2. Openness was the best predictor of self-perceived English L2 proficiency. In sum, our results suggest that progress in the L2 depends not just on the immersion in the L2 but also on the L2 user's basic inclination to seek out social interactions in the L2.

### Introduction

Some people are talkative, loud, enthusiastic, fearless, enjoy being part of a large group and telling jokes, while others, on the contrary, tend to avoid speaking if they can, keep their emotions under control, would not volunteer to tell jokes in public, speak in a quiet voice and typically prefer quiet places to talk.

Psychologists who focus on these individual differences are generally not interested in the participants' linguistic profile, or the language in which they typically interact. The default position of personality psychologists seems to be that participants are largely monolingual and monocultural, and that the presence of other languages can be safely ignored. Pavlenko (2005) notes that linguistics, psychology, and anthropology "espouse a 'monolingual' view of language (...) that is spoken by the 'idealised' monolingual native speakers" (p. 3). The obvious suggestion is that an individual's communicative behaviour will be more or less similar when that person uses a native or a foreign language. Any multilingual knows that this is not the case, and it has been empirically verified over the years (cf. Dewaele 2010).

The current lack of interdisciplinary work between personality psychology and applied linguistics is striking. According to Segalowitz (2001), the relationship between applied linguistics and psychology was close 40 years ago but the disciplines have drifted apart (p. 4). He bases this assertion on the fact that "one finds little bibliographical overlap in a great number of writing" (p. 4). He identifies three reasons why the initial efforts at collaboration were inherently flawed: "divergent criteria for choosing among competing theories, different ideas about what was to be explained, and different approaches to questions about biology and environment" (p. 3).

The limited interest of personality psychologists in the linguistic profiles of their participants is matched by the applied linguists' interest in their learners' personality profiles. The most popular "psychological" variables in Second Language Acquisition (SLA) research are not personality traits but attitudes and motivation (Dörnyei 2009). Although applied linguists dutifully refer to the – relatively limited – research on the effects of personality traits on second language acquisition and production (Dörnyei 2009), they are typically cast in a supporting role. Moreover, applied linguists rarely include more than one personality trait in their research design, and when they do, they often tend to have relatively unsophisticated and unrealistic expectations of its effects (Dewaele 2009). Among the most active interdisciplinary psychologists/applied linguists are the Canadian researchers Peter MacIntyre, Richard Clément and Kimberley Noels who collaborated with Zoltan Dörnyei and proposed the pyramid model of willingness to communicate (MacIntyre et al. 1998). Personality is at the basis of the pyramid, together with intergroup climate. In other words, the authors acknowledge that an individual's personality profile will determine that individual's willingness to communicate, in the native or in the foreign language. However, the authors did not elaborate what dimensions of personality might be linked to willingness to communicate.

To the best of our knowledge, there are no studies that examine the influence of personality traits on self-perceived L2 proficiency or L2 use among immigrant language learners. The closest match is SLA research on Study Abroad that included psychological variables. Yashima et al. (2004) investigated frequency and amount of L2 communication by Japanese students who participated in a study-abroad program in the United States. They found that students with lower levels of communication anxiety and higher levels of self-confidence in the L2 scored higher on Willingness to Communicate (WTC) in the L2. Students with higher levels of International Posture also reported more frequent use of the L2 with their host families. Satisfaction in the sojourn experience and satisfaction in friendship with hosts also correlated positively with frequency of L2 communication with members of the host family. This boosted students' motivation and led them to put in more effort in learning English, which led to a further improvement in communicative skills and self-confidence (p. 140).

Other researchers have pointed out that several independent factors can interact with foreign language experience and use. Trofimovich (2011) observes that these relationships "are likely recursive and could therefore be described in terms of reciprocal causation, meaning that potential causal links are running in both directions" (p. 149). He lists variables related to training, input, cognitive processing and social context of learning (p. 147). Trofimovich et al. (2009) pointed out that L2 learners of English who sought more opportunities for contact with English outside the school might have been those who benefitted the most from the rich comprehension-based practice they received through instruction. That could suggest that one's personality might influence the very process of L2 acquisition via frequent contacts with the native speakers and exposure to that language. One challenge for L2 researchers, according to Trofimovich (2011) is to conceptualize the influence of these and potentially many other variables within coherent and testable theoretical frameworks which link language input and language experience to L2 learning outcomes.

Individual variation in L2 learning outcomes among students who have spent some time abroad has always struck researchers (Coleman 1998; Regan et al. 2009). Some have even wondered whether the fact of having been abroad may have accentuated differences: "As in all second language learning, there is great variation in student performance with a suggestion that individual differences may be yet more pronounced for those who have been abroad" (Freed 1995: 27). Kinginger (2011) puts it even more bluntly: "study abroad intensifies individual differences in achievement: Certain students thrive while others founder" (p. 58).

