

Affect and other individual differences

Our understanding of why people differ so greatly in how fast, how well and by what means they learn a second language would be incomplete if we did not consider affect and the multiple roles it plays in L2 learning. Let us return briefly to our French learners from Chapter 7. The most pervasive and startling difference in the two experiences recounted in their books resides with the affective relationship Watson and Kaplan appear to have developed towards the L2. As Table 9.1 illustrates, for Watson learning French felt like an assault to his own self ('alien influences seeping down from above'), whereas for Kaplan French felt like nourishing and welcome transformation of the self ('I was full of French, it was holding me up, running through me').

Learning and using a foreign language poses a threat to one's ego. It makes people vulnerable – particularly grown-ups who are accustomed to function perfectly well in their own language. For example, many beginning L2 learners resentfully report feeling 'infantilized' when they use the L2 (Spielmann and Radnofsky, 2001). At least until high levels of proficiency have been reached, someone who is trying out a new language cannot have good control over what they say in the L2, how they say it and what image of self they are able to project for their interlocutors. Similarly, they may be embarrassed and frustrated by the realization that they are unable to understand interlocutors fully and cannot respond appropriately. Perhaps some

Table 9.1
Affect and L2 learning

Richard Watson (1995)	Alice Kaplan (1993)
... I was appalled to find myself using French forms when I was writing English. French was undermining my very being! My personality was in danger of disintegrating! A great clanging of alarm bells was set off in my deep unconscious, irritated by these alien influences seeping down from above (p. 57)	In June I took the plane home. I could feel the French sticking in my throat, the new muscles in my mouth. I had my ear open, on the plane, for the sounds of anyone speaking French because these were my sounds now. I was full of French, it was holding me up, running through me, a voice in my head, a tickle in my ear, likely to be set off at any moment. A counter language. When I got off the plane the American English sounded loud and thudding – like an insult or lapse of faith (p. 70)

individuals (like Alice Kaplan) are better equipped for coping with these self-threatening experiences. By contrast, other individuals (like Richard Watson) suffer under such circumstances, sometimes with disastrous consequences for ultimately learning or not learning the L2. But where do these differences reside? What can psychologically oriented investigations of affect and L2 learning tell us about such differences?

We will examine these questions in this chapter. Before entering our discussion of affect and L2 learning, you should be warned that, although traditionally affect was thought of as encompassing temperamental and emotional aspects of personality (and perhaps some aspects of volition), psychologists nowadays believe that affect both influences and is influenced by cognition as well. Thus, it is difficult to separate affect from cognition and from conation, and the range of dimensions we will examine in this chapter attests to this challenge.

9.1 PERSONALITY AND L2 LEARNING

Can the personality of L2 learners be implicated in the different affective reactions to learning a new language that they experience? We are not in a position to know, because SLA researchers have only begun to investigate this factor, despite the fact that general psychological research on personality has a long history.

Personality can be conceived of as stable traits or qualities in a person, as more dynamic moods that are related to the cognitive processing of emotions, or even as predispositions that have been learned through social experience. In SLA research, trait personality models have been privileged so far, and three main such models and their concomitant instruments have been used. These are shown in Table 9.2. The first is Eysenck's model of personality, which is perhaps the best well-known and most traditional model. It focuses on temperament and is comprised of three traits: Psychoticism, Extraversion and Neuroticism (this is why it is also known as the PEN model). The three traits have a biological basis. Psychoticism is related to aggressivity and is reflected in testosterone levels. Extraversion is related to cortical arousal measured by sweating, skin conductance and brain waves. Neuroticism is related to reactions in the presence of danger and is reflected in activation thresholds in certain parts of the brain, and measured through heart rate, blood pressure, cold hands, sweating and muscular tension. The model and its instrument (Eysenck and Eysenck, 1964) have been empirically widely validated and theoretically supported, but PEN is by now outdated.

A second well-known model of personality was developed by daughter and mother Myers and Briggs. In a telling reminder that affect and cognition are difficult to separate, this model of personality has a strong focus on cognitive style, or preferred ways of processing information (which we will examine in depth in sections 9.5 and 9.6). Myers and Briggs proposed four traits with two opposite poles: extraversion/introversion, feeling/thinking, perceiving/judging and intuiting/sensing. The Myers-Briggs Type Indicator (MBTI) (Myers and McCaulley, 1985) is a well-known survey instrument, widely used despite important

Table 9.2
Three models of personality employed in SLA research

	Eysenck PEN model	Myers-Briggs Personality Type model	Big Five model
Description	Personality traits		
Propensity to be calm or nervous under pressure; inclination towards embarrassment, pessimism, guilt, low self-esteem	Stability – Neuroticism		Emotional stability
Social interest, energized by social activities; inward interest, energized by solitary activities	Extraversion – Introversion	Extraversion – Introversion	Extraversion
Propensity to tolerance, aggression, Machiavellian behaviour; propensity to be logic, analytical and objective or to focus on values, warmth and relations	Psychoticism	Feeling – Thinking	Agreeableness
Orientation towards or away from goals, closure, plans, organization, norms		Perceiving – Judging	Conscientiousness
Holistic and meaning-driven vs. realistic and detail-driven perception of stimuli, interest in innovation, tolerance for ambiguity		Intuiting – Sensing	Openness to experience
Focus	Temperament	Cognitive style	Personality
Instrument manual	Eysenck and Eysenck (1964)	Myers and McCaulley (1985)	Costa and McCrae (1992)
SLA sample study	Dewaele (2002)	Moody (1988)	Verhoeven and Vermeer (2002)

reservations that have led to researchers using it less over recent years (see Sternberg and Grigorenko, 1997). The MBTI classifies people into 16 personalities, combining the four positive and four negative poles of preferred ways of responding to the world.

Finally, the five-factor model of personality (FFM, also known as ‘the Big Five’) emerged out of converging empirical research during the 1990s and has become the dominant contemporary model of personality in psychology, in part because it has succeeded in combining well all preceding ones. Specifically, it accommodates

Eysenck's and Myers-Briggs' models well, as shown in Table 9.2. The Big Five personality model is commonly measured by the NEO Five-Factor Inventory (NEOFFI) (Costa and McCrae, 1992).

Could it be that certain personality types are more attracted than others into the study of foreign languages? In order to address precisely this question, Moody (1988) administered the Myers-Briggs Type Indicator to 491 students who had chosen voluntarily to enrol in first- and second-year European foreign language classes at the University of Hawai'i, and he compared his results to the patterns obtained for a large normative sample of close to 20,000 general college students published by the developers of the MBTI (Myers and McCaulley, 1985). Moody found that in his sample there was a strikingly large proportion of intuiting and thinking personalities, namely, people who tend to rely on memory and associations, visualize relations, look for the big picture and read between the lines (intuiting) but who also are strong at being analytical and logical (thinking). Why would 'intuitive thinkers' be particularly attracted to studying foreign languages? Moody suggested that these are people who like working with language words and symbols (intuitive) as well as applying grammatical analysis and rules (thinking). Interestingly, Ehrman (1990) also found that intuitive thinkers were the most common personality combination type among 79 students and teachers of non-European languages in the US Foreign Service Institute. Ehrman's finding lends important support to Moody's, because her study involved high-aptitude learners studying so-called hard languages (language students in the US Foreign Service Institute typically have to meet a cut-off score of high aptitude of about 130 score on the MLAT to be able to study so-called 'hard' languages like Japanese, Korean, Thai and Turkish). Perhaps somewhat surprisingly, both Moody (1988) and Ehrman (1990) also found that their participants were equally divided between extraverted and introverted types. Considering that the norm established for the US population on the MBTI gives an imbalance in favour of extraverts (75 per cent versus only 25 per cent introverts), we can suspect that, quite surprisingly, disproportionate numbers of introverts are attracted to the study of a foreign language.

