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Personality, Temperament, and Mood

Without any doubt, personality is the most individual characteristic of a human being and therefore it is appropriate to start the summary of individual differences with a description of the various personality factors. Having said that, the chapter on personality was not the first in my original plan of this book for two main reasons: From an educational perspective, the role and impact of personality factors are of less importance than those of some other ID variables such as aptitude and motivation and the amount of research targeting personality in L2 studies has been minimal compared to the study of most other ID variables discussed in this book. Yet, in the end the personality chapter moved forward because, as Pervin and John (2001, p. 3) put it, "Personality is the part of the field of psychology that most considers people in their entirety as individuals and as complex beings." Let us therefore start our exploration of ID factors with this most general aspect of individual differences.

The study of personality is one of the main themes in psychology and the subdiscipline specialized in this area is called—not surprisingly—*personality psychology.* This very active field has its roots in classic psychoanalytic theory at the beginning of the 20th century and its history bears the marks of all the major psychological paradigms, from the behaviorist and humanist to the social-cognitive. In addition, we also find in the literature numerous isolated personality measures of varying levels of breadth, often with no linkage to any specific personality theory. Thus, the taxonomical and theoretical complexity of the domain cannot be done justice in a single chapter such as this, as a small library could be filled with publications pertaining to the topic. Therefore, instead of attempting to provide a comprehensive summary, I first focus on conceptual and definitional issues and then describe the 'big picture' by outlining the main trends in contemporary personality psychology. Finally, I narrow the focus down to the relationship between personality and learning and especially language learning.

DEFINITIONS

What is personality? The Collins Cobuild Dictionary defines *personality* as one's "whole character and nature." This is not a bad summary; however, De Raad (2000) points out that in scientific use the term 'character,' which also involves a certain moral aspect, has gone out of fashion and has become replaced by the more neutral term 'personality,' representing the complex of all the attributes that characterize a unique individual. According to Pervin and John's (2001) standard definition, personality represents those characteristics of the person that "account for consistent patterns of feeling, thinking, and behaving" (p. 4). Such a broad view obviously allows for a wide range of approaches but the emphasis in all of these approaches has been on 'consistent patterns:' Personal experience suggests that that there is a certain constancy about the way in which an individual behaves, regardless of the actual situation. Indeed, every language contains a wide array of adjectives to describe these patterns, ranging from *aggressive* to *kind* or from *lazy* to *sociable*, and there seems to be a fair deal of agreement among people about such categorizations—this suggests that these adjectives represent underlying personality traits. Personality theories, then, attempt to identify these traits and organize them into broad personality dimensions.

The first main issue that emerges when we examine 'personality' is the recognition that different scholars use the term rather differently, to cover different breadths of human nature. As a first step, therefore, it is useful to distinguish 'temperament' and 'mood' from 'personality.' Although there are no unequivocal definitions, *temperament* is typically used to refer to individual differences that are heavily rooted in the biological substrate of behavior and that are highly heritable (Snow et al., 1996), the kind of characteristics whose traces we can already detect in early childhood. Ehrman, Leaver, and Oxford (2003, p. 314) describe them as "biological differences in life and learning." Thus, temperament and personality are seen as broadly overlapping domains, with temperament providing the primarily biological basis for the developing personality (Hogan, Harkness, & Lubinski, 2000). Leaver, Ehrman, & Shekhtman (in press) describe that the Classic Greek temperamental taxonomy proposed over 2,000 years ago by Hippocrates and Galen is still seen as one of the most valid and stable models in many countries today. The model describes four personality types: *phlegmatic* (unflappable and slow to take action), *sanguine* (easily but not strongly excited and having short-lived interests), *choleric* (impetuous and impulsive, often ambitious and perfectionist), and *melancholic* (inclined to reflection).

In contrast to the very stable and enduring construct of 'temperament,' a 'mood' refers to a highly volatile, changing state that is still not completely random. Instead, it represents "familiar surges of emotions" (Cooper, 2002, p. 262) that we experience often (although not necessarily) in response to

life events. This, however, raises a question: If moods are 'states' rather than 'traits,' why are they mentioned in this book? After all, ID variables have been conceptualized as enduring personal characteristics that are stable and systematic deviations from a normative blueprint. Mood states obviously do not fall into this category, as the whole point about distinguishing between 'states' (highly volatile, frequently changing features) from 'traits' (stable and constant properties) is to highlight the different degree of transience of the disposition in question. While this is true, mood states have a place among ID variables because individuals differ consistently in the mood states they seem to adopt, display, or submit to in given types of situations. That is, as Snow et al. (1996) explain, they are emotional states that "seem to have become more general and frequent response tendencies—that is, traits" (p. 256). According to Matthews, Davies, and Westerman (2000), there exist only three separate dimensions of mood states: *energy–fatigue*, *tension–relaxation*, and *pleasure–displeasure*. However, at present little is known about how moods become long-lasting or pervasive, or how they change as situations change, even though this would be highly relevant knowledge for educational purposes, because, as Matthews et al. summarize, there is a definite relationship between mood and performance: On the one hand, moods can interfere with task processing and can impair performance; on the other hand, moods can also energize and mobilize processing.

Because of insufficient research findings in the literature and the space limitations of this book, the rest of the chapter does not elaborate on temperament and moods any further but focuses on factors associated with personality proper.

DIFFERENT APPROACHES TO THE STUDY OF PERSONALITY

Personality is such a crucial aspect of psychology that every main branch of psychological research has attempted to contribute to the existing knowledge in this area. Thus, the scope of theorizing can be as broad as the differences among the various paradigms in psychology. This is why the field of personality is "filled with issues that divide scientists along sharply defined lines and lead to alternative, competing schools of thought" (Pervin & John, 2001, p. 25). These competing schools and paradigms have, in turn, identified a plethora of personality factors that sometimes differ only in label while referring nearly to the same thing, or—which can be more confusing—have the same label while measuring different things. In this rather chaotic 'Tower of Babel' (Funder, 2001) it has been a most welcome development in the past 15 years that a new consensus has emerged in personality psychology with regard to the main dimensions of human personality. As a result, current research in the field is dominated by only

two taxonomies focusing on personality traits, Eysenck's three-component construct (e.g., Eysenck & Eysenck, 1985) and the 'Big Five' model (e.g., Goldberg, 1992, 1993; McCrae & Costa, 2003). Furthermore, the two models overlap considerably: Eysenck's model identifies three principal personality dimensions, contrasting (1) *extraversion* with *introversion*, (2) *neuroticism* and *emotionality* with *emotional stability*, and (3) *psychoticism* and *toughmindedness* with *tender-mindedness*. The Big Five construct retains Eysenck's first two dimensions, but replaces psychoticism with three additional dimensions of *conscientiousness*, *agreeableness,* and *openness to experience*. A wide variety of empirical studies have tested these models and found that they provide a good representation of the central features of personality. At present the Big Five construct in particular is gaining momentum to the extent that it seems almost ubiquitous in the current literature (Funder, 2001). I give a detailed description of the Big Five construct in a separate section below, but let me address some more general issues first.

To start with, although the leading role of the Big Five model in research publications is undeniable, we should note that there is more to personality psychology than the Big Five trait paradigm. Psychoanalytic theories are still active areas and insightful contributions are also made by research in the behaviorist, social-cognitive, and humanistic vein. Therefore, one challenge for the field is to integrate the rather disparate approaches. A second important issue, which is related to second language studies more directly, concerns the impact of *situational factors* on the