Some researchers have tried to link the huge individual variation in outcome with the wider social context of the students abroad and, more specifically,

their L2 socialisation (Kinginger 2008). Kinginger (2009) is particularly critical of researchers who consider the individual differences “in terms of explanatory schemes where the learner’s identity is reduced to an array of individual factors such as attitude, motivation, or personality. Differential success is neatly categorized and the story ends, often with the unsuccessful learner assigned motivational deficit, poor attitude, or inappropriate learning strategies” (p. 31). Kinginger argues that it is crucial to consider the learner’s unique dispositions towards language learning, the nature of the study abroad experiences in order to understand why some prevail while others make little progress (p. 31).

We fully agree that case studies can offer valuable insights into the ways unique individuals adapt to specific sociocultural contexts. However, as Dörnyei (2007) points out, while the advantage of qualitative methodologies is the richness of the descriptions of dynamic processes in participants’ own terms and very appropriate to explore uncharted areas, such an approach also suffers weaknesses, namely, the small sample size, the idiosyncratic focus and the lack of generalisability (p. 39). The quantitative approach may have a rather limited general exploratory capacity because it cannot easily uncover reasons for particular patterns or the dynamics underlying a situation or phenomenon (p. 35), but “it is systematic, rigorous, focused, and tightly controlled, involving precise measurement and producing reliable and replicable data that is generalisable to other contexts” (p. 34).

We argue that quantitative research into individual differences may not explain the full picture of any individual, but we feel that in identifying the psychological variables (which are universal in nature) linked to the differences, we can shed a unique light on the predispositions of certain learners to engage in particular social activities. Since psychological traits determine an individual’s social behaviour, we can assume that individuals with their complex and unique life histories, within the infinitely complex immigrant context, will nevertheless display some common patterns of behaviour which may be more or less conducive of “success” in SLA. We are thus looking for what is invariant, and generalisable.

The informants of the present study are described as immigrant learners as their length of stay in the foreign country varied from a few months to 19 years. Some of them were living in the L2 community for a long amount of time and presumably were fully integrated in that community. Therefore, they are very different from the Study Abroad learners, who are participating in an organized study abroad or work placement programme over a short period of time (from a couple of weeks to 1 year) resulting in the learners’ return to the home educational context. However, because the issues we are addressing in this study have not, to the best of our knowledge, been previously investigated in relation to immigrant language learners, we will present some studies that focused on individual differences in the context of Study Abroad. We acknowledge that some differences

may exist between immigrant learners/users and Study Abroad learners/users (the main one being the more permanent character and the length of stay of the immigrants) but we also suspect that many findings of the Study Abroad research are applicable to our immigrant learners/users.

### Study abroad/immigrant context

Research suggests that study abroad generally has a positive influence on various aspects of learners' TL (Freed 1995). Freed (1995) compared American instructed learners of French who did not go abroad to a study abroad group. The results showed that the study abroad learners were perceived to speak significantly more, to have an increased speech rate and longer streams of continuous speech than the instructed learners. The study abroad learners were generally more at ease when speaking in the L2 when compared to the learners who had not been abroad (Regan et al. 2009: 34). The study abroad learners also showed enhanced communicative ability, which was related to increased fluency, as manifested by increased rate of speech and more repair by the study abroad learners (Regan et al. 2009: 36).

A successful outcome of a study abroad has been linked to a wide range of factors: type and intensity of the communicative interaction which the learner engages in while abroad, some sociopersonal characteristics such as learner's motivation and gender, as well as more global issues such as residence type, length of stay and *raison d'être* while abroad (Regan et al. 2009: 39).

Pellegrino (1998) investigated American study abroad learners in Russia focusing on the learners' expectations of the type of contact which best facilitates their acquisition. Learners reported on the importance of the informal contact with the target language. Kinginger (2008) also found that her "successful" students were typically the ones who had been lucky enough to stay with a welcoming host family who engaged them in daily conversations, and the ones who sought out native speakers of French and avoided their English-speaking colleagues. Those who developed their own "French" social networks made significant linguistic progress. Some participants also reported that their stay in France had altered their personality: "Ailis claimed that she had learned mainly about herself. Above all, she had discovered her taste for travel, but she also stated that she had learned to value her friends and family at home and that she had become more patient and tolerant of diversity" (Kinger 2008: 263).

Kinger (2011) also points out that language educators have an important part to play in order to promote the engagement of students in language learning abroad. Educators can promote "educationally relevant engagement in the

practices of host communities”, provide “guidance in the interpretation of these practices”, and prepare students “to take specific advantage of language learning opportunities” (p. 67).

## Personality and SLA

Personality is “the more or less stable and enduring organization of a person’s character, temperament, intellect and physique which determines his unique adjustment to the environment” (Child 1986:239). It is the organized system of behaviours, attitudes, and values that characterizes a given individual and accounts for his particular manner of functioning in the environment (Strelau 2000). Personality is thought to affect language learning directly or indirectly, i.e. by influencing the choice of language learning strategies or classroom participation (Bielska 2006:14). Ehrman (1996:101) suggests that there is a clear relationship between personality and SLA as personality determines what people feel comfortable with. As a result, people tend to choose and consequently do what they feel comfortable with and get better at the given skills. This does not preclude the development of skills associated with the opposite pole of a given preference scale. It simply suggests that without conscious focusing, these skills may not be given enough natural practice (Bielska 2006:14). From among numerous personality dimensions investigated in general psychology, we will focus the literature review on the dimensions which are *prime facie* linked to communication: Extraversion, Openness, Emotional Intelligence and Empathy (Dewaele 2012). The former two are higher-order personality traits, the latter two are lower-order personality traits.