Of course, it would be interesting to find out not only what personality types are attracted to learning foreign languages, but also whether certain personality profiles are associated with higher levels of success in learning those foreign languages. Precisely this direct relationship between personality and attained L2 communicative competence was investigated by Ludo Verhoeven and Anne Vermeer (2002) in a study conducted with 69 sixth-graders enrolled in 12 different schools in the Netherlands. They were second-generation immigrant boys and girls between the age of 11 and 13, who came from working-class families where a language other than Dutch was spoken. They had all been schooled in Dutch since kindergarten. Personality in this more contemporary study was defined in terms of the Big Five model. In this kind of research it is typical to administer a questionnaire like the NEOFFI. In this particular study, however, the teachers were asked to observe closely their pupils and rate them on 30 pairs of judgements on a five-point Likert scale. This strategy appears to have worked well for this study,

judging from the reported high reliability of the instrument and the fact that upon a principal components analysis, the distributions of scores responded neatly to five components of factors that reflected well the five personality traits and explained 73 per cent of the total variance in the 69 children's personality scores. Communicative competence was defined, following the widely accepted model proposed by Bachman and Palmer (1996), as composed of three dimensions: organizational, pragmatic and strategic competence. Each dimension was measured carefully via eight sets of scores derived from six instruments. The researchers conclude that this battery was a successful operationalization of this complex construct, because when they submitted the scores to principal components analysis they patterned rather clearly around the three theoretically posited dimensions.

What did Verhoeven and Vermeer (2002) show, regarding the relationship between personality and ultimate L2 attainment? In essence, for this sample of sixth-graders schooled in L2 Dutch, the personality factor that was most strongly associated with most measures of attained communicative competence turned out to be openness to experience, which accounted for about 15 to 25 per cent of the shared variance. Extraversion was strongly associated only to two sets of scores (monitoring and strategic competence) and conscientiousness was related to the scores on planning of communicative behaviour. Agreeableness and stability, by contrast, appeared to bear no relationship with attained communicative competence.

Findings such as those reported by Verhoeven and Vermeer (2002), if replicated in future research, would indicate that having curiosity in and feeling stimulated by new experiences, and to a lesser extent being gregarious and sociable, may be valuable personality assets in people who want or need to learn a second language. The study also points at the potential importance of openness to experience for the study of individual differences in L2 learning. Interestingly, this component of personality in the Big Five model resonates with lack of ethnocentrism (Gardner, 2001) and with international posture (Yashima et al., 2004). It is, however, a much wider construct that relates to predispositions that allegedly have a range of consequences for cultural innovation, interpersonal relations and social attitudes (McCrae, 1996). It has also been found to be related to sophisticated play behaviour at preschool age and self-confidence during adolescence (Abe, 2005). In adults, Sternberg and Grigorenko (1997) note that openness to experience is also related to the construct of intelligence, and Albert and Kormos (2004) remark that it is also related to measured creativity. Openness to experience, therefore, emerges as a fruitful site for future personality research in SLA, particularly in view of Verhoeven and Vermeer's intriguing and convincing findings.

9.2 EXTRAVERSION AND SPEAKING STYLES

The personality trait of extraversion has always attracted the imagination of L2 researchers, but the results were initially so mixed that they led to disillusionment

and avoidance of research in this area, making extraversion an 'unloved variable' in the L2 field (Dewaele and Furnham, 1999). In the late 1990s, however, SLA researcher Jean-Marc Dewaele and psychologist Adrian Furnham joined forces to champion a revival of L2 work on this variable, arguing for its importance at the crossroads between affect and cognition. They synthesized convincing evidence from L1 studies showing that extraversion and speaking styles are related. Dewaele and Furnham (1999) point at three robust L1 findings in psychology: (a) extraverts have better short-term memory, (b) they are more impervious to stress and anxiety than introverts and (c) they speak more fluently than introverts. How do these predictions connect personality to ultimate L2 learning success? They argue that at least the first two assets should logically translate into a critical advantage when it comes to L2 speech production, namely more available and more efficiently allocated cognitive resources, which alone may explain the third asset of an oral fluency advantage. If extraversion were shown to be conducive to more self-confidence and less anxiety about using the L2, one would expect to find that extraverted people are better able to maintain higher degrees of fluency when speaking in an L2, even under stressful conditions. By implication, one might also expect that extraverts would seek and obtain more frequent and richer opportunities to use the L2 than introverts. All this in turn may lead extraverts to obtain higher grades in second language classrooms and to achieve better learning outcomes in the long run. Dewaele and Furnham furnished evidence supporting their hypotheses in two studies.

Dewaele (2002) administered the Eysenck Personality Inventory to 100 last-year high-school students, approximately half of whom were male and half female, in Belgium. He also measured their reported self-confidence and anxiety levels as well as their recorded class grades. The study is unique in that all participants were multilingual individuals, and thus the relationship between personality and confidence levels in their L2 versus their L3 could be compared. Most of the participants were L1 Dutch speakers, and all had studied French since the age of ten and English since the age of 12 (and about half of them had also studied an L4, German or Spanish). Dewaele found that psychoticism and (to a weaker extent) extraversion and neuroticism were predictors of anxiety for L3 English. The relationships were similar in magnitude for L2 French anxiety, but statistically not significant. (Curiously, overall levels of anxiety were higher for L2 French than for L3 English, which Dewaele interprets to be a function of sociopolitical historical attitudes towards French in Belgium.) This pattern of results should be evaluated with caution because it is not supported in another study by MacIntyre and Charos (1996), who found no evidence for a link between personality and anxiety.

More firm evidence was gleaned in Dewaele and Furnham (2000), who investigated the relationship between extraversion and fluent speech production among 25 L2 French learners in Belgium. They were all Flemish (Dutch L1) university students between the ages of 18 and 21, and they had studied French as a foreign language in high school for six to eight years (for about 1,200 hours). They were rated on their extraversion via the Eysenck Personality Inventory. The researchers then examined seven linguistic qualities manifested in 30 minutes of

speech per learner. They found reasonably sized correlations (in the $r = 0.40$ to 0.55 range) between extraversion and six of the seven variables, and particularly a clear effect for the fluency measure of speech rate. Across the board, the more extraverted a speaker was, the faster speech rate he or she was likely to display. The speech had been elicited under two conditions, a high-stress ten-minute oral exam situation and a more relaxed untimed conversation with the researchers. It turned out that the stress of the situation made a noticeable impact on introverted, but not extraverted, speakers. Specifically, there was suggestive evidence that, under stressful conditions, the introverted participants achieved higher lexical richness and more explicit language but at the expense of engaging in more hesitation-marked lexical searches and in more disfluency. Overall, then, an advantage in fluency for extraverts was counterbalanced by an advantage in complexity and lexical richness for introverts. By comparison, morphological accuracy was the only variable examined by Dewaele and Furnham (2000) that did not yield any correlations with either extraversion or introversion.

