Psychological dimensions and foreign language anxiety[1]

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BACKGROUND

Few psychological dimensions have been as intensively researched in SLA as anxiety. As Dörnyei and Ryan (2015) put it, anxiety has been in the limelight of SLA research for several decades. Indeed, learners, teachers and researchers agree that anxiety is a common experience and they have been interested in knowing to what extent anxiety inhibits language learning and language production. This question fitted squarely in the more general research into the internal characteristics of the "good language learner" in the mid 1970s. Naiman, Fröhlich, Stern, and Todesco (1978) looked at 72 Anglo-Canadian high school students learning French as a second language (L2) who scored highest on the Listening Test of French Achievement and an Imitation Test and tried to determine whether these "good language learners" had a unique psychological profile, similar motivations, attitudes, cognitive styles or learning strategies. It turned out that good language learners, like self-made millionaires, have positive attitudes and strong motivation but differ widely in personality profiles. The latter was so unexpected that the authors concluded – rather surprisingly – that the lack of correlations between the dependent variables and personality traits was due to the instruments for measuring personality and cognitive traits lacking construct validity (see Dewaele & Furnham, 1999 for a closer analysis). Naiman et al. (1978) never wondered whether their own research design was to blame for the lack of significant relationships, especially their choice of L2 measures based on written performance. Interestingly, the (lack of) anxiety did not appear as a distinctive characteristic of good language learners. Based on the feedback received from participants to open questions about their learning behaviour and personality, Naiman et al. (1978) concluded that good language learners were meticulous, sociable, independent and persevering – but not anxiety-free.

One of the difficulties of the presenting existing research on psychological dimensions and Foreign Language Anxiety (FLA) is that all variables had been operationalized and measured in different ways, which led to confusing results when research started in the 1970s (MacIntyre, in press). I will show how SLA researchers adopted a broad framework in the 1980s that has been used and refined ever since. Personality psychologists have also operationalized and measured a plethora of personality traits, states and facets of personality traits using a wide range of approaches and instruments, which falls outside the scope of the present chapter. I will therefor refer to personality constructs that seem widely accepted in the field, and will pay particular attention to psychological dimensions that have been linked to FLA. In

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reviewing the literature, I will follow Plonsky and Oswald's (2014) recent re-interpretation of effect sizes in SLA research[1].

The Confounded Approach in foreign language anxiety (FLA) research

The first studies into the effects of anxiety on SLA (Chastain, 1976; Kleinmann, 1977; Swain & Burnaby, 1976; Tucker, Hamayan, & Genesee, 1976) gave contradictory results. In his early review of the literature Scovel (1978, p. 132) observed:

> The research into the relationship of anxiety to foreign language learning has provided mixed and confusing results, immediately suggesting that anxiety itself is neither a simple nor well-understood psychological construct and that it is perhaps premature to attempt to relate it to the global and comprehensive task of language acquisition.

In his recent overview of language anxiety research and trends, MacIntyre (in press) described this first phase of research as the Confounded Approach "because the ideas about anxiety and their effect on language learning were adopted from a mixture of various sources without detailed consideration of the meaning of the anxiety concept for language learners" (p. xx). The heart of the problem was, according to MacIntyre, the fact that "not all types of anxiety that can be defined and measured are likely to be related to language learning" (p. xx). Scovel (1978) tried to explain the inconsistent results by distinguishing, on the one hand, facilitating and debilitating anxiety, and, on the other hand, trait and state conceptualizations of anxiety, namely the general tendency to experience anxiety across situations (trait) and the more occasional experience of feeling anxious in specific situations (state) (cf. Spielberger, 1966). MacIntyre (in press) argued that the distinction between facilitating and debilitating anxiety has "not been a particularly useful path for SLA research, but the trait/state distinction has been conceptually solid"[2] (p. xx).

The Specialized Approach in foreign language (classroom) anxiety research

The second phase of anxiety research in SLA, according to MacIntyre (in press), was the Specialized Approach, which started with the publication of Horwitz (1986) and Horwitz, Horwitz, and Cope (1986). The authors were influenced by Gardner's suggestion (1985, p. 34) that the "the conclusion seems warranted that a construct of anxiety which is not general but instead is specific to the language acquisition context is related to second language achievement". Gardner argued for a re-orientation of the conceptualization and measurement of anxiety in SLA and contributed himself to this second phase of research in the late 1980s in collaboration with MacIntyre.

Horwitz, Horwitz, and Cope (1986) developed the construct of (Foreign/Second) Language Anxiety which reflected an individual's tendency to be anxious in the specific situation of language learning. Horwitz (in press) explained that "specific anxieties have characteristics of both trait and state anxieties. When individuals experience Language Anxiety, they have the trait of feeling state anxiety when participating in language learning and/or use. It is also likely that individuals who experience Language Anxiety would feel anxious simply thinking about language learning and/or use" (p. xx).

Horwitz et al. (1986) included descriptions of three specific anxieties: Communication Apprehension (anxiety about (public) speaking), Test Anxiety (anxiety experienced in testing situations or in anticipation of testing situations), and Fear of Negative Evaluation (the fear that people will judge the learner negatively) to illustrate concepts of specific anxieties. Horwitz (in press) explained that these three related anxieties were merely examples of specific anxieties, not the three unique components of foreign language classroom anxiety, as it was assumed in later research (cf. Aida, 1994).

Horwitz (1986) developed the argument that Language Anxiety was only analogous to - and not composed of - the three related anxieties. She described the development and validation of the 33-item Foreign Language Classroom Anxiety Scale (FLCAS). The items came from a number of sources including the experiences of anxious language learners. Internal consistency for the FLCAS, measured by Cronbach's Alpha, was high (.93). In order to demonstrate the independence of FLCA from previously reported specific anxieties, Horwitz calculated the correlations between her FLCA scores and other types of anxieties such as Trait Anxiety, Communication Apprehension, Test Anxiety, and Fear of Negative Evaluation[3]. Horwitz' aim was to demonstrate how small the overlap was between FLCA and the three analogous anxieties "in order to establish the construct validity of a scale designed to elicit foreign

language anxiety" (Horwitz, in press, p. xx). She found a non-significant correlation of $r = .28$ ($p = .063$) between the FLCAS and the Personal Report of Communication Apprehension, and significant correlations of $r = .36$ ($p < .007$) between the FLCAS and the Fear of Negative Evaluation Scale and the Test Anxiety Scale ($r = .53$, $p < .001$). These results suggest a moderate effect, with 13% of explained variance for the first correlation analysis, and 28% for the second analysis. Horwitz (1986) argued that the results supported the contention that FLA could be discriminated from the related constructs but admitted that a moderate association existed with test anxiety. She also found a significant positive correlation of the FLCAS with the Trait scale of the State-Trait Anxiety Inventory (Spielberger, l983) ($r = .29$, $p < .002$), which represents a small effect size with 8.4% of explained variance. Looking back at her original study, Horwitz concluded that "people who are generally anxious in their lives may be slightly more likely to be anxious in language learning. This finding also means that some anxious language learners do not experience a general tendency to anxiety in their daily lives" (Horwitz, in press, p. xx). She concluded that the amounts of shared variance between the FLCAS and the other anxiety measures were small enough to support "the construct validity of the FLCAS and the existence of Language Anxiety as a specific anxiety independent of other types of anxiety" (p. xx).