### Higher and lower-order personality traits

In psychology, ‘trait theory’ is a major approach to the study of human personality. Trait theorists are primarily interested in the measurement of ‘traits’, which can be defined as habitual patterns of behaviour, thought, and emotion (Kassin 2003). According to this perspective, traits are relatively stable over time, differ among individuals (e.g. some people are outgoing whereas others are shy), and influence behaviour. The statistical technique of factor analysis has demonstrated that particular clusters of traits reliably correlate together. Many psychologists currently believe that five factors are sufficient (Costa and McCrae 1992a). Among these five factors, later called ‘higher-order personality traits’ or ‘The Big Five’, are: Extraversion, Openness, Agreeableness, Conscientiousness, and Neuroticism. Each of the ‘Big Five’ personality traits has its counterpart presented on a linear scale.

**Table 1.** The Five Factor Personality Model adapted from *NEO Personality Inventory-Revised* (Costa and McCrae 1992b: 120)

HIGH SCORER	GLOBAL DOMAINS	LOW SCORER
Worrying, nervous, emotional, insecure, inadequate, hypochondriacal	<b>Neuroticism (N)</b> Assesses adjustment versus emotional instability. Identifies individuals prone to psychological distress, unrealistic ideas.	Calm, relaxed, unemotional, hardy, secure, self-satisfied
Sociable, active, talkative, person-oriented, optimistic, fun-loving, affectionate	<b>Extraversion (E)</b> Assesses quantity and intensity of interpersonal interaction; activity level; need for stimulation; and capacity for joy.	Reserved, sober, aloof, unexuberant, task-oriented, retiring, quiet
Curious, broad interests, creative, original, imaginative, untraditional	<b>Openness (O)</b> Assesses proactive seeking and appreciation of experience for its own sake, toleration for and exploration of the unfamiliar.	Conventional, down-to-earth, narrow interests, inartistic, unanalytical
Soft-hearted, good-natured, trusting, helpful, forgiving, gullible, straightforward	<b>Agreeableness (A)</b> Assesses the quality of one's interpersonal orientation along a continuum from compassion to antagonism in thoughts, feelings, and actions.	Cynical, rude, suspicious, uncooperative, vengeful, ruthless, irritable, manipulative
Organized, reliable, hard-working, self-disciplined, punctual, scrupulous, neat, ambitious, persevering	<b>Conscientiousness (C)</b> Assesses the individual's degree of organization, persistence, and motivation in goal-directed behavior.	Aimless, unreliable, lazy, careless, lax, negligent, weak-willed, hedonistic

The reason for pairing these factors is that a high score for one of the pair, e.g. Extraversion, entails a low score for its counterpart, in this case Introversion. Scores on the various dimensions follow a normal (Gaussian) distribution, meaning that a majority of people are situated between the opposite poles, and are called “ambiverts” on the Extraversion-Introversion dimension. Table 1 provides an overview of “The Big Five” factors. It describes the general characteristics of the traits as well as the characteristics of its high and low scorers. On the basis of these characteristics, the framework for measuring the “The Big Five” was constructed.

Personality traits are hierarchically organized with more specific or lower-order traits combining to form more generalized higher-order traits. At the same time, there are good reasons to consider that both higher- and lower-order levels of the hierarchy are important for understanding personality (Livesley et al. 1998) that shapes various aspects of our life including SLA or affective socialization processes.

Trait emotional intelligence (EI) (or trait emotional self-efficacy) is closely related to the main personality traits and therefore this is termed a lower-order

personality trait (Petrides et al. 2007). The construct of trait EI posits the existence of actual or perceived differences in the extent to which people attend to, process and utilize affect-laden information (cf. Davey 2005:306). Trait EI has received much attention in the psychological literature and beyond, generating intense demand for application in educational, organizational and clinical settings (cf. Petrides et al. 2007). Trait EI concerns emotion-related dispositions and self-perceptions measured via self-report. Dewaele et al. (2008) found that trait EI was inversely related to communicative anxiety in the various languages of multilinguals.

### The 'Big Five' and SLA

Dewaele (2012) observed that relatively few significant findings have been published linking personality traits and measures of SLA. One possibility is that research has been carried out but that a lack of significant effects may have discouraged researchers to publish their findings. The research that was published typically reports small effects for personality traits on aspects of SLA (Dewaele 2009, 2012). One possible explanation is that the learner's psychological profile may play a role in their SLA, but only in interaction with lower order psychological variables and with contextual factors such as language learning history, current linguistic practices, language profile, educational and sociopolitical context (Dewaele 2009).