9.3 LEARNER ORIENTATION TO COMMUNICATION AND ACCURACY

Related to the findings we have just discussed, Dewaele and Furnham (1999) also make an interesting theoretical link between the personality trait of extraversion/introversion and concern for accuracy versus communication. They summarize the point in the following way:

It is also possible that extraverts and introverts make, consciously or unconsciously, different choices in what has been called the speed–accuracy trade-off ... , especially when they are under pressure. The extraverts, being risk takers ... may opt for more speed in the speech production, whereas the greater cautiousness and fear of punishment of the introverts may cause them to slow down, taking more heed of the maxim ‘be sure brain is engaged before putting mouth into gear’.

(p. 536)

This is an old concern in the field that dates back to the 1970s, when such individual tendencies were first noted and Krashen (1978) coined the labels of ‘monitor underuser’ and ‘monitor overuser’ to characterize them. Monitor underusers tend to be overly focused on communication to the point of miscalculated risk-taking L2 behaviour, whereas monitor overusers tend to be overly mindful of accuracy to the point of anxiety or reticence. Nevertheless, the matter has rarely been pursued systematically and whether the antecedents of such predispositions are indirectly related to personality traits such as extraversion is unknown.

Hungarian researcher Judit Kormos (1999) investigated whether differences in speaking predispositions towards communication or accuracy would be reflected in differences in speech production, and particularly in self-correction moves. Rather than looking at extraversion or some other general personality trait, Kormos

devised a questionnaire to get at each speaker's concern for communicating their message either fluently or accurately and for avoiding mistakes. She recruited 30 L2 English user participants from Hungary, almost all of them females. Of them, ten were secondary-school students aged 16 to 18 with pre-intermediate proficiency, ten were college first-year English majors aged 18 to 22 with minimal exposure to second language contexts but with advanced or upper-intermediate proficiency, and the last ten were elementary-school teachers who formerly taught Russian and were in the process of being retrained to teach English, and whose proficiency and ages ranged widely. After taking a proficiency test and completing the brief questionnaire, the participants were asked to do a five-minute role-play activity with the researcher, the task being to reserve a private room in a restaurant. Following the recording of this activity, each participant did a retrospective interview in which they explained choices and perceptions as they listened to their speech, which later helped the researcher identify instances of self-correction.

Based on their responses on the questionnaire, Kormos assigned the 30 speakers to the category of: monitor underusers, who seemed strongly oriented towards communication; monitor overusers, who were strongly concerned with accuracy; and average monitor users, who did not seem to hold strong attitudes towards either communication or accuracy. After accounting for proficiency differences, speaking styles were found to matter only in terms of fluency and one of seven measures of self-correction. Specifically, monitor overusers clearly spoke less fluently and rephrased themselves more frequently, looking for a better way to express themselves. However, they did not self-correct lexical or grammatical mistakes more frequently overall than the other groups. This observation resonates with the results presented by Dewaele and Furnham (2000). Although Kormos's findings were somewhat disappointing, given that only two of eight measures yielded the theoretically posited connections, it is possible that a relationship between personality and speaking style, on the one hand, and monitoring behaviour during speech production, on the other, would indeed emerge in larger-scale studies. That said, neither Kormos (1999) nor Dewaele and Furnham (2000) reported effects for personality factors in terms of accuracy. Thus, another plausible prediction is that personality and learners' concern for either communication or accuracy may have an impact on speaking style by triggering trade-offs between fluency and complexity, rather than fluency and accuracy. The latter, however, is the possibility usually favoured in information-processing theoretical predictions, as in the earlier quote by Dewaele and Furnham (1999) and in the work of Skehan (see, for example, Skehan and Foster, 2001).

Relationships between personality and L2 learning are intriguing and have only begun to be explored by SLA researchers. In the end, however, it would be misguided to imagine that some mysterious inherent property of people's predispositions affects how fast and how well they can learn languages. Rather, personality traits such as openness to experience, extraversion, concern towards communication or accuracy, and so on, influence goals and actions, and it is then these goals and actions that have an impact on eventual achievement. For example, intellectually curious and interpersonally inclined people are likely to seek and have

added exposure to (and interaction in) the L2, which in turn may enhance their chances to develop faster and better towards full L2 communicative competence. That is, personality is related to L2 achievement in as much as it shapes the types of experience people seek or avoid.

9.4 FOREIGN LANGUAGE ANXIETY

The variable of anxiety has been mostly studied in SLA in its own right, rather than in connection with personality. Simply put, some individuals report experiencing intense feelings of apprehension, tension, and even fear, when they think of foreign languages. As MacIntyre and Gardner (1994) note, this propensity to feel anxious is specific to foreign language learning, like the consistent apprehension some college students report in relation to situations that call upon the use of mathematics, statistics or public speaking. High-anxiety foreign language students exhibit many symptoms, but the most common ones are two: freezing up when asked to say something in the L2 in front of the class, and blanking on the right answers during a language test despite having studied hard and even knowing the answers.

The two researchers that have been most central in advancing our knowledge about language anxiety are Elaine Horwitz in the United States and Peter MacIntyre in Canada. Although both research programmes are compatible and have produced convergent results, it is useful to highlight some differences. Horwitz has focused on classroom-related types of anxiety experienced by foreign language learners who may not have many opportunities to use the L2 outside the instructional setting, and her explorations have concentrated on psychological states and self-beliefs. By way of contrast, MacIntyre has emphasized communicative anxiety as rooted in direct contact with L2 speakers in second language settings, and he has pursued explanations that emphasize social attitudes and behavioural communication correlates. As we will see in section 9.5, these latter emphases have eventually given rise to the investigation of willingness to communicate (WTC) as the main construct, to which anxiety is only a contributing force or antecedent.

The best well-known measure of anxiety is the Foreign Language Classroom Anxiety Scale (FLCAS), developed by Horwitz and colleagues (Horwitz et al., 1986). It comprises 33 five-point Likert scale items, mostly statements about anxiety when speaking or producing the language and more general apprehensive attitudes towards foreign language learning. Examples of these items are: 'Even if I am well prepared for language class, I feel anxious about it' and 'I always feel that the other students speak the foreign language better than I do'. Another instrument is the Input, Processing and Output Anxiety Scales (IPOAS), developed by MacIntyre and Gardner (1994). It includes 18 five-point Likert scale items specifically related to anxiety caused at the input stage of encountering aural or written input ('I get flustered unless French is spoken very slowly and deliberately'), the processing stage of comprehending messages and figuring out words and meanings ('I am anxious with French because, no matter how hard I try, I have trouble understanding it') and the output stage of producing evidence of what one has

learned and can do in speaking or writing ('I may know the proper French expression but when I am nervous it just won't come out'). Based on the findings reported by MacIntyre and Gardner (1994) and the validation study conducted by Bailey et al. (2000), the two instruments correlate with each other acceptably and are two equally good alternatives to measure foreign language anxiety.