MacIntyre and Gardner (1989) collected data from 104 Anglo-Canadian students who had French as an L2 and used factor analysis on various anxiety scales (Trait Anxiety Scale, State Anxiety, Test Anxiety, Computer Anxiety Scale, specific Classroom Anxieties (measuring anxiety in classes of Mathematics, French L2 and English L1), French Use Anxiety Scale and Audience Sensitivity). The factor analysis yielded a two-factor solution that accounted for 48% of the variance. Factor 1 was labelled General Anxiety after showing high loadings from the Trait Anxiety Scale, the State Anxiety Scale, the Test Anxiety Scale, the Computer Anxiety Scale, and the Mathematics Class Anxiety Scale. The authors justify the naming of this first dimension by the fact that the "scales that comprise it are not related to language behavior in a reliable manner" (p. 268). Factor 2 was named Communicative Anxiety as it obtained high loadings from French Class Anxiety, French Use Anxiety, English Class Anxiety, and the Audience Sensitivity Scale. The authors observe that "each of these measures involves, to some extent, anxiety reactions in oral communication situations" (p. 261). A further study by MacIntyre and Gardner (1991) included 19 anxiety measures, with four scales related to French L2 learning. Factor analysis provided more evidence of the differentiation between types of anxiety measures. Three factors emerged reflecting General/Social-evaluative Anxiety, State Anxiety, and a unique Language Anxiety factor. The authors also found that the Language Anxiety factor was the only one to be related to performance on two measures of processing linguistic material in French L2.

MacIntyre and Gardner (1994) became interested in the "subtle effects" of anxiety and its sources on L1 and L2 language performance across three stages of cognitive processing: (1) language input stage, (2) processing and interpreting the language, and (3) the output stage at which knowledge of the language can be demonstrated. They developed new scales reflecting specific types of language anxiety at these three stages. The authors concluded that: "(t)he potential effects of language anxiety on cognitive processing in the second language appear pervasive and may be quite subtle. Performance measures that examine only behavior at the output stage may be neglecting the influence of anxiety at earlier stages as well as ignoring the links among stages" (p. 301).

The Dynamic Approach in foreign language (classroom) anxiety research

The third phase of anxiety research, according to MacIntyre (in press), is the Dynamic Approach, which gained popularity around 2010 among SLA researchers. The aim of this approach is to situate anxiety among a range of interacting factors that affect SLA: "Anxiety is continuously interacting with a number of other learner, situational, and other factors including linguistic abilities, physiological reactions, self-related appraisals, pragmatics, interpersonal relationships, specific topics being discussed, type of setting in which people are interacting, and so on" (MacIntyre, in press, p. xx). Anxiety is seen as an emotion that is constantly fluctuating over different timescales. One study adopting this approach is Gregersen, MacIntyre, and Meza (2014) which investigated the causes of spikes in anxiety during L2 speaking. The researchers measured heart rates of six pre-service teachers who were making a classroom presentation in L2 Spanish. Following the presentation, the participants met with the instructor and

reviewed the video recording of their presentation using the idiodynamic procedure (MacIntyre 2012) which shows changes in anxiety in real time. Anxiety spikes emerged when speakers forgot words or lost the thread of their presentation. Highly anxious participants (measured with the FLCAS) were more likely to experience spikes in anxiety, possibly because they had memorized their presentations.
MacIntyre and Serroul (2015) considered the dynamic interaction of motivation and anxiety when L2 users run into lexical or grammatical difficulties. They argue that problems cascade, which they compare to four hostile horsemen. Firstly an inhibition system is activated by the appraisal of a clear and present threat, which shifts attention away from the language production to the interlocutor and the threat to the speaker's positive sense of self and to the interpersonal relationship. If the difficulties persist, the speaker activates coping efforts and starts to perceive an emerging anxiety reaction. The heightened anxiety exacerbates communication difficulties as it generates distracting, self-deprecating cognition that distracts from the communication at hand and shifts cognition toward face saving strategies, or ways to end the communication all together. In addition to the cognitive, emotional and linguistic difficulties, the speaker experiences the familiar physical reactions associated with high anxiety, such as perspiration, a racing heart, shaky limbs, and butterflies in the stomach. It all leads to frustration and increased avoidance motivation, declining perceptions of competence and lower willingness to communicate (MacIntyre & Serroul, 2015). What the study shows is that "the anxiety state reflects the coalescence of a number of dynamically changing processes" (MacIntyre, in press, p. xx).

CURRENT ISSUES

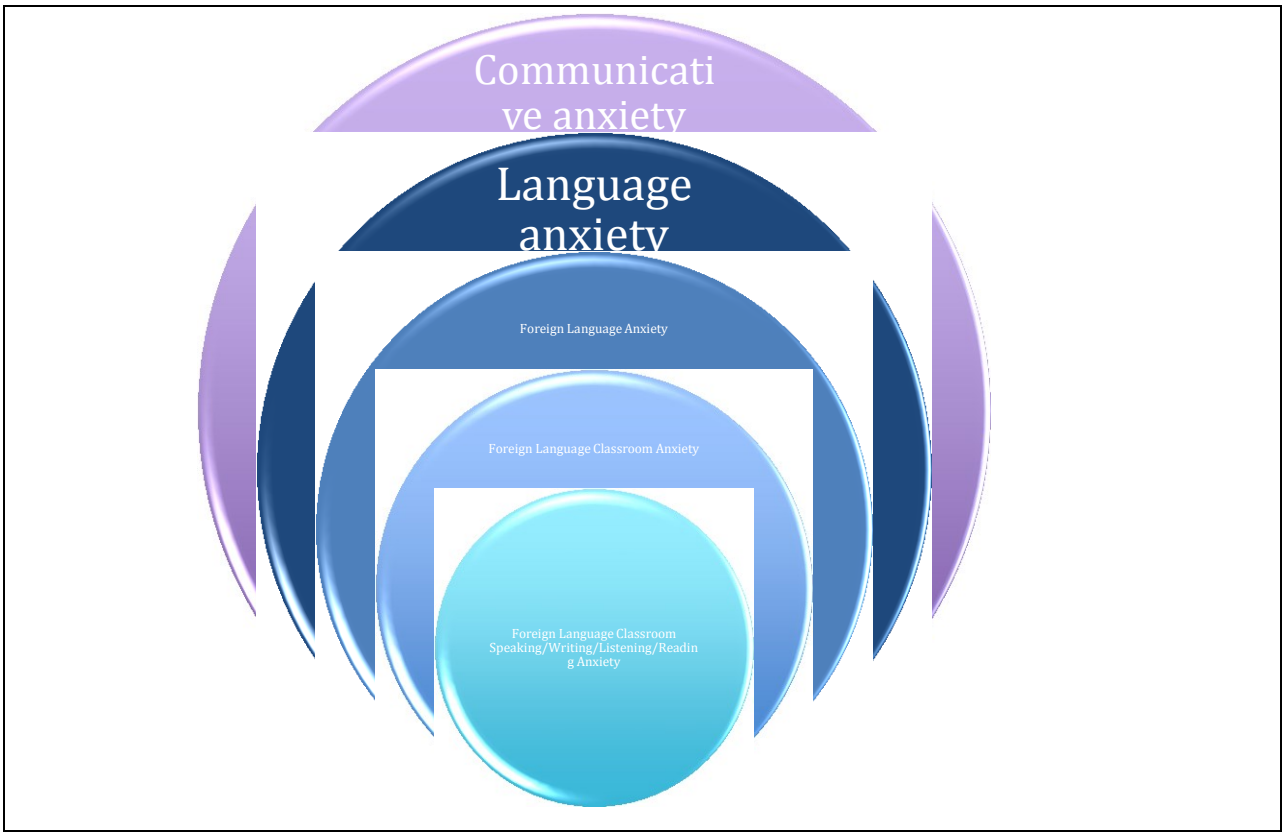
It would be slightly depressing to state that the current issues in anxiety research in the field of the SLA are the same as before. There is some truth in this however. It does not mean that the field has been standing still, as the previous overview clearly shows. Researchers have developed new instruments and approaches to observe the anxiety of FL learners and users. Demonstrating progress in science is a challenging task because it can be hard to establish clear boundaries among fields, currents, and periods, such as MacIntyre's (in press) distinction between the Confounded, the Specialized and the Dynamic approaches. The complexity of anxiety research defies easy categorisations. Inevitably, approaches can overlap, co-exist and some may gain in dominance over time before losing it again. Another way of looking at the field is through a research time-line such as Horwitz (2010) who identified 44 milestones "in the development of the language teaching profession's understanding of anxiety reactions in response to L2 learning and use" (p. 154). She admits that such an exercise is inevitably subjective. The trend that she observes is quite similar to MacIntyre's (in press) overview. Many of the early articles, Horwitz (2010) notes, "address the nature of FLA as contrasted with or related to other anxiety types (…) and the effects of anxiety especially on language achievement" (p. 154). Later work was more concerned "with sources of FLA and its stability or variation under different instructional or socio-cultural conditions (…), the relationship of FLA with other learner factors (…), anxieties in response to specific aspects of language learning such as listening, reading, or writing (…), and instructional strategies to reduce FLA" (p. 154).