The personality trait that has been most often researched in SLA is Extraversion/Introversion. Two hypotheses have been investigated in this regard, based on the distinction between the acquisition of basic interpersonal communication skills (BICS) and the development of cognitive academic language proficiency (CALP) (Bielska 2006; Ellis 1994). The first hypothesis states that introvert learners will do better at developing cognitive academic language proficiency (CALP). The rationale for this hypothesis comes from studies which show that introverts typically enjoy more academic success and are more independent of momentary outward situation since they are driven by inner stimuli. Consequently, introverts tend to go more deeply into their work and, if motivated, can sustain their interest and work effectively for long periods of time (Myers and Myers 1995). They typically perform slightly better on L2 vocabulary tests (Carrell et al. 1996), specifically when the learning happens in a familiar situation, while extraverts seem to perform better when the learning situation has a moderate degree of novelty (MacIntyre et al. 2007). The second hypothesis states that extravert learners, due to their sociability, will be more willing to engage in group work, more inclined to talk more, likely to seek out the advantage of practice opportunities both inside and outside the classroom and, consequently, will be better than introverted

learners at acquiring BICS (Bielska 2006). Some studies have indeed reported a positive relationship between measures of Extraversion and learning and using of oral English by ESL students. Among them, Rossier (1975) hypothesized that the outgoing extraverted students, thanks to extra practice they get outside the language classroom, would become proficient speakers of English more rapidly than their introverted classmates. No relationship was found between Extraversion and overall oral proficiency, but the statistical analysis of the data revealed a highly significant positive correlation between Extraversion and oral fluency.

Naiman et al. (1978) tested the same hypothesis on the superiority of the extravert learners. The authors checked whether “good language learners”, i.e. Canadian high school students learning French as a L2 who scored highest on two written tests, tended to be more extravert. When a positive correlation failed to emerge between extraversion scores and test results, the authors questioned the construct validity of the Eysenck Personality Inventory (EPI), which was used to calculate extraversion scores (Naiman et al. 1978:67). The authors seemed unaware that their focus on test scores might have explained the unexpected result (Dewaele and Furnham 1999). Had they used not just test scores but also more sophisticated linguistic variables, covering not only written language but also oral language, they might have found that the lack of expected relationships was unrelated to the construct validity of the EPI. Dewaele and Furnham (2000) tested this specific hypothesis and found significant positive correlations between Extraversion scores and indicators of fluency (but not accuracy) in advanced French interlanguage. They suggested that extraverts’ better stress-resistance and better short-term memory allow them to maintain automaticity of speech production when they are under some sort of arousal/stress while introverts slide back to controlled processing which overloads their working memory. This short-term memory advantage does not make the extraverts “better” learners in terms of errors but better “performers” in terms of fluency. Wakamoto (2009) found that his more extraverted Japanese learners of English tended to prefer social strategies, like cooperation with others or asking for clarification compared to the more introverted students who were more likely to try to overcome obstacles without outside help.

The hypothesis that extraverts would excel in BICS has been rejected in recent research on the psychological profile of the “good language learner”. Ehrman (2008) selected a sample of 62 language learners out of 3145, who obtained top scores on an oral interview test (supposedly testing BICS). She used the Myers-Briggs Type Indicator to establish personality types (four scales: extraversion-introversion, sensing-intuition, thinking-feeling, judging-perceiving; combining into 16 possible four-letter types) of this “true elite of good language learners” (p. 61). She used crosstabs analyses to determine which personality type was most

frequent among her participants. Only one personality type was significantly over-represented in this elite group, namely INTJ types (introverted-intuitive-thinking-judging) (p. 64). In other words: “the best language learners tend to have introverted personalities, a finding which runs contrary to much of the literature, and, even, to pedagogical intuition. The best learners are intuitive and they are logical and precise thinkers who are able to exercise judgment” (p. 70).

MacIntyre and Charos (1996) have included various personality traits as predictors of French L2 learning and communication. They found a link between Intellect and self-perceived competence, with Canadian L2 learners who considered themselves more intellectual and sophisticated also feeling more proficient in the L2 (p. 18). Introversiveness (but not Emotional Stability) was found to be linked to language anxiety (p. 19). Agreeableness was linked to willingness to communicate: “People who are more pleasant and agreeable themselves would be more likely to have pleasant contacts with target language group members, and this appears to be reflected in their willingness to communicate” (p. 19). Emotional Stability was found to be linked to integrativeness, with participants scoring lower on Emotional Stability displaying less willingness to interact with members of the L2 community (p. 19). The last personality trait to be investigated was conscientiousness, which was found to be linked to the learning situation: Thus students who are more conscientious and well organized, as compared to less well organized ones, may possess an advantage in study habits that leads to a more positive attitude toward the language course (p. 20). The authors conclude that: “Global personality traits are implicated indirectly, via their influence on language-related attitudes, language anxiety, perceived L2 competence, motivation for language learning, and willingness to communicate” (MacIntyre and Charos 1996:21).

### Trait Emotional Intelligence, Empathy and SLA

Dewaele et al. (2008) investigated the link between levels of trait EI and levels of communicative anxiety in the L1, L2, L3 and L4 of adult multilinguals. A significant negative relationship was found between communicative anxiety in the different languages of the participants and their scores on trait EI. The authors speculated that emotionally intelligent individuals are better able to judge the emotional state of their interlocutor which lowers their communicative anxiety because they feel more confident about their ability to communicate effectively. Further research on the same population showed that trait EI is not linked to self-perceived competence in various languages, to language choice to express emotions, nor to multilinguals' perceptions of their various languages (Dewaele 2010).