Scores on the FLCAS and the IPOAS have been found to be moderately associated with course grades, suggesting that high-anxiety students expect and do indeed receive lower grades in their foreign language courses than do low-anxiety students. In addition, substantial negative correlations in the order of $r = -0.45$ to $r = -0.65$ (that is, 20 to 40 per cent explained shared variance) have been obtained across studies between anxiety scores and scores on direct measures of L2 proficiency, whether global grammar tests or tasks requiring speaking, listening, writing and vocabulary learning. This is a robust indication that high, debilitating levels of anxiety do interfere with academic achievement in foreign language classes. Besides lower achievement, several other more subtle effects experienced by overly anxious students have been uncovered. These include slower speed in their learning and processing of L2 materials, a tendency to underestimate their true L2 competence and a propensity to engage in risk-avoiding behaviours, such as speaking less and attempting less complex messages (Steinberg and Horwitz, 1986; MacIntyre and Gardner, 1994; MacIntyre et al., 1997).

Where does foreign language anxiety originate? Recent studies underscore the importance of self-perception and self-concept. For example, Onwuegbuzie et al. (1999) found that among 210 university students enrolled in foreign language courses in the US, anxiety levels were associated to low sense of self-worth and low perceptions of their own general academic ability. For people who may have low self-esteem to begin with, feelings of vulnerability in L2 learning situations may be particularly intense. If the threat is unmanageable and anxiety rises, it will contribute to these students' poor performance in situations where they feel evaluated and anticipate failure.

Counterproductive beliefs about language learning (nicely explicated in Horwitz, 1988) can also contribute to foreign language anxiety in a different way, namely by leading to high levels of disappointment and intense sense of failure. Misguided myths about language learning include that one should be able to study vocabulary and grammar and then speak or write without mistakes, that learning a foreign language well means being able to pronounce it like a native speaker, or that a foreign language can be learned in two years of college. In one of the rare published anxiety studies carried out outside North America, Gregersen and Horwitz (2002) found that these perfectionist attitudes and unforgiving expectations strongly characterized the four most anxious students in a sample of 78 EFL second-year students in a Chilean university. For example, one of these high-anxiety students said (p. 567):

- (1) I am bothered a little [about my errors] because I get nervous, and I think that the other person thinks that I don't know how to speak. It happens a lot. I try to pronounce the best I can, and when I try to pronounce better, my

pronunciation gets worse, because I get flustered. That is, I get flustered because I sometimes pronounce words badly. I try so hard to pronounce perfectly.

These concerns for accuracy resonate with Kormos's (1999) investigation of accuracy- versus communication-oriented learners examined in section 9.3. It is important to note, however, that perfectionism does not always need to have a negative effect. Thus, for example, Purcell and Suter (1980) found that concern for having an excellent pronunciation among their sample of 61 international students learning English, all post-pubertal learners, was one among the four best predictors of ratings of L2 pronunciation (the other three factors were the L1 background, aptitude for oral mimicry, and length of L2 residence). Elliott (1995) found that the same concern to develop a native-like accent was the most significant variable positively correlating with L2 pronunciation among college-level L2 Spanish students. Similarly, the exceptional learners whose outstanding pronunciation made them pass for native speakers of English in Bongaerts (1999) and of German in Moyer (1999) reported that they were highly motivated to sound like native speakers (and, notably, they had also received high-quality instruction specifically on pronunciation issues). These findings remind us that some degree of tension can help people invest extra effort and push themselves to perform better. This is what we would call facilitating anxiety. As MacIntyre and Gardner (1994) note, anxiety feelings reach debilitating levels only when anxious students engage in self-deprecatory and negative thoughts that detract from concentration and disperse mental effort that should normally be invested in the foreign language learning task at hand.

9.5 WILLINGNESS TO COMMUNICATE AND L2 CONTACT

Adopting a more recent social psychological tradition, anxiety has begun to be studied under the wider construct of willingness to communicate (WTC), which was developed in the field of communication in the 1980s and was imported into SLA a decade later by Canadian researchers Richard Clément, Peter MacIntyre and their associates. In the first language, WTC is associated to a complex of personality sub-traits such as introversion, shyness, apprehension of communication and reticence. WTC in the L1 is thought to systematically predict how inclined people are to initiate communication, when they have a free choice to do so, across situations and interlocutors (e.g. face-to-face, in writing and in technology-mediated environments). In the L2 literature WTC has been called 'the most immediate determinant of L2 use' (Clément et al., 2003, p. 191), and its independence from WTC in the L1 has been firmly established by Baker and MacIntyre (2000). What are then the antecedents of L2 WTC, if not L1 WTC? It turns out that WTC in the L2 is predicted to a large extent by L2 communicative confidence and to a lesser extent by L2 attitudes.

An individual's **communicative confidence** in the L2 greatly contributes to her or

his WTC in the L2. Across studies, the correlations observed between these two variables have been in the range of upper 0.60s all the way to high 0.80s. The initial work of Clément, in particular, was instrumental in showing that L2 communicative confidence can be best measured by eliciting learner responses tapping two distinct affective responses when they use the L2: how relaxed or nervous they are (**anxiety**, an affective variable) and how competent or incompetent they feel (**self-perceived competence**, a cognitive self-evaluation variable). In turn, Clément et al. (2003) have shown that these positive or negative feelings of anxiety and competence will be related to the frequency and (even to a greater extent) to the perceived quality of past L2 contact (e.g. in the family, neighbourhood, workplace or school), in a pattern where frequency and quality influence each other. In other words, the two traits of communicative anxiety and self-perceived competence, while stable, are shaped by past experiences through contacts with L2 speakers, and both contribute to the degree of L2 communicative confidence.

In addition, it appears that the two antecedents of L2 communicative confidence take a different weight in explaining WTC depending on the learning context. Namely, anxiety will be more predictive of L2 confidence in settings where use of the L2 is high, such as second language and immersions contexts, whereas in settings where use of L2 is low, such as foreign language contexts, it is perceived communicative competence that will be more related to L2 confidence. WTC work carried out in such different settings as Canada (Baker and MacIntyre, 2000) and Japan (Yashima, 2002) converges to this same conclusion. Baker and MacIntyre (2000) offer the following explanation. Speakers in a high-use L2 environment have typically developed higher communicative competence and are relatively accustomed to successful experiences. Therefore, any salient negative experience is more intensely lived and remembered. In addition, the communication demands they face are more complex and entail higher stakes than in low-use L2 environments. All this leads to anxiety contributing more strongly to their formed L2 communicative confidence. On the other hand, speakers in a low-use L2 environment are still developing their communicative competence, their contact with L2 interlocutors is rare and the communicative demands placed on them are less complex and less consequential to their daily lives. Thus, they are likely to worry more intensely about how well they believe they will be able to function in the L2 with their incipient abilities and less about seldom lived experiences of contact (positive or negative) with speakers of the L2. All this explains why their perception of current communicative competence contributes more strongly to their formed communicative confidence than anxiety.