Some of the old questions remain valid today, such as the negative effect of FLA/FLCA on progress in L2 development (MacIntyre, 1999, MacIntyre & Gregersen, 2012) but the reasons for asking them may have shifted over time. The questions that Elaine Horwitz, Robert Gardner, and Peter MacIntyre asked in the 1980s about the relationship between trait, state anxiety and FLA were motivated by a desire to prove that FLA/FLCA was a unique construct. Significant relationships between other anxieties and FLA/FLCA were therefore slightly downplayed. It would not have served their call for independence of the concept by dwelling too much on its links with existing recognised forms of anxiety. They made a convincing case that FLA had both trait and state-like characteristics (MacIntyre, 2007) but that FLA was an experience that arose uniquely in foreign language classrooms or in instances of foreign language communication.

It should be noted that participants in their studies were always students who were still studying a foreign language. In other words, they were foreign language *learners* rather than experienced foreign language *users*. This distinction may seem of little importance but I would argue that it matters. Of course, language teachers need to know about the FLA/FLCA that their students may suffer in their

classrooms, and find ways to alleviate anxiety. However, there are more foreign language users in the world than foreign language learners (cf. Cook, 2002). An exclusive focus on the emotions of children and young adults learning languages in schools and universities might create a distorted image as it ignores the majority of adult foreign language users in the world. These foreign language users are typically still developing their language skills outside school and should therefore be included within a larger ISLA context. My own research has thus generally included a wider range of ages and backgrounds of participants. As the concept of FLA/FLCA is well established in our field, we can now freely explore to what extent FLA/ FLCA is linked to other personality characteristics. Finding such links pose no threat to the independence of the construct as it merely enriches our understanding of it. In fact, considerable psychological research seeks links between personality traits and various psychological dimensions.

Key Concepts:
Foreign language anxiety (FLA): "the worry and negative emotional reaction aroused when learning or using a second language" (MacIntyre, 1994, p. 27).
Foreign Language Classroom Anxiety (FLCA): "a distinct complex of self-perceptions, beliefs, feelings and behaviors related to classroom learning arising from the uniqueness of the language learning process" (Horwitz et al., 1986, p. 128).
Relationship between the anxieties of foreign language learners and users: A nested design could be imagined with Communicative Anxiety as the outer ring, with gradually smaller inner rings starting with Language Anxiety, Foreign Language Anxiety, Foreign Language Classroom Anxiety, and the anxieties linked to specific classroom activities such as speaking, listening, reading and writing (see figure X).



Key Concepts: Higher-order personality traits: 'refer to consistent patterns in the way individuals behave, feel and think' (Pervin & Cervone, 2010, p. 228). The Big Five bipolar higher-order dimensions are openness to experience, conscientiousness, extraversion versus introversion, agreeableness, and neuroticism versus emotional stability which are situated at the summit of the hierarchy (2010, p. 228). Another higher-order dimension used by some psychologists is **Psychoticism**, typified by aggressiveness and interpersonal hostility. These higher-order dimensions are correlated with facets beneath them. For example, people who score high on **Openness to experience** are typically creative, original, imaginative, curious, and flexible, those at the low end of the dimension are unartistic, conservative, conventional, practical and down-to-earth.

People who score high on **Conscientiousness** are typically meticulous, efficient, organized, reliable, hard-working, and persevering; low scorers are typically unreliable, careless, disorganized, lazy and negligent.

Extraverts are typically talkative, assertive, sociable, gregarious, active and passionate; Introverts tend to be shy, passive, quiet, reserved, withdrawn and sober.

People who score high on **Agreeableness** are typically friendly, good-natured, kind, trusting, cooperative, modest, and generous; low scorers are typically cold, rude, unpleasant, critical, antagonistic, suspicious and uncooperative.

People who score high on **Neuroticism** tend to worry, to be anxious, insecure, depressed, emotional, and unstable; people at the **Emotional Stability** end of the scale are typically calm, relaxed, hardy, content, even-tempered, and self-satisfied.
Distribution on personality dimensions: Scores are normally distributed, meaning that a majority of people are situated in the middle of the dimension.

EMPIRICAL EVIDENCE

Higher order personality traits and FLA/FLCA

Personality traits "summarize a person's typical behavior" (Pervin & Cervone 2010, p. 229) and psychologists agree that there are five broad, bipolar dimensions, the so-called Big Five (p. 228), which are situated at the summit of the hierarchy (for a more detailed description, see the Key Concepts section); there are a large number of narrower facets, "lower-order" personality traits, that are often correlated with Big Five traits but also explain unique variance. Trait Emotional Intelligence, for example, was shown to share more than 50% of the total variance with the Big Five personality traits (Extraversion, Neuroticism, Openness, Agreeableness, and Conscientiousness) (Petrides, Vernon, Schermer, Ligthart, Boomsma, & Veselka, 2010). The authors presented this overlap as a strength rather than a weakness.

The earliest empirical evidence of the link between FLCA and more general personality characteristics was already presented in the overview: Horwitz (1986) reported significant positive correlations between the FLCAS and the Fear of Negative Evaluation Scale, the Test Anxiety Scale and the Trait scale of the State-Trait Anxiety Inventory which meant that people who are anxious in general, are also typically more anxious in language learning.