Empathy has been linked to authenticity of pronunciation (Guiora et al. 1972). Participants who scored high on imitation of a native speaker's pronunciation of a script containing predetermined points of pronunciation difficulty tended to score higher on Empathy. Recent research using fMRI imaging has shown that imitation aptitude for an unknown language is mostly predicted by working memory, whereas imitation aptitude in advanced L2 is best predicted by empathy and phonetic coding ability (Rota and Reiterer 2009).

## Research questions and hypotheses

The present study, which forms part of a larger-scale investigation into personality and the perception and expression of emotions in L1 and L2 (Ożańska-Ponikwia 2011), explores the links between both higher order personality traits and lower order personality traits like trait emotional intelligence (EI) and self-reported L2 use and L2 self-perceived proficiency among L2 users living abroad. We will address the following research questions:

1. Do L2 users who have been abroad for a longer time use their L2 more and feel more proficient in their L2? We hypothesise that length of stay will be positively correlated with both frequency of use and self-perceived proficiency.
2. What is the effect of personality on use of the L2 while abroad? We expect that people who score high on Extraversion, Openness, Self-esteem, Well-being, Stress management, Adaptability, and trait EI will engage in communicative interactions in their L2 more frequently.
3. What is the effect of personality on self-perceived proficiency in the L2 while abroad? We speculate that the factors which affect frequency of use of the L2 will indirectly be linked to self-perceived proficiency.

## Method

### Participants

The present study is based on data collected from 102 Polish informants (72 females, 30 males). Their age varied from 17 to 58 years with two thirds of the sample being in their twenties, 23% being in their thirties, and the remaining 10% being in their forties or fifties. More than half of the informants held a BA, 8% had an MA, 8% had a Secondary education degree, and more than one quarter

reported receiving a vocational education. Half of the participants had lived in an English Speaking Country (ESC), either Ireland or the United Kingdom, for up to one year, one quarter reported living in an ESC from between 1 and 2 years, and the remaining quarter had lived in an ESC between 2 years and 19.5 years.

The level of self-perceived L2 proficiency varied from minimal proficiency to maximal proficiency (Mean = 4.1, SD = 0.9) with nearly half of all participants rating themselves as fully proficient, 30% as upper-intermediate, 17% as intermediate, 4% as pre-intermediate and one as a beginner.

Every one of our participants is a L2 user, i.e. “someone who knows more than one language, whether spoken, written, or signed, regardless of the number of languages known, the level of proficiency, how they were learnt, and whether knowledge is productive or receptive” (Bassetti and Cook 2011: 146).

## Instruments

The participants filled out the following questionnaires in Polish:

1. Personal background questionnaire, measuring such variables as age, gender, self-perceived L2 proficiency, length of stay in the UK or Ireland, educational level, and length of L2 instruction.
2. The ‘L2 use’ scale was devised in order to measure the frequency of L2 use by bilinguals and L2 users in different, everyday situations. It consisted of nine statements requiring participants to choose between the following responses: 1 – Strongly disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree. The items were: “I use English at work”; “I use English at home”; “I use English at school”; “I use English when I talk to my friends”; “I use English in everyday situations”; “I use English for praising”; “I use English to maintain discipline”; “I use English when I talk to my partner”; “I use English when I talk to my children”. The ‘L2 use’ value represents the sum of the responses to the nine items.
3. The ‘L2 proficiency’ scale asked participants to judge their level of proficiency in English on a 5-point Likert scale (ranging from minimal to maximal proficiency).
4. ‘OCEAN’ questionnaire (50 items) which is a short version of a ‘Big Five’ personality test. A Cronbach’s  $\alpha$  test revealed high levels of internal consistency for the various dimensions: Extraversion ( $\alpha = 0.87$ ), Agreeableness ( $\alpha = 0.82$ ), Conscientiousness ( $\alpha = 0.79$ ), Emotional stability ( $\alpha = 0.86$ ) and Intellect ( $\alpha = 0.84$ ). The Cronbach’s  $\alpha$  for all the measured traits was 0.84.