Although WTC is about intentions, the point of understanding intentions is to help predict behaviours. Yet, the link between WTC in the L2 and frequency of communicative behaviour has been difficult to establish. No SLA study has attempted to study WTC responses vis-à-vis actual observation of communicative behaviour, but the few studies that have attempted to look at the relationship of WTC with self-reported frequency of L2 communication have yielded only tenuous correlations in the $r = 0.20$ order. This association appears small by comparison to the correlation values in the range between $r = 0.45$ and $r = 0.60$ which are typically

found in psychology studies that investigate the link between strength of intention and goal achievement (see Sheeran, 2002; Gollwitzer and Sheeran, 2006).

Despite the weak quantitative results, **self-reported contact** with L2 speakers appears to be an important factor in WTC because it plays reciprocal roles as antecedent and consequence of WTC. Contact is also mediated by L2 attitudes formed in particular learning contexts and sociocultural milieus. Thus, Clément et al. (2001) suggest that in contexts of low L2 use (e.g. unilingual contexts in Canada or foreign language contexts elsewhere), actual L2 competence and L2 self-confidence are weak (and therefore WTC levels are low as well) because opportunities to use the L2 are low. These researchers predict that under such premises empathy and affinity for the minority L2 group may help encourage learners to seek more L2 contact, which in turn may boost their confidence. And indeed in the data produced by Clément et al. (2001), stronger identification levels went hand in hand with higher self-reported frequencies of L2 contact among such low-L2-use speakers. By contrast, identification with the L2 group ceased to be important in explaining reported frequency of L2 use for high-L2-use speakers (who had also developed advanced levels of competence and were more generally confident).

There is other evidence of the reciprocal relationship between contact, self-confidence and attitudes, even in foreign language settings, where L2 use is low and is likely to involve more distant activities such as meeting tourists, watching TV channels in the L2, and so on. For example, Dörnyei and Csizér (2005) found that the more frequent the L2 contact reported by their Hungarian respondents, the more generally self-confident of their communicative competence the students were likely to be. In the low-L2-use context of learning English as a foreign language in Japan, the construct of international posture developed by Tomoko Yashima and her colleagues is the closest equivalent to 'identification' or empathy for L2 members (see section 8.5). Yashima et al. (2004) found that students with a high score on the international posture were somewhat more willing to engage in communication in the L2, although the direct contribution of international posture to WTC was small ($r = 0.27$).

In sum, it has been well established that WTC in the L2 is largely predicted by L2 communicative confidence (which itself is predicted by anxiety and self-perceived competence) and to a lesser but nevertheless considerable extent by L2 attitudes. Such attitudes are shaped by the frequency and quality of past L2 contact but they also help shape willingness to seek and engage in future L2 contact. Whether WTC develops in second or foreign language contexts also influences the relative importance of antecedents and consequences. In light of these findings, change in WTC becomes a theoretical necessity, a function of increased proficiency and wider communication experiences accrued through participation across different contexts that foster diverse circumstances for L2 use. For example, the shape of WTC may change as learners move from one learning context to another, as they gain substantial competence as a result of myriad voluntary or involuntary changes in their life circumstances that are related to work, immigration, marriage, and so on, or as they learn yet another language that alters the sta-

bility of WTC-related factors previously associated with the first learned L2. Future studies will hopefully elucidate how WTC and its related antecedents and consequences can change as a function of context and time. (You can compare this social psychological view of contact and willingness to communicate with the sociocultural view of access and participation that will be presented in Chapter 10, section 10.14.)

9.6 COGNITIVE STYLES, FIELD INDEPENDENCE AND FIELD SENSITIVITY

In Chapter 7 we examined the notion that cognitive abilities (that is, people's aptitude profiles and complexes) influence their capacity for learning languages with ease. But people do not only differ in their cognitive abilities. It is a well-known fact in psychology that they also differ in the ways they prefer to put their cognitive abilities to use. For example, different people hold different 'typically preferred modes of processing information' (Sternberg and Grigorenko, 1997, p. 700) or ways in which they feel comfortable when perceiving, remembering and using information for problem solving and for learning. Such preferences are known under the terms 'cognitive styles' or 'learning styles'. Cognitive and learning styles are neither good nor bad, but simply bipolar dimensions (e.g. holistic vs analytic; reflective vs impulsive; field-dependent vs. field-independent), with potential strengths and weaknesses on both extremes, and sometimes with mixed characteristics on sub-dimensions along multiple style continua. In this section we will examine field dependence and independence (FDI), which is the cognitive style with the longest research tradition in SLA. In section 9.7 we will look at more encompassing models that attempt to explain cognitive style profiles involved in L2 learning.

Field dependence/independence is a construct imported to SLA from psychology. It is usually measured via the Embedded Figures Test (Gottschaldt, 1926), in which simple forms are hidden in larger figures and the mean time it takes to discover those forms yields a score. The higher the score (i.e. the less time spent), the more field independent a person is. In an oft-cited L2 study, Chapelle and Green (1992) examined 32 correlations between the embedded figures test and various measures of L2 proficiency yielded across ten studies published in the 1970s and 1980s. They found that only a few of those correlations were statistically significant in the subset of primary studies where some other cognitive ability (often mathematic ability and language aptitude) had been measured and partialled out. Thus, they noted that a considerable challenge in researching FDI is to tease out ability on the Embedded Figures Test from other non-verbal abilities. Nevertheless, an inspection of the data provided by Chapelle and Green in their Table 1 shows relatively consistent findings. The median of statistically significant correlations is about $r = 0.35$, whether or not other factors are partialled out. This points at a modest but non-spurious relationship between FDI and L2 proficiency.

Another challenge resulting from measuring FDI via the Embedded Figures Test alone, as noted by Sternberg and Grigorenko (1997), is that the performance

elicited is more readily interpretable as an ability than as a cognitive style, yielding as it does a score that reflects a 'higher is better' evaluative assumption (as when we look at an IQ score of 100 or an MLAT score of 135). The valuation, furthermore, is clearly biased in favour of the field-independent pole in both psychology and SLA. The theoretical ammunition for a truly bipolar interpretation is nevertheless obvious: The ability to cognitively restructure spatial information (e.g. by spotting simple forms while ignoring the larger figures which hide them) is predicted to be high for field-independent profiles but low for field-dependent ones, whereas an interpersonal orientation is predicted to be low for field-independent, but high for field-dependent profiles. Consequently, as Canadian psychologists Johnson et al. (2000) argued, in the context of L2 learning field independence may be related to better success with detecting patterns in the L2 input, dealing with grammatical rules and being able to self-monitor during L2 production, whereas field dependence may facilitate learning holistically from input via memorization as well as learning through communication with others by picking up pragmatic and social cues. When they inspected oral performance data elicited from 28 L1 English students and 29 ESL students at a Canadian university, they did find evidence that field dependence was associated with higher communicative abilities. They speculated that field dependence may foster the holistic learning of patterned formulas and expressions that contribute to fluent communicative expression.