MacIntyre and Charos (1996) toyed with the idea of linking language anxiety with Emotional Stability (which is the positive end of the Neuroticism dimension) in a group of Anglo–Canadian students with French L2. They noted, "individuals with lower emotional stability may be more prone to language anxiety" (p. 11). However, they decided not to investigate this possible link from emotional stability to language anxiety "because prior research has demonstrated that language anxiety is not strongly related to general trait anxiety, which would be reflected in a lack of emotional stability" (p. 11). They also found, unsurprisingly, that introverts, who are typically quieter and shy, suffered significantly more from L2 anxiety.

Dewaele (2002), in a study of 100 Belgian L1 Dutch-speaking learners of L2 French, failed to find a correlation between levels of FLA and scores on Extraversion, Neuroticism, and Psychoticism. Surprisingly, significant relationships did emerge between these three personality dimensions and the same students' levels of FLA in L3 English: Psychoticism ($r = –.30$, $p < .01$), Extraversion ($r = .23$, $p < .05$), and Neuroticism ($r = .22$, $p < .05$). The effect sizes ranged from 4.8% to 9% of variance explained, which can be described as small. The hypothesis that extraverts being more talkative and optimistic would be less anxious was confirmed only for L3 English, but not for L2 French. The same puzzling finding for Psychoticism and Neuroticism defied a simple explanation. High scorers on Psychoticism were expected to be less anxious because they typically care less about being perceived positively by interlocutors, and participants scoring high on the Neuroticism scale, which reflects general trait anxiety, were expected to be more worried about their performance in *both* foreign languages, not just one. Interestingly, FLA in French turned out to be linked not to psychological variables but to social class, with students from lower social classes being significantly more anxious in French. This finding could be linked to the fact that French used to be a prestigious language in Flanders, spoken fluently by members of higher social classes. French thus used to be a social marker and this perception seemed to linger on, overriding the effects of personality traits. The finding of a relationship between personality traits and FLA for one foreign language but not for another had some unexpected implications for previous research. When Horwitz, MacIntyre, and Gardner talked about FLA and FLCA in their work, they based their findings on a *single* foreign language, and seemed to assume that relationships they uncovered would apply to all foreign languages equally. Retrospectively, it would have been interesting to investigate whether the relationships uncovered by Horwitz, MacIntyre, and Gardner over the years for the L2 also appeared in

the L3 or L4 of any participants who knew more than two languages. What Dewaele (2002) showed was that interrelationships between psychological variables were more dynamic than had been assumed so far.

Dewaele (2013) investigated the link between three global personality traits (Psychoticism, Extraversion, and Neuroticism) and levels of FLCA (Horwitz et al., 1986) in the second (L2), third (L3), and fourth (L4) languages[4] of two groups of adult language learners and users. The first group consisted of 86 students from London, and the second group consisted of 62 students from Mallorca. All students were studying at least two foreign languages (i.e. languages learnt after the age of three). Correlation analyses revealed a significant positive link between Neuroticism and FLCA in the L2 and L3 -but not the L4- of the London group (L2: $r = .31$, $p < .01$, L3: $r = .27$, $p < .05$ and L4: $r = .30$, $p = .08$ respectively). Similar patterns emerged for the Mallorca group (L2: $r = .34$, $p < .01$; L3: $r = .50$, $p < .001$ and L4: $r = .51$, $p < .01$ respectively). In other words, Neuroticism and FLCA shared between 9% and 25% of variance in most foreign languages, which can be described as small to moderate effect sizes. Psychoticism and Extraversion were unrelated to FLCA in the London group but were significantly negatively related with the L3 for the Mallorca group ($r = -.26$, $p < .05$ and $r = -.29$, $p < .05$, respectively). These are small effects sizes with 6.7% and 8.4% of variance explained. These findings further confirmed that the strength of association between personality traits and FLCA varies from language to language for the same participants, and that the effects of Extraversion and Psychoticism were inexplicably different in the two groups.

A further study involving sociobiographical variables and higher-order personality traits and FLCA was that by Dewaele and Al Saraj (2015). Participants were 348 Arabic learners of English in the Arab world who filled out the Arabic Foreign Language Anxiety Questionnaire – a culturally adapted version of the FLCAS consisting of 33 items - and an Arabic version of the Multicultural Personality Questionnaire-Short Form (van der Zee, van Oudenhoven, Ponterotto, & Fietzer, 2013). Pearson correlation analyses revealed that FLCA was significantly and negatively correlated with four personality traits: Cultural Empathy ($r = -.13$, $p < .05$), which is strongly related to the Big Five dimension of Agreeableness; Social Initiative (strongly linked with Extraversion) ($r = -.34$, $p < .0001$), Openmindedness (strongly linked with Openness-to-experience) ($r = -.36$, $p < .0001$), and Emotional Stability (the positive end of the Neuroticism dimension) ($r = -.46$, $p < .0001$). In other words, the multicultural personality traits shared between 1.7% and 21.1% of variance with FLCA, which can be described as small to moderate effect sizes. A multiple regression analysis, including sociobiographical variables, revealed that Emotional Stability and Social Initiative together explained 18.5% of variance in FLCA, a result which is similar to the findings for Neuroticism and Extraversion in Dewaele (2013). It thus seems that the more extravert students and the emotionally stable students—who can stay calm under "novel and stressful conditions" (van der Zee et al., 2013, p. 118)—suffered less from FLCA. The correlations between FLCA and Openmindedness and Cultural Empathy suggest that learners with an open and unprejudiced attitude toward cultural differences and an ability to empathize with the feelings, thoughts, and behaviours of culturally diverse individuals tended to suffer less from FLCA. Similar patterns emerged in Dewaele and MacIntyre (2016b). A group of 750 FL learners from mostly Europe and North America filled out 8 items from the FLCA (Horwitz et al., 1986), the Foreign Language Enjoyment scale (Dewaele & MacIntyre, 2014) and the Multicultural Personality Questionnaire (van der Zee et al., 2013). A multiple regression analysis revealed that Emotional Stability explained 28.4% of variance in FLCA while Social Initiative explained a further 3.3% of variance. Interestingly, Cultural Empathy predicted 8% of variance of FLE.

A slightly different approach was taken by Muehlfeld, Urbig, Van Witteloostuijn, and Gargalianou (in press) who argued that gender is a crucial mediating variable between general personality traits (measured with the HEXACO Personality Inventory-Revised version) and FLCA. The authors looked at 320 adult L1 Dutch speakers who had English as a foreign language and found that their 106 female participants experienced higher levels of FLCA (measured with a shortened version of the FLCAS), but that this association was mediated by differences in personality. The female participants scored higher on emotionality and conscientiousness — dimensions which happened to be most strongly linked with FLCA. There was a significant positive correlation between FLCA and Emotionality ($r = .34$, $p < .001$),

which includes trait anxiety. Tests of discriminant validity did show that this trait anxiety was psychometrically distinct from FLCA. Conscientiousness was the second personality dimension to be related to FLCA (r = .20, p < .001). People who score higher on this dimension tend to be well-organized, dependable and self-disciplined. The authors suggest that Conscientiousness is related to more negative and more emotional responses to speech errors. The third dimension was Extraversion (r = -.15, p < .01), which the authors explain by the fact that more introverted people are more likely to feel threatened by being exposed within a group. The effect sizes were thus small, explaining between 2.2% and 11.5% of shared variance.