5. Trait Emotional Intelligence Questionnaire (Petrides and Furnham 2003). The TEIQue is a self-report inventory, which comprehensively covers the sampling domain of EI. It consists of 153 items, measuring 15 facets, four factors, and global trait EI. It integrates and extends EI-related ideas in a general framework that incorporates 15 specific facets: Adaptability ( $\alpha = 0.78$ ), Assertiveness ( $\alpha = 0.83$ ), Emotion perception ( $\alpha = 0.81$ ), Emotion expression ( $\alpha = 0.89$ ), Emotion management ( $\alpha = 0.61$ ), Emotion regulation ( $\alpha = 0.67$ ), Impulsiveness ( $\alpha = 0.61$ ), Relationships ( $\alpha = 0.66$ ), Self-esteem ( $\alpha = 0.91$ ), Self-motivation ( $\alpha = 0.67$ ), Social awareness ( $\alpha = 0.80$ ), Stress management ( $\alpha = 0.78$ ), trait Empathy ( $\alpha = 0.71$ ), trait Happiness ( $\alpha = 0.92$ ), trait Optimism ( $\alpha = 0.86$ ). Apart from assessing all of the above-mentioned facets through 15 subscales, it also provides scores on global trait EI ( $\alpha = 0.89$ ) and four factors of broader relevance: Well-being ( $\alpha = 0.89$ ), Self-control ( $\alpha = 0.68$ ), Emotionality ( $\alpha = 0.76$ ), and Sociability ( $\alpha = 0.74$ ). Apart from these four factors of broader relevance, TEIQue measures fifteen specific facets that are described in Table 2 below where descriptions of the high scorers of each facet are presented (Petrides and Furnham 2001, 2003). EI facets do not reflect cognitive abilities (e.g., IQ), but rather self-perceived abilities and behavioural dispositions. In the case of the OCEAN and TEIQue questionnaires, the official Polish translations and adaptations were used (Furnham et al. 2005; Wytzkowska and Petrides 2007).

**Table 2.** The EI sampling domain adapted from the official TEIQue website (2001–2009)

Facets	High scorers perceive themselves as...
Adaptability	flexible and willing to adapt to new conditions
Assertiveness	forthright, frank and willing to stand up for their rights
Emotion perception	clear about their own and other people's feelings
Emotion expression	capable of communicating their feelings to others
Emotion management (others)	capable of influencing other people's feelings
Emotion regulation	capable of controlling their emotions
Impulsiveness (low)	reflective and less likely to give in to their urges
Relationships	capable of having fulfilling personal relationships
Self-esteem	successful and self-confident
Self-motivation	driven and unlikely to give up in the face of adversity
Social awareness	accomplished networkers with excellent social skills
Stress management	capable of withstanding pressure and regulating stress
Trait empathy	capable of taking someone else's perspective
Trait happiness	cheerful and satisfied with their lives
Trait optimism	confident and likely to "look on the bright side" of life

## Results

### Length of stay abroad and self-perceived L2 proficiency

It was hypothesized that length of immersion in the L2 language and culture would have an influence on frequency of L2 use and self-perceived L2 proficiency. Participants who have spent a longer time in the UK or Ireland are more likely to have socialized in the L2, with more frequent use of the L2 as a consequence, leading to higher levels of self-perceived L2 proficiency.

A Pearson correlation analysis confirmed that length of stay is positively linked with frequency of L2 use ( $r = 0.22, p < 0.035$ ) and self-perceived L2 speaking proficiency ( $r = 0.23, p < 0.05$ ). In other words, the longer participants had stayed in the UK or Ireland, the more frequently they used their L2 English and the more proficient they felt in it.

### Higher order personality traits and self-reported L2 use

It was hypothesized that the personality traits of Extraversion and Openness would be linked to self-reported L2 use. Therefore, scores on the five dimensions of Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism (OCEAN) were correlated with 'L2 use'. The results are presented and discussed below (Table 3).

Participants who scored higher on Extraversion trait reported significantly more frequent L2 use. This might be linked to the fact that extraverts tend to participate actively in social interactions in both their L1 and L2. The strongest positive correlation emerged between Openness and self-reported L2 use. More open participants are more likely to seek opportunities for new cultural and

**Table 3.** Personality traits and 'L2 use' (Pearson's  $r$ )

	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness
L2 use	0.212*	0.200	0.119	0.002	0.273**

\*  $p < 0.05$ , \*\*  $p < 0.01$

**Table 4.** Results of linear stepwise regression examining what higher-order personality traits predict L2 use

	R <sup>2</sup>	F	$p$
Openness	0.074	7.15	0.009

educational experiences resulting in more frequent use of the L2 in a variety of social interactions.

A linear stepwise regression including Extraversion and Openness indicated that Openness predicted 7.4% of the variance in self-reported L2 use. Extraversion was excluded (see Table 4).

### Emotional Intelligence and self-reported L2 use

The 'L2 use' factor, measuring the frequency of L2 use in various social situations like talking to a partner or to children, using the L2 for praising, maintaining discipline, or operating in the L2 at work, home, school correlated positively with the five specific EI traits, namely Self esteem, Stress management, Adaptability, Well-being, and Global EI (Table 5). Participants who scored high on the above-mentioned factors could be described as socially competent, fluent in communicating their emotions and expressing their feelings, adaptable, perceptive and able to handle pressure calmly and effectively. They are good at regulating their emotion and are characterized by flexibility in their approach to work and life, with high levels of willingness to adapt to new environments and conditions. They enjoy novelty and regular change. They could be also presented as individuals who have good listening and communicative skills.

A linear stepwise regression examining what EI traits predict L2 use revealed that only Self-esteem was a significant predictor of self-reported L2 use and accounted for 6.8% of the variance. Stress management, Adaptability, Well-being and Global trait EI were excluded from the regression analysis (see Table 6).