Ehrman and Leaver (2003) have addressed the challenge of investigating FDI as a truly bipolar cognitive style in a different way. They have proposed two separate labels that help unpack the two poles of the FDI construct as two distinct constructs: field independence and field sensitivity. They define field independence as the ability to see the trees in the forest, as it were, and to detect important information and separate it out from its context, whereas they reserve the term 'field sensitivity' to denote the ability to employ 'a floodlight to maintain awareness of the entire forest, registering the presence of all the flora, fauna, and moment-to-moment changes in the environment' (p. 397). According to Ehrman and Leaver, the best language learners can learn new material well both in and out of context and therefore can be expected to score high on field independence as well as on field sensitivity.

9.7 LEARNING STYLE PROFILES

A plethora of other learning styles has been researched in SLA with varying degrees of small success. In Australia, Ken Willing (1988) first interviewed 40 teachers and 25 adult ESL learners and later surveyed 517 more learners, using learning styles models and scales developed in psychology and made up of four learning profiles: convergers, divergers, accommodators and assimilators. The findings led to a number of rich recommendations for immigrant education policy and for programme, staff and materials development. Because of the practical nature of the project, however, this study has regrettably had little theoretical impact on other SLA efforts. In the United States, Joy Reid (1995) created an instrument designed to

tap the preferred sensory learning styles of ESL and EFL learners, such as visual, auditory, kinaesthetic/tactile and group/individualistic orientation towards learning. However, subsequent attempts by other researchers to validate the instrument psychometrically have failed.

The most promising model of language learning style has been developed by Ehrman and Leaver (2003), based on years of field pilots with adult language students in the US Foreign Service Institute (see Ehrman, 1990, 1998, cited in Chapter 7, section 7.14 and in 9.1). It consists of a binary continuum, the **synopsis–ectasis** dimension. According to these researchers, ‘the distinction ... addresses the degree of conscious control of learning desired or needed’ (p. 395). Synopsis refers to the preference to rely on holistic, at-a-glance perception of information. Synoptic learners thrive with subconscious learning approaches because they are intuitive learners. ‘Ectasis’ is a neologism coined by the researchers from the Greek word *ectasis*, meaning ‘stretching out’. It refers to the preference to rely on detail and system when processing new information. Ectenic learners thrive when they can exercise conscious control over their learning, because they are methodic learners. Ehrman and Leaver note that synopsis is related to right-hemisphere-dominant learners and ectasis to left-hemisphere-dominant learners. The continuum is measured via ten subscales (for a total of 30 items – three per scale), most of which are well grounded in previous literature. Particularly interesting in the proposed model is the rich characterization of ways in which information may be processed. In particular the six scales outlined in Table 9.3 are interesting because, arguably, they might be related to the differential ability to notice new features of the L2 (Schmidt, 1995; see Chapter 5), an ability that is also posited to matter a great deal in new conceptualizations of aptitude (see Chapter 7, section 7.11).

Table 9.3
Six of the ten dimensions in the Ehrman and Leaver (2003) Learning Style Model

Learning style	Definition
<i>random–sequential</i>	How information is structured (by internal or systematic and planned criteria)
<i>holistic–specific</i>	The level of attention paid to detail during processing
<i>gestalt–analytic</i>	The level of analysis done on information during processing
<i>global–particular</i>	The top-down or bottom-up preferences in attentional direction while processing new material
<i>levelling–sharpening</i>	Whether learners prefer to store and recall information in memory by relying on loosely merged episodic memory and looking for commonalities, or by relying on highly detailed and differentiated, factual long-term memory encodings
<i>impulsive–reflective</i>	The speed of processing

In his authoritative evaluation of this and other SLA work on cognitive and learning styles, Dörnyei (2005) notes that Ehrman and Leaver's (2003) framework holds great promise, but he also warns that it will need to be tested and modified across a range of contexts and learner populations.

9.8 LEARNING STRATEGIES

If styles are preferred ways of processing information, strategies are conscious mental and behavioural procedures that people engage in with the aim to gain control over their learning process. Kaplan (1993), our successful French learner, provides a good illustration in the following excerpt, where she remembers using an intricate web of vocabulary learning strategies while in boarding school in Switzerland, at age 15 (p. 48):

- (2) I always had five or six new words on a personal in-progress-list. Each time I heard one of the words on my list, I would notice the context and try to figure out the meaning. When I thought I had the meaning I would wait for the word to come up again, so I could check if my meaning was still right. Finally, I'd try the word out to see if a strange look came over the face of the person I was talking to. If it didn't, I knew I was home free. I had a new word.

It is worth reiterating that with learning strategies, as with other individual difference variables, the boundaries between cognition and affect blur. This is particularly true because when humans want to exert better control over their thoughts and actions they strategize about their emotions as much as about their cognitive and conative processes.

The first empirical studies of L2 learning strategies appeared in the mid-1970s, in a line of work that soon became known as 'the good language learner' research. Among the most classic citations from these initial years is a monograph by that title, written by a team of Canadian researchers (Naiman et al., 1978). The team's goal was to understand any and all factors that might help explain why some people are particularly successful in their quest to master an L2, whereas many are not. These early findings quickly indicated that beyond natural language ability (i.e. aptitude) and personal commitment to learning (i.e. motivation), these 'good' learners were also characterized by a high degree of active involvement in their own learning processes. Joan Rubin (1975) summarized the first-generation findings in six key attributes of good learners, all related to strategic behaviour:

- they are good guessers
- they pay analytical attention to form but also attend to meaning
- they try out their new knowledge
- they monitor their production and that of others

- they constantly practise
- they cope well with feelings of vulnerability for the sake of putting themselves in situations where they communicate and learn.

You will notice that all six attributes of strategic behaviour are nested in Kaplan's description of her vocabulary learning strategy use in (2).

Building on the success of these initial efforts, many SLA researchers continued to invest great energy into studying L2 learning strategies in the 1980s. These efforts gave way to two separate but essentially compatible traditions in the United States (Chaudron, 2006): the observation-based research programme conducted by Anna Chamot and colleagues, and the questionnaire-based research on learning strategies developed by Rebecca Oxford and colleagues.

A series of descriptive studies conducted by O'Malley, Chamot and colleagues in the mid-1980s were the first ones to attempt to document the use of learning strategies observationally and behaviourally and in connection with specific language task types. The research methodology rested on the use of structured interviews in which small groups of three to five students were asked to recall or imagine strategies they would use in the context of hypothetical L2 tasks and situations. In some of the studies, think-aloud verbal accounts while performing actual L2 tasks were also used. The studies encompassed ESL as well as foreign language learning and they included students of beginning, as well as intermediate, levels of proficiency enrolled in both high-school and college settings.