Lower order personality traits and FLA/FLCA

Research has also focused on the link between FLA/FLCA and lower order personality characteristics or constituent facets. Dewaele, Petrides, and Furnham (2008) was the first published study to link FLA with Trait Emotional Intelligence (Trait EI) – also known as emotional self-efficacy and defined as a constellation of emotional self-perceptions[5] located at the lower (and narrower) levels of personality hierarchies. Trait EI was measured with the Trait Emotional Intelligence Questionnaire–Short Form (Petrides & Furnham, 2006). Trait EI is positively linked to Extraversion and Emotional Stability. The study considered the effects of sociobiographical variables and of Trait EI on communicative anxiety in the first language and FLA in the L2, L3 and L4 of 464 adult multilinguals individuals, in five different situations (speaking with friends, colleagues, strangers, on the phone, and in public). Participants with lower levels of Trait EI suffered significantly more from FLA in almost all situations in all their languages, including their L1. Kruskall Wallis tests indicated that the effect of Trait EI was most significant in the L1 when speaking with colleagues, strangers, on the phone, and in public (all p < .0001). It remained significant (p < .05) for all situations in the L2, L3 and L4. An analysis of the χ^2 values suggest a small effect size, with Trait EI explaining between 1.7% and 4.5% of variance across languages and situations. The drop in FLA was relatively limited between the low and average Trait EI groups in the L2 and L3 but was much steeper between the average and the high Trait EI groups. One possible explanation was that the high Trait EI group had a stronger self-belief in their ability to regulate stress levels and to express themselves, and were better equipped to recognise the emotional state of their interlocutors which led to lower levels of FLA.

These findings were confirmed in Shao, Yu, and Ji (2013) who considered the relationship between FLCA and Trait EI among 510 Chinese students in English classes. Students' scores on Trait EI and FLA (r = .68, p < .01) were negatively and significantly correlated with each other and explained 46% of the variance. High levels of Trait EI corresponded with low levels of FLA. Students who scored high on Trait EI and low on FLA were also found to perform better in English examinations.

Dewaele and Tsui Shan Ip (2013) looked at the effect of another psychological dimension on FLCA, a dimension that Ely (1995) had been previously linked to SLA, namely Second Language Tolerance of Ambiguity. The study was based on data from 73 secondary school students in Hong Kong, which reported on FLCA in their English classes using Horwitz et al.'s (1986) questionnaire. Results showed that students who were more tolerant of second language ambiguity were significantly less anxious in their EFL classes (r = -.71, p < .0001) and also felt more proficient in English. The effect size is large, as more than half of the variance is explained (50.4%). The finding was interpreted in the light of the knowledge that people feel anxious when there is ambiguity (Gudykunst, 2005), and that EFL learners in particular have to deal with ambiguity in the input, uncertainty about the exact meaning of English words and phrases, and difficulty in recognising unfamiliar phonemes or prosody, which raises FLCA levels. Those with lower levels of Second Language Tolerance of Ambiguity are at a particular disadvantage in that situation and will suffer more from anxiety than their peers with higher levels of Second Language Tolerance of Ambiguity.

Dewaele (in press) investigated the relationship between Foreign Language (Classroom) Anxiety and Perfectionism. Three different groups of participants provided data via online questionnaires: an international group of 58 adult multilingual English FL users filled out the Frost Multidimensional Perfectionism Scale (FMPS) (Frost et al., 1990) and a questionnaire on Foreign Language Anxiety (Taguchi et al., 2009); 69 Saudi students filled out the FMPS and the FLCAS; and 323 Japanese

university students filled out the Multidimensional Self-oriented Perfectionism Scale (Sakurai & Ohtani, 1997) and a selection of items from the FLCAS. Significant positive relationships emerged between Perfectionism and FLA/FLCA in the international group ($r = .38$, $p < .001$), in the Saudi group ($r = .29$, $p < .018$) and in the Japanese group ($r = .22$, $p < .0001$), suggesting that more perfectionist respondents felt more anxious when using English. The effect sizes vary from small towards moderate (ranging from 4.8% to 14.4% of variance explained). These results confirmed the findings of an earlier study by Gregersen and Horwitz (2002) who found that highly anxious participants exhibited perfectionist tendencies. Gregersen and Horwitz focused on the four most anxious and the four least anxious Chilean language students (out of a pool of 78 students who wanted to become English teachers) on the basis of the FCLAS scores. The highly anxious students were more motivated by negative than positive emotions, they delayed getting started on work that would be judged, and they perceived anything less than perfect as a failure. The authors found that the anxious learners scored significantly higher than the non-anxious learners on personal performance standards and procrastination, in other words, perfectionist tendencies.

The last two studies, by Wang (2010) and Lin and Jackson (2008) focused on Chinese learners of English.

Wang (2010) looked at the effect of personality variables on FLA among 240 Chinese learners of English. The author found that learners with higher levels of English speaking anxiety scored higher on Trait anxiety ($r = .34$, $p < .01$) and on unwillingness to communicate with others ($r = .57$, $p < .01$). Higher speaking anxiety was also linked to lower rates of risk-taking in the English class ($r = -.54$, $p < .01$), language class sociability ($r = -.33$, $p < .01$), and speaking self-efficacy ($r = -.38$, $p < .01$). Moreover, high speaking anxiety was negatively correlated with English achievement ($r = -.36$, $p < .01$). The effect sizes were moderate, explaining between 10% and 32.5% of variance.

Wang's results confirmed a previous study by Liu and Jackson (2008) on 547 Chinese students of English. The authors found that FLCA (Horwitz et al., 1986) was positively correlated with unwillingness to communicate ($r = .34$, $p < .01$), but negatively with language class risk-taking ($r = -.46$, $p < .01$) and language class sociability ($r = -.35$, $p < .01$). The effect sizes were moderate, varying between 10% and 21% of variance explained. Further analyses showed that unwillingness to communicate and FLCA shared common predictors.

Summary and some epistemological and methodological considerations

To sum up, research has uncovered significant links between FLA/FLCA and a range of higher order personality traits (mainly Neuroticism-Emotional Stability, Introversion-Extraversion or Social Initiative, and - to a lesser extent - also Psychoticism, Conscientiousness, Openmindedness, Cultural Empathy). Similarly, relationships have been found between FLA/FLCA and a number of lower-order personality traits or psychological dimensions. These include Trait EI, Perfectionism, Trait anxiety, Unwillingness to communicate, Risk-taking in the FL class, FL class sociability and Speaking self-efficacy. The effect sizes in all studies were typically small or moderate with only a few tending towards "large" (i.e. explaining more than 36% of variance). In other words, there is no doubt that FLA/FLCA is a unique construct, but it is just one node in a large spider web of personality traits and states. To extend the metaphor, one could argue that the spider web itself is gently pushed around by the wind and by flies that may have been captured in the web. In other words, the effects of various psychological variables on levels of FLA/FLCA are not constant but dynamic and often language-specific. On top of these complex interactions come other layers of sociobiographical, situational, and social variables, which could interact among themselves but also with a wide range of psychological variables. This inherent complexity has practical implications for the research designs of quantitative researchers: the number of independent variables that could have a direct or indirect effect on FLA/FLCA is so large that they cannot all be included in one massive analysis. This limitation means that quantitative researchers are forced to focus on one or two handfuls of independent variables at the most. Rather than illuminating the whole set of relationships between variables and FLA/FLCA with dazzling sunlight, they are forced to restrict themselves to particular areas with a flashlight. This narrow focus does not lessen the value of the findings but it requires intellectual honesty about their generalizability.