**Table 5.** EI traits and 'L2 use' (Pearson's *r*)

EI traits	L2 use
Self esteem	0.261*
Stress management	0.220*
Adaptability	0.224*
Well-being	0.235*
Global trait EI	0.234*

\*  $p < 0.05$

**Table 6.** Results of linear stepwise regression examining what EI factors predict L2 use

	R <sup>2</sup>	F	<i>p</i>
Self-esteem	0.068	6.51	0.012

## Higher and lower-order personality traits and self-perceived L2 proficiency

We speculated that some higher-order (OCEAN) and lower-order personality traits (EI) are linked to L2 use, and, indirectly, to self-perceived L2 proficiency. All the scores for the various personality dimensions were correlated with self-perceived L2 proficiency. The results are presented in Table 7.

The statistical analysis revealed that self-perceived L2 proficiency correlated positively, and significantly, with only three traits: Agreeableness, Openness and the EI trait of Empathy. High scorers on self-perceived L2 proficiency would thus tend to be more trusting, friendly and cooperative (Agreeableness), more imaginative, creative, and interested in new cultural and educational experiences (Openness), as well as being skilful in conversations and having an ability to put themselves “in somebody else’s shoes” (Empathy).

**Table 7.** OCEAN and EI personality traits and self-perceived L2 proficiency (Pearson’s *r*)

Personality traits	L2 proficiency
Extraversion	0.111
Agreeableness	0.225*
Conscientiousness	0.079
Neuroticism	0.092
Openness	0.242*
Self esteem	-0.041
Emotion expression	0.09
Self-motivation	0.021
Emotion regulation	0.071
Happiness	0.011
Empathy	0.222*
Social awareness	0.031
Impulsivity (low)	0.054
Emotion perception	0.067
Stress management	0.123
Emotion management	0.021
Optimism	0.029
Relationships	0.089
Adaptability	0.121
Assertiveness	-0.033
Wellbeing	0.005
Self control	0.125
Emotionality	0.145
Sociability	0.009
Global trait EI	0.090

\*  $p < 0.05$

**Table 8.** Results of a linear stepwise regression examining what OCEAN and EI factors predict self-reported L2 proficiency

	R <sup>2</sup>	F	<i>p</i>
Openness	0.070	7.33	0.008

The results of the linear stepwise regression examining to what extent Openness, Agreeableness and Empathy predict self-reported L2 proficiency are presented in Table 8. Agreeableness and Empathy were excluded and Openness was the only significant predictor, accounting for 7% of the variance in self-reported L2 proficiency.

## Discussion

Our first hypothesis was confirmed: immigrants who have been abroad for a longer time use the L2 more frequently and feel more proficient in their L2. The finding is not that surprising. As our participants built up their new L2 social networks, they started using their L2 more frequently, which led to the development of their L2. We speculate that after a while immigrants are likely to increase their use of the L2 beyond pure service encounters, for example through their children's social and school activities or their own involvement in community life. Reciprocal causation might also explain the increased use and confidence in the L2, as immigrants may perceive a need to be more extravert, openminded, agreeable and empathic in order to function properly in their new environment. This may in turn increase their proficiency, their self-confidence and their willingness to use the L2.

Our second hypothesis was also confirmed. Various personality traits appear to be linked to L2 use. The correlation of the 'Big Five' personality factors, the EI factors, and the scores on L2 use revealed a complex and interesting picture. A first series of correlation analyses between 'L2 use' and the 'Big Five' personality traits showed that participants of this study who scored high on Extraversion and Openness reported using English L2 more often than participants who scored lower on these personality traits. A linear stepwise regression analysis revealed that Openness was the only significant predictor of L2 use. We thus speculated that participants who are open to new experiences, who are friendly and cooperative in social interactions are more likely to seek opportunities for interaction in L2 English. The fact that Extraversion was excluded as a predictor variable in the stepwise regression analysis was surprising. Indeed, many facets of Extraversion such as gregariousness and talkativeness seemed to predispose this variable to

predict L2 use. These facets seem to reflect a stronger focus on speech production than on reception (the extravert L2 user may be more interested in his/her own voice than that of the interlocutor). Might the intellectual curiosity of the L2 user who scores higher on Openness make this individual a better listener? Is it possible that the wish to know more about the L2 language and culture is a stronger engine of linguistic and cultural development rather than a mere desire to use the L2?

A second series of correlation analyses between 'L2 use' and trait EI showed that some EI components like Self-esteem, Stress management, Adaptability, Well-being, and Global EI are linked to L2 use. However, a linear stepwise regression analysis showed that Self-esteem was the only significant predictor of L2 use. Successful and self-confident L2 users are thus more likely to seek opportunities to communicate in the L2 and to actively engage in authentic L2 interactions.

Our third hypothesis, namely that the factors affecting frequency of use of the L2 are indirectly linked to self-perceived proficiency was partially confirmed. Self-esteem, which was a significant predictor of L2 use, turned out to be unrelated to self-perceived L2 proficiency. Correlation analyses showed positive relationships between Agreeableness, Openness, Empathy and the self-reported level of proficiency in L2 English. However, a linear stepwise regression analysis indicated that Openness was the only significant predictor of L2 proficiency. The reasons for this are probably similar to those mentioned earlier: curiosity in the L2 language and culture has a stronger effect on proficiency than more general talkativeness.