The most important of the studies was a three-year project involving three successive phases and summarized in O'Malley and Chamot (1990). The cross-sectional phase confirmed previous strategy findings but also revealed some differences between the high-school foreign language Spanish and the college foreign language Russian samples, apparently related to the tasks that were typical of the respective curricula in each setting. The longitudinal phase focused on documenting the development of strategy use over a school year by 13 high-school students of Spanish and six college students of Russian. The findings confirmed and expanded those of previous studies and led to the generation of an exhaustive list of learning strategies, classified into the three categories of cognitive, metacognitive and social-affective strategies (see O'Malley and Chamot, 1990, pp. 137–9). However, no clear patterns were found in terms of longitudinal change per se. During the third, strategy training phase, three Russian instructors and one Spanish teacher were observed teaching strategies on nine occasions over two semesters. The training results were largely disappointing. Overall, the research programme contributed by Chamot and her colleagues offers the following sobering insight: the types of strategy used by L2 learners can be determined to a great extent by course objectives and course syllabus, by students' motivation for learning the language and by the task itself.

Oxford's prolific strategy work is based on a long inventory and an accompanying instrument, the Strategy Inventory for Language Learning (SILL) (Oxford, 1990). The SILL elicits levels of reported strategy frequency via five-point Likert scales. Six

types of strategy are posited in the model: affective (e.g. 'encouraging oneself when afraid to speak'), social (e.g. 'practising the L2 with other people'), metacognitive (e.g. 'having clear goals for improving one's own skills', 'noticing one's own mistakes'), cognitive (e.g. 'guessing from context', 'writing notes'), memory-related (e.g. 'connecting word sounds with a mental image or picture') and compensatory (e.g. 'using circumlocutions'). This classification is essentially compatible with the three types proposed by O'Malley and Chamot (1990), a conclusion supported by the findings reported by Hsiao and Oxford (2002) in their factor analysis of SILL responses from 517 Taiwanese college-level EFL students. Oxford's survey approach to L2 learning strategies has been frequently used. This popularity may be in part explained by the convenience of a questionnaire with good psychometric properties that makes it easy for other researchers to adopt the framework. For example, Peacock and Ho (2003) used the SILL in a large-scale study in Hong Kong. By surveying 1,006 university students and further interviewing 48 of them, they were able to uncover some differences in the L2 learning strategy use related to academic discipline, age and gender.

Two concerns have been repeatedly raised regarding the value of studying L2 learning strategies as a potential source of differential L2 success: contextualization and theorization. The need for a more contextualized understanding of strategies became particularly clear in the early 1990s, when a few researchers turned to the in-depth case study of 'unsuccessful' learners (e.g. Vann and Abraham, 1990) and found that these students often used as many strategies as so-called 'good' language learners, just not quite in a manner that could be considered sophisticated or appropriate to the tasks and goals at hand. Furthermore, when Oxford and Nyikos (1989) surveyed 1,200 foreign language learners in US universities, they corroborated the warning by Chamot and colleagues that many reported strategies are linked to the pressures of courses and curricula, for example, driven by tests and grammatical discrete-point learning goals that still dominate much foreign language college instruction. In light of such findings, the importance of taking into account the curricular context when investigating L2 learning strategies has been underscored by other researchers. It may also be important, as MacIntyre and Noel (1996) tried to do, to explore empirically learner perceptions of difficulty and usefulness of particular strategies across specific contexts of use.

Other important but less heeded observations regarding context were contributed by Politzer and McGroarty (1985), who investigated the reported learning behaviours of 18 Asian and 19 Hispanic ESL graduate students vis-à-vis their proficiency gains over an eight-week intensive course in California. They found consistently lower self-reported levels of strategy use in the Asian sample by comparison to the Hispanic sample, but no relationship between strategies and actual proficiency gains across the two groups. They noted that many of the strategies in their questionnaire referred to behaviours that may be culturally inappropriate for non-Western students, such as asking the teacher or other interlocutors to repeat when something is not understood, or correcting fellow students when they make mistakes. Politzer and McGroarty conclude their study by

suggesting that what researchers classify as ‘good’ or ‘successful’ L2 learning behaviours may actually suffer from rather ethnocentric assumptions (p. 119). From a sociocultural perspective (see Chapter 10), the appellation of ‘good’ language learner has other shortcomings that are eloquently exposed by Norton and Toohey (2001).

The need to theorize the construct of ‘strategic behaviour’ has been voiced particularly insistently from a social psychological perspective by both Peter Skehan and Zoltán Dörnyei over the years (see, for example, Dörnyei and Skehan, 2003). They have noted that, in the end, L2 learning strategic behaviour cannot and should not be reduced to a taxonomy of observed heuristics and reported mental processes (O’Malley and Chamot, 1990) or an inventory of self-reported frequencies of strategy use (Oxford, 1990). The solution to theorizing learning strategies may have been found by Dörnyei (2005), who has pointed at self-regulation theory as a framework that offers SLA researchers a theoretically principled way to reconceptualize their thinking about strategic behaviour during L2 learning. We conclude our chapter with a brief examination of this promising direction.

9.9 THE FUTURE PROMISE OF AN ALL-ENCOMPASSING FRAMEWORK: SELF-REGULATION THEORY

The starting point of self-regulation theory is that human endeavours are always goal-directed, intentional, effortful and voluntary (Boekaerts et al., 2006). In the face of multiple (often competing and almost always hierarchically interconnected) goals and ensuing environmental challenges, humans are capable of achieving the ends they choose to pursue because they are able to self-regulate their behaviour. Self-regulation involves *creative* and *conscious* efforts that address many facets of action control, including ‘selfdirected problem analysis, commitment building, progress evaluation, and long-term maintenance’ (Karoly et al., 2005, p. 302). Moreover, it is not only actions and thoughts but also feelings that are self-regulated, since coping with emotions and negative affect is crucial when goals become difficult or even unattainable. Thus, one novel advantage of self-regulation theory is that cognition and affect can be studied together in principled ways. Another strength is that multiple methods are used, and the traditional questionnaire data are triangulated with more qualitative data elicited via interviews, observation, diaries and even real-time computer-based task simulations (Karoly et al., 2005). The relevance of self-regulation theory to SLA and individual differences is clear: learning another language poses a high-anxiety and complex challenge that demands cognitive as well as affective self-regulation, and individuals differ in their capacity to self-regulate.

Focusing on the area of volitional action control, Tseng et al. (2006) have developed the Self-Regulatory Capacity in Vocabulary Learning Scale (SRCvoc), an instrument with 20 six-point Likert scale statements that denote greater or lesser creative effort to control one’s own actions in vocabulary learning. Note that this

Table 9.4

Self-Regulatory Capacity in Vocabulary Learning Scale illustrated (Tseng et al., 2006)

Dimensions of volitional action control	Item illustration
<i>Commitment control</i> : Keeping goals in focus	'When learning vocabulary, I persist until I reach the goals I make for myself'
<i>Metacognitive control</i> : Minimizing procrastination or distraction and maximizing concentration	'When learning vocabulary, I think my methods for controlling my concentration are effective'
<i>Satiation control</i> : Avoiding boredom or impatience and enhancing interest	'During the process of learning vocabulary, I am confident that I can overcome any sense of boredom'
<i>Emotion control</i> : Overcoming negative moods and affirming emotional stability	'When I feel stressed about vocabulary learning, I know how to reduce this stress'
<i>Environmental control</i> : Eliminating negative environment elements and maximizing positive ones	'When I am studying vocabulary and the learning environment becomes unsuitable, I try to sort out the problem'

emphasis is quite different from the emphasis on sheer frequency of strategy use in much past research. The SRCvoc instrument consists of five subscales comprising four items each, as illustrated in Table 9.4.

Based on the responses from a sample of 172 Taiwanese students in their last year of EFL in high school, the researchers evaluated the SRCvoc favourably. They noted that its reliability is acceptable and the outputs of confirmatory factor analysis support the five-subscale structure, although the last subscale of environmental control was somewhat less clearly useful.

Because this line of research has just begun to unfold in SLA, it remains to be seen if it will reach the sophistication and wealth of insights that self-regulation theory has attained in other fields (see Baumeister and Vohs, 2004). It certainly is a welcome change of direction in social psychologically oriented SLA research, in that the self-regulatory approach allows for the combined study of motivation and strategic behaviour, and of cognition and affect, under a single theoretical framework.

9.10 SUMMARY

- Learning and using an L2 poses a threat to one's ego and makes people vulnerable. Under such conditions, the affective reactions developed by individuals towards the L2 and their own L2 speaking and L2 learning self can vary. Some people may be psychologically better equipped than others for managing affective reactions during L2 learning.

- Certain personality traits may favour interest in the study of an L2 and increase the likelihood of success. It appears that intuitive thinkers are likely to be attracted to the study of foreign languages, perhaps because they enjoy the intuiting or holistic demands of working with words and meaning symbols as well as the thinking or analytical demands of grammatical analysis. Rather unexpectedly, many introverts are also attracted to the study of foreign languages.
- Openness to experience has emerged in recent research as a potentially important personality variable that may be auspicious for achieving high levels of success in L2 learning. This personality trait may be related to lack of ethnocentrism, self-confidence and creativity, among other qualities that may be important for L2 learning.
- Some personality traits (extraversion) and speaking predispositions (concern for communication versus accuracy) appear to be related to speaking styles that are most directly measurable via fluency effects. Introverts and L2 speakers concerned for accuracy produce less fluent speech, searching for better lexical terms and rephrasing themselves more. These speaking styles are traditionally explained as fluency–accuracy trade-offs, but the lack of actual accuracy or self-correction effects in the available studies suggests that they may in fact be better conceived of as fluency–complexity trade-offs instead.
- Foreign language anxiety is a measurable, L2 specific affective variable that is associated with a number of symptoms, including lower grades, lower proficiency performances, difficulty with processing and learning new L2 material, reticence and L2 risk-avoiding behaviours. Its roots can be found in overall low self-concept regarding general academic abilities and in unrealistic beliefs about language learning. The consequences of anxiety are difficult to predict, however, because anxiety can have facilitative as well as debilitating effects for different individuals.
- Willingness to communicate (WTC) is defined as the self-reported likelihood for an L2 learner to want to initiate communication in the L2 when given the choice to engage in or to avoid such action. The antecedents of L2 WTC are L2 communicative confidence (which itself is predicted by anxiety and self-perceived competence) and to a lesser but nevertheless considerable extent by L2 attitudes. Such attitudes are shaped by the frequency and quality of past L2 contact but they also help shape willingness to seek and engage in future L2 contact. Context matters a good deal in understanding the relative importance of WTC antecedents and consequences. Two important areas for pending research are how WTC may be related to actual increases in L2 contact-seeking behaviours, and how it can change across time and contexts.
- Cognitive or learning styles are ways in which individuals prefer to put their

general cognitive abilities to use. They are neither good nor bad, but simply bipolar dimensions, with potential strengths and weaknesses on both extremes. A cognitive style investigated in SLA is field independence. Individuals who are high on the field-independence pole of this construct may be better at detecting patterns in the L2 input, dealing with grammatical rules and being able to self-monitor during L2 production. Individuals who are high on the field-dependence pole (also called field sensitivity by Ehrman and Leaver, 2003) may be better at learning holistically from input via memorization as well as learning through communication with others.

- An encompassing mega-model of synoptic–ectenic learning styles has been proposed by Ehrman and Leaver (2003). Synopsis is related to the preference to rely on holistic, at-a-glance perception of information, whereas ectasis refers to the preference to rely on detail and system when processing new information.
- Learning strategies are conscious mental and behavioural procedures that people engage in with the aim to gain control over their learning process. Strategies can be cognitive (among which memory-related and compensatory strategies are important), metacognitive, social and affective. Strategy use appears to be greatly shaped by the curricular context and the specific tasks at hand.
- It has been relatively easy to describe how L2 learners use strategies. More difficult has been to establish a link between strategic behaviour and actual learning gains, to demonstrate that strategies are not culturally biased, or to explain why poor strategy users differ from good strategy users only in how they use strategies in context but not in the kinds or frequency of strategy they use.
- A recent alternative to the study of strategic behaviour is self-regulation, a theory of how humans take control over their actions, thoughts and feelings in order to achieve their complex goals. A promising innovation in this framework is that the traditional emphasis on sheer frequency of strategy use is being replaced by an emphasis on the creativity of efforts employed to control one's learning processes.

9.11 ANNOTATED SUGGESTIONS FOR FURTHER READING

As Dörnyei and Skehan (2003) and Dörnyei (2005) lament, the area of affect and L2 learning is fraught with theoretical, conceptual and methodological challenges. If you prefer to think more holistically and qualitatively about individual differences at the crossroads between cognition and affect, I recommend you read Bailey (1991) and Carson and Longhini (2002), which afford global insights into affect for L2 learning in naturalistic and classroom contexts, respectively. In addition,

although perhaps idiosyncratic and one-sided, the book by Ehrman (1996) is unsurpassed in its fascinating, holistic treatment of cognitive and temperamental individual differences at the crossroads of cognition and affect.

An alternative, more methodical reading plan is the following. You can first go to Dörnyei (2005), which offers the best current treatment of affective individual differences. As a next step, you can read the chapters by Anna Chamot, Diane Larsen-Freeman and Anita Wenden in Breen (2001), as they offer useful overviews of various related areas.

If you would like to pursue selected areas of individual differences, I recommend reading Dewaele and Furnham (1999) and Verhoeven and Vermeer (2002) on personality and L2 learning; Horwitz (1988) and MacIntyre and Gardner (1994) on anxiety; and Baker and MacIntyre (2000) and Yashima (2002) on willingness to communicate. A comprehensive theoretical discussion of WTC, although somewhat outdated by now, can be found in MacIntyre et al. (1998). When it comes to cognitive and learning styles, I recommend you read the proposal by Ehrman and Leaver (2003). To learn more about learning strategies, an interesting (because varied) collection of empirical studies is Oxford (1996). The recent study by Tseng et al. (2006) is a must-read for anyone wanting to know where L2 learning strategy research may be headed in coming years.