What this overview of research on personality and FLA/FLCA demonstrates is that we have come a long way since the early research on the good language learner. We have become aware that no single psychological characteristic can be identified as the most beneficial in SLA. We have understood that we cannot automatically generalise findings from one single context even if the statistical results allow us to reject the null-hypothesis. We have learned that individual learners cannot be isolated from their geographical, social and historical context. In other words, two learners with identical psychological profiles may experience different levels of anxiety in the FL class and may attain very different levels of mastery in the FL depending on where they are in the world. The assumption that two individuals may have identical psychological profiles is problematic in itself, because their life experiences will differ: they may have fallen in love with – or started hating- different books or people from different language backgrounds, they may have spent some time abroad using the foreign language in different situations, and the period abroad may have been a happy – or a less happy- period in their life, which could have affected the perception of the language used during that time. As researchers we may search for commonality but we need to keep in mind that unique triggers or life events may have a much bigger effect on the emotions that learners experience and on their ultimate "success" in SLA than do carefully measured dimensions (cf. Dewaele, 2013b). I realise that this situates me clearly in what MacIntyre (in press) calls the Dynamic Approach. This is fine with me, as long as it does not imply a rejection of quantification based on the argument that "SLA does not lend itself easily to quantitative investigations, because the number of confounding variables is extensive and some of them cannot be measured at the level of precision that is required" (Dörnyei, 2009, p. 242). I explained that some degree of reductionism is inevitable in quantitative research but this does not mean that group averages "iron out idiosyncratic details that are at the heart of understanding development in dynamic systems" (Dörnyei, 2014, p. 83). Other approaches allow researchers to zoom in on idiosyncratic details. I argue that we should not discard the – by nature – incomplete view from above for a complete view of an idiosyncratic detail. To understand the life of trees we need views from the forest as well as from individual trees. The Dynamic Approach is fine as long as it does not restrict the methods used in the exciting hunt for individual differences.

PEDAGOGICAL IMPLICATIONS

While FL learners (and users) will always have different personality profiles, and experience different levels of FLA/FLCA, teachers can do quite a lot to alleviate anxiety and boost enjoyment in their FL classes. Oxford (in press) explored the ideas and strategies from Positive Psychology and Abnormal Psychology to help anxious language learners change their minds. She suggested that teachers can intervene to calm learners whose language anxiety is of a social nature by allowing them to be gradually exposed to language performance situations rather than avoiding them and by using cognitive and affective techniques to face those situations. Drawing on Rational-emotive therapy, teachers can encourage learners to identify their negative assumptions at home, and then in a social situation forcing themselves to speak up in order to defeat the negative assumptions. Social skills training can also help learners treat their social fears. Oxford suggested that therapists or teachers can help students with high levels of generalised anxiety to identify their maladaptive assumptions and to encourage them to change their assumptions in settings that would typically trigger their anxiety. In addition to relaxation training and biofeedback teachers could help anxious learners recognise "the role of worrying and their misconceptions about worrying; having them observe their physical arousal and the triggers to their anxiety; and helping them see the world as less threatening and hence less anxiety-provoking" (p.). Oxford also delved in the literature on Positive Psychology and suggested that an increase in positive emotions and emotional intelligence can help learners control their language anxiety: "The learner uses ABCDE to recognise that beliefs about adversity cause consequent negative feelings (e.g. anxiety), but disputation, i.e. presenting counter-evidence, results in energisation, or a positive change of mind (Seligman, 2006)" (p.). Teachers can also strengthen anxious learners' ability "to take their minds off failure or difficulties and instead visualise something interesting in the language activity or text" (p.) and help them letting go of emotional icebergs and grudges. By creating a positive classroom climate teachers can increase flow and intrinsic motivation among all learners, including the anxious ones. I joked

in Dewaele (2015, p. 14) that "learners' emotions are like wild horses (or at least, ponies). Learners can, with a little dexterity, and with a little help from teachers, harness the power of their emotions to absorb more of the FL and the culture".

Oxford (in press) argued that anxious learners can also be encouraged to increase their agency, i.e. taking responsibility for their own learning through the use of a range of cognitive, metacognitive, social, and affective strategies. Teachers can also use joking to help anxious learners overcome their negative emotions. Boosting optimism and hope among learners is also something all teachers should do. By teaching learners how to generate alternative pathways toward a particular goal and how to use positive self-talk (Oxford, 1990, 2011) teachers can help anxious students remove temporary blockages toward goals. Teachers' adoption of an optimistic explanatory style can help learners make more positive attributions, i.e., not viewing negative situations as permanent (Oxford, in press). Oxford's conclusion is that these teacher (and therapist) interventions can help learners overcome their social or generalised anxiety.

FUTURE DIRECTIONS

There is an increasing interest in the psychology of language learning, with a first international conference on *Matters of the Mind – Psychology of Language Learning* organised by Sarah Mercer in Graz - Austria in May 2014, a second conference *Individuals in Contexts: Psychology of Language Learning 2* organised by Paula Kalaja in Jyvaskyla - Finland in August 2016 and a third conference organised by Stephen Ryan in Tokyo in 2018. There is room for expansion in different directions. I like the idea of looking at nonverbal language anxiety cues (cf. Gregersen, MacIntyre, & Olson, in press), which teachers should learn to recognise.

Another avenue of investigation is the effect of type of teaching (more or less communicatively-oriented) on the anxiety that learners experience. In Dewaele, Witney, Saito and Dewaele (2016), we focused on the effect of learner-internal and teacher-centred variables on self-reported levels of FLCA and Foreign Language Enjoyment (FLE) among 192 London high school students. Learner-internal variables (such as attitude towards the FL, level in the FL and gender) were found to be linked to both FLCA and FLE. Teacher-centred variables turned out to be unrelated to FLCA but strongly linked to FLE: participants reported significantly higher levels of FLE with teachers they liked, who were unpredictable, used the FL a lot (rather than the students' L1) and allowed sufficient time for learners to practice their oral skills.

One other way forward in research in anxiety is not to remain solely focused on this negative emotion. By bringing in positive emotions, such as FLE, into the picture, it becomes clear that mild anxiety can co-occur with enjoyment and that learners who experience more emotion overall in the FL classroom are more likely to progress (Dewaele & MacIntyre, 2014, 2016a; Dewaele, MacIntyre, Boudreau & Dewaele, 2016).

I strongly encourage SLA researchers to set up interdisciplinary research projects with personality, educational, cross-cultural, social and positive psychologists. As Mercer and Ryan (2016) argue, to understand language learning psychology, we need to stretch the disciplinary boundaries. Although the present chapter was mostly focused on quantitative research, there is also a rich qualitative approach within psychology and applied linguistics that could be further explored in SLA research (see, for example, Bailey, 1983; Gkonou, in press; Tóth, 2011; Yan & Horwitz, 2008). I personally feel that mixed methods, combining etic and emic approaches, quantitative and qualitative methods, could contribute a lot to SLA research (Dewaele, 2013b). An exclusive focus on means, p-values and variance can produce rather dry papers, yet they could be the backbone of rich and solid studies when combined with unique insights from participants, and where the voices of researchers join in duets with those of participants.

REFERENCES

Aida, Y. (1994). Examination of Horwitz, Horwitz, and Cope's construct of foreign language anxiety: The case of students of Japanese. *The Modern Language Journal, 78*, 155-168.

Bailey, K. M. (1983). Competitiveness and anxiety in adult second language learning: Looking at and through the diary studies. In H. W. Seliger & M. H. Long (Eds.), *Classroom-oriented research in second language acquisition* (pp. 67-103). Rowley, MA: Newbury House.

Chastain, K. (1975). Affective and ability factors in second language acquisition. *Language Learning, 25*, 153-161.

Cook, V. J. (2002). *Portraits of the L2 User*. Clevedon: Multilingual Matters.

Dewaele, J.-M. (2002). Psychological and sociodemographic correlates of communicative anxiety in L2 and L3 production. *The International Journal of Bilingualism*, *6*, 23–39.

Dewaele, J.-M. (2013a). The link between Foreign Language Classroom Anxiety and Psychoticism, Extraversion, and Neuroticism among adult bi- and multilinguals. *The Modern Language Journal*, *97*, 670-684.

Dewaele, J.-M. (2013b). Second and additional language acquisition. In Li Wei (Ed.), *Applied linguistics* (pp. 46-68). Malden, MA and Oxford, UK: Wiley-Blackwell.

Dewaele, J.-M. (2015). On emotions in foreign language learning and use. *The Language Teacher*, *39*, 13-15.

Dewaele, J.-M. (in press). Are perfectionists more anxious foreign language learners and users? In C. Gkonou, M. Daubney & J.-M. Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications*. Bristol: Multilingual Matters.

Dewaele, J.-M. & Al Saraj, T. (2015). Foreign Language Classroom Anxiety of Arab learners of English: The effect of personality, linguistic and sociobiographical variables. *Studies in Second Language Learning and Teaching*, *5*, 205-230.

Dewaele, J.-M. & Furnham, A. (1999). Extraversion: The unloved variable in applied linguistic research. *Language Learning*, *49*, 509-544.

Dewaele, J.-M. & MacIntyre, P. (2014). The two faces of Janus? Anxiety and Enjoyment in the Foreign Language Classroom. *Studies in Second Language Learning and Teaching*, *4*, 237-274.

Dewaele, J.-M. & MacIntyre, P. (2016a). Foreign Language Enjoyment and Foreign Language Classroom Anxiety: The right and left feet of the language learner. In P. MacIntyre, T. Gregersen & S. Mercer (Eds.), *Positive psychology in SLA* (pp. 215-236). Bristol: Multilingual Matters.

Dewaele, J.-M. & MacIntyre, P. D. (2016b). The predictive power of multicultural personality traits, learner and teacher variables on Foreign Language Enjoyment and Anxiety. Paper presented at the International Conference on Language and Social Psychology, Bangkok.

Dewaele, J.-M., MacIntyre, P. D., Boudreau, C. & Dewaele, L. (2016). Do girls have all the fun? Anxiety and Enjoyment in the Foreign Language Classroom. *Theory and Practice of Second Language Acquisition*, *2* (1), 41–63.

Dewaele, J.-M., Witney, J., Saito, K. & Dewaele, L. (2016). Foreign language enjoyment and anxiety in the FL classroom: the effect of teacher and learner variables. Paper presented at Annual conference of the American Association of Applied Linguistics, Orlando.

Dewaele, J.-M., Petrides, K. V. & Furnham, A. (2008). The effects of trait emotional intelligence and sociobiographical variables on communicative anxiety and foreign language anxiety among adult multilinguals: A review and empirical investigation. *Language Learning*, *58*, 911–960.

Dewaele, J.-M. & Tsui Shan Ip (2013). The link between Foreign Language Classroom Anxiety, Second Language Tolerance of Ambiguity and self-rated English proficiency among Chinese learners. *Studies in Second Language Learning and Teaching*, *3*, 47-66.

Dörnyei, Z. (2009). Individual differences: Interplay of learner characteristics and learning environment. *Language Learning, 59*, 230-248.

Dörnyei, Z. (2014). Researching complex dynamic systems: 'Retrodictive qualitative modelling' in the language classroom. *Language Teaching*, *47*, 80-91.

Dörnyei, Z. & Ryan, S. (2015). *The psychology of the second language learner revisited.* New York: Routledge.

Ely, C. M. (1995). Tolerance of ambiguity and the teaching of ESL. In J. M. Reid (Ed.), *Learning styles in the ESL/EFL classroom* (pp. 216-217). New York: Heinle and Heinle.

Frost, R. O., Marten, P., Lahart, C. & Rosenblate, R. (1990). The dimensions of perfectionism. *Cognitive Therapy and Research, 14*, 449-468.

Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. London: Edward Arnold.

Gkonou, C. (in press). Towards an ecological understanding of language anxiety. In C. Gkonou, M. Daubney & J.-M. Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications.* Bristol: Multilingual Matters.

Gregersen T. & Horwitz, E. K. (2002). Language learning and perfectionism: Anxious and non-anxious language learners' reactions to their own oral performance. *The Modern Language Journal, 86*, 562-570.

Gregersen, T., MacIntyre, P. D. & Meza, M. D. (2014). The motion of emotion: Idiodynamic case studies of learners' Foreign Language Anxiety'. *The Modern Language Journal, 98*, 574-588.

Gregersen, T., MacIntyre, P. D. & Olsen, T. (in press). Do you see what I feel? An idiodynamic assessment of expert and peer's reading of nonverbal language anxiety cues. In C. Gkonou, M. Daubney & J.-M. Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications.* Bristol: Multilingual Matters.

Gudykunst, W. B. (2005). An anxiety / Uncertainty Management (AUM) theory of strangers' intercultural adjustment. In W. B. Gudykunst (Ed.), *Theorizing about intercultural communication* (pp. 419-457). Thousand Oaks, CA: Sage.

Horwitz, E. K. (1986). Preliminary evidence for the reliability and validity of a foreign language anxiety scale. *TESOL Quarterly, 20*, 559-562.

Horwitz, E. K. (2010). Foreign and second language anxiety. *Language Teaching, 43*, 154-167.

Horwitz, E. K. (in press). On the misreading of Horwitz, Horwitz, and Cope (1986) and the need to balance anxiety research and the experiences of anxious language learners. In C. Gkonou, M. Daubney & J.-M. Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications.* Bristol: Multilingual Matters.

Horwitz, E. K., Horwitz, M. B. & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal, 70*, 125-132.

Kleinmann, H. (1977). Avoidance behavior in adult second language acquisition. *Language Learning, 27*, 93-107.

Liu, M. & Jackson, J. (2008). An exploration of Chinese EFL learners' unwillingness to communicate and foreign language anxiety. *The Modern Language Journal*, *92*, 71-86.

Loewen, S. & Plonsky, L. (2016). *An A – Z of Applied Linguistics Research Methods*. London – New York: Palgrave Macmillan.

MacIntyre, P. D. (1994). Variables underlying willingness to communicate: A causal analysis. *Communication Research Reports*, *11*, 135–142.

MacIntyre, P. D. (1999). Language anxiety: A review of the research for language teachers. In D. J. Young (Ed.), *Affect in foreign language and second language teaching: A practical guide to creating a low-anxiety classroom atmosphere* (pp. 24–45). Boston: McGraw–Hill.

MacIntyre, P. D. (2007). Willingness to communicate in the second language: Understanding the decision to speak as a volitional process. *The Modern Language Journal, 91*, 564–576.

MacIntyre, P. D. (2012). The idiodynamic method: A closer look at the dynamics of communication traits. *Communication Research Reports, 29*, 361-367.

MacIntyre, P. D. (in press). An overview of language anxiety research and trends in its development. In C. Gkonou, M. Daubney & J.-M. Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications.* Bristol: Multilingual Matters.

MacIntyre, P. D. & Charos, C. (1996). Personality, attitudes, and affect as predictors of second language communication. *Journal of Language and Social Psychology, 15*, 3-26.

MacIntyre, P. D. & Gardner, R. C. (1989). Anxiety and second-language learning: Toward a theoretical clarification. *Language Learning, 39*, 251-275.

MacIntyre, P. D. (1991). Language anxiety: Its relationship to other anxieties and to processing in native and second languages. *Language Learning, 41*, 513-534.

MacIntyre, P. D. (1994). The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning, 44*, 283-305.

MacIntyre, P. D. & Gregersen, T. (2012). Affect: The role of language anxiety and other emotions in language learning. In S. Mercer, S. Ryan & M. Williams (Eds.), *Psychology for language learning: Insights from research, theory and practice* (pp. 103–118). Basingstoke: Palgrave Macmillan.

MacIntyre, P. D. & Serroul, A. (2015). Motivation on a per-second timescale: Examining approach-avoidance motivation during L2 task performance. In Z. Dörnyei, P. D. MacIntyre & A. Henry (Eds.), *Motivational dynamics in language learning* (pp. 109-138). Bristol: Multilingual Matters.

McCroskey, J.C. (1970). Measures of communication-bound anxiety. *Speech Monographs*, 37, 269-277.

Mercer, S. & Ryan, S. (2016). Stretching the boundaries: Language learning psychology. *Palgrave Communications, |2*, 16031 Doi: 10.1057/palcomms.2016.31|www.palgrave-journals.com/palcomms1

Muehlfeld, K., Urbig, D., Van Witteloostuijn, A. & Gargalianou, V. (2016). Foreign language anxiety in professional contexts. A short scale and evidence of personality and gender differences. *Schmalenbachs Zeitschrift für betriebswirtschaftliche Forschung*, doi: 10.1007/s41464-016-0007-6

Naiman, N., Fröhlich, M., Stern, H. H. & Todesco, A. (1978). *The good language learner*. Toronto: Ontario Institute for Studies in Education.

Oxford, R.L. (1990). *Language Learning Strategies: What Every Teacher Should Know*. Boston: Heinle.

Oxford, R.L. (2011). *Teaching and Researching Language Learning Strategies*. Harlow, UK: Pearson Longman.

Oxford, R. (in press). Anxious language learners can change their minds: Ideas and strategies from Abnormal Psychology and Positive Psychology. In C. Gkonou, M. Daubney & J.-M. Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications*. Bristol: Multilingual Matters.

Petrides, K. V. & Furnham, A. (2006). The role of trait emotional intelligence in a gender-specific model of organizational variables. *Journal of Applied Social Psychology, 36*, 552–569.

Petrides, K. V., Vernon, P. A., Schermer, J. A., Ligthart, L., Boomsma, D. I., & Veselka, L. (2010). Relationships between trait emotional intelligence and the Big Five in the Netherlands. *Personality and Individual Differences*, *48*, 906-910.

Pervin, L. A. & Cervone, D. (2010). *Personality: Theory and research*. Hoboken, NJ: John Wiley and Sons (11th ed.).

Plonsky, L. & Oswald, F. L. (2014). How big is "big"? Interpreting effect sizes in L2 research. *Language Learning*, *64*, 878–912

Sakurai, S. & Ohtani, Y. (1997). Relations of 'self-oriented perfectionism to depression and hopelessness. *Shinrigaku kenkyu: The Japanese Journal of Psychology, 68*, 179-186.

Sarason, I. G. (1978) The Test Anxiety Scale: Concept and Research. In C. D. Spielberger & I. G. Sarason (Eds.), *Stress and Anxiety* (Vol 5, pp. 193-216). Washington: Hemisphere.

Scovel, T. (1978). The effect of affect on foreign language learning: A review of the anxiety research. *Language Learning*, *28*, 129-142.

Shao, K., Yu, W. & Ji, Z. (2013). An exploration of Chinese EFL students' emotional intelligence and foreign language anxiety. *The Modern Language Journal*, *97*, 917–929

Spielberger, C. D. (1966). Theory and research on anxiety. In C. D. Spielberger (Ed.), *Anxiety and behavior.* New York: Academic Press.

Spielberger, C. D. (1983). *Manual for the State-Trait Anxiety Inventory (Form Y).* Palo Alto, CA: Consulting Psychologists Press.

Swain, M. & Burnaby, B. (1976). Personality characteristics and second language learning in young children: A pilot study. *Working Papers in Bilingualism, 11*, 115-128.

Taguchi, T., Magid, M. & Papi, M. (2009). The Motivational Self System among Japanese, Chinese and Iranian learners of English: A comparative study. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 66-97). Bristol: Multilingual Matters.

Tóth, Z. (2011). Foreign language anxiety and advanced EFL learners: An interview study. *WoPaLP*, *5*, 39-57.

Tucker, R., Hamayan, E. & Genesee, F. (1976). Affective, cognitive, and social factors in second language acquisition. *Canadian Modern Language Review, 32*, 214-226.

Yan, J. X. & Horwitz, E. K. (2008). Learners' perceptions of how anxiety interacts with personal and instructional factors to influence their achievement in English: A qualitative analysis of EFL learners in China. *Language Learning*, *58*, 151-183.

Van der Zee, K., van Oudenhoven, J. P., Ponterotto, J. G. & Fietzer, A. W. (2013). Multicultural Personality Questionnaire: Development of a short form. *Journal of Personality Assessment*, *95*, 118-124.

Wang, T. (2010). Speaking anxiety: More of a function of personality than language achievement. *Chinese Journal of Applied Linguistics, 33*, 95-109.

Watson, D. & Friend, R. (1969). Measurement of Social-evaluative Anxiety. *Journal of Consulting and Clinical Psychology,* 33 (4), 448–457.

[1] The authors argue: "For correlation coefficients, we suggest that *r*s close to .25 be considered small, .40 medium, and .60 large. (…) these results show very clearly that Cohen's benchmarks for small, medium, and large correlations (.1, .3, .5) underestimate and are not appropriate for interpreting those found in L2 research" (p. 889). Effect sizes indicate the "magnitude of the relationship between two variables" and is calculated "by squaring a correlation estimate (r) with the resulting value indicating the percentage of shared variance between the two variables in question" (Loewen & Plonsky, 2016, p. 158)

[2] For a more detailed analysis of the effects of FLCA, combined with foreign language enjoyment, see Dewaele, MacIntyre, Boudreau, and Dewaele (2016).

[3] Personal Report of Communication Apprehension (McCroskey, 1970), Fear of Negative Evaluation Scale (Watson & Friend, 1969), Test Anxiety Scale (Sarason, 1978), State-Trait Anxiety Inventory (Spielberger, l983).

[4] Defined by the chronology of acquisition.

[5] Adaptability, Assertiveness, Emotion perception, Emotion expression, Emotion management (others), Emotion regulation, Impulsiveness (low), Relationships, Self-esteem, Self-motivation, Social awareness, Stress management, Trait empathy, Trait happiness, and Trait optimism.