Our findings suggest that Openness and Self-esteem are the personality traits that best predict the use and the development of English L2 by Polish immigrants living in the UK or Ireland. Even though the effect is significant, the effect size is rather small, with personality traits typically predicting around 7% of the variance. Looking at Kinginger's (2008) description of one of her students who made significant progress in French during his stay abroad, Bill, it is striking to recognize some of the characteristics of an open individual with a healthy dose of self-esteem. Before his departure "He described himself as prepared for, and desirous of a significant challenge, a situation where he would be faced with a baseline obligation to struggle with his own language-related problems" (p. 215). His proficiency in French was rather limited. He expressed the wish of "having another perspective" emerging from exposure to other languages (p. 217). He conceived his study abroad as an interpersonal experience, that "would enhance his empathy for strangers and provide cognitive tools and alternative stories nurturing a comparative approach to awareness of culture" (p. 219). He devoted "considerable effort to developing a social circle, and had apparently been welcomed in a variety of settings, beginning with the home" (p. 222). He joined student groups, a religious association, a football team and a computer club (p. 225). In the formal

assessment, Kinginger reports that Bill was one of the students with the highest gain scores, moving from an “elementary level” before departure to an “intermediate level” at the end of his stay (p. 234). His speaking skills and sociolinguistic awareness in French has also improved considerably. We could speculate where the potential causal links might be running in both directions, as Bill’s psychological profile might have provided the trigger to seek social interactions, which were successful and might have further strengthened his desire to interact in French (Dewaele 2012; Trofimovich 2011). At the other end of the Openness scale is Deidre who had not enjoyed her French classes in the US very much but reached an Intermediate level in the formal assessment before departure. She wanted to go to France but saw it as a routine experience appropriate for anyone: “basically, the reason that I kept on pursuing French was because I wanted to go abroad” (p. 237). However, once in France, she complained about feeling inadequate and too slow (p. 236). She wrote at length in her journal of her homesickness and self-imposed social isolation. She positioned herself as “a victimized consumer of goods, services, and even the educational program in which she was enrolled” (p. 238). She argued that “it was worthless to establish links with others only to leave these friends behind in short order” (p. 239). She complained about the rudeness of the French and their lack of respect for women. She noticed very little about French society or norms of social interaction and reported feeling bored (p. 242). During the final month of her stay she claimed that she was socially isolated, using French only in limited service-encounters. Unsurprisingly, her formal assessment after her return to the US showed a very limited gain and no improvement of sociolinguistic competence (p. 252). Kinginger concludes by observing that “the individual differences in language learning achievement abroad are not necessarily attributable only to the events or conditions characterizing the experience itself. They may in fact be deeply rooted in life histories of the people involved and tightly connected to the aspirations that students have been enjoined to hold for themselves” (p. 279). We do not disagree with this conclusion, but would add that the individual differences may not just be rooted in their life histories but also in their genes and subsequent personality profiles.

There are some striking similarities between the study abroad context and our “Polish immigrant context” as all individuals are immersed in a foreign language and culture, using the L2 on everyday basis in both structured and naturalistic settings. There are also some differences between the two contexts. The most obvious one is the length of exposure to the L2. Half of the participants in our study had settled down less than a year before the data collection, the other half had spent between 1 and 19 years in Ireland or the UK. Another difference is the motivation for moving (and staying) abroad. While the students abroad can look forward to the day they return home, our participants were working or studying

in the foreign country with no intention of going back home in the near future. Their command of English had to be high enough to be able to complete their courses, get a job and to function in society. Therefore, it is probable that the motivation to succeed and to function in the new surroundings was higher among our participants than among Kinginger's study abroad students. Since there was no study, to the best of our knowledge, that researched the link between personality traits and L2 use among L2 users living and working in a foreign country, we based our hypotheses on the study abroad literature.

## Conclusion

MacIntyre et al. (1998) put intergroup climate and personality at the basis of the pyramid of L2 users' willingness to communicate. Our study confirms that an immigrant's personality profile is significantly linked to L2 use and self-perceived proficiency in the L2. We claim that a small but significant source of individual differences in the outcome of study-abroad programmes (Kinging 2011), is the immigrant's personality. We referred to the phenomenon of reciprocal causation (Trofimovich 2011), arguing that potential causal links are running in both directions. This seems most obvious in the case of immigrants whose personality makes them more likely to engage in social interactions in the L2. This could, in turn, affect certain dimensions of their personality and boost their proficiency and self-confidence in the L2 (Dewaele 2012).

Participants who score high on Openness and Self-esteem are more likely to seek authentic interaction in the L2, driven by a genuine desire to find out more about the L2 language and culture. One could speculate that these explorers of the unfamiliar, these curious, creative, original, imaginative, self-confident individuals will gradually build a large network of L2 interlocutors, which will speed up their L2 socialisation and contribute to the development of their L2. Openness thus emerges as the most important personality trait underlying the individual differences in L2 development and L2 use among immigrants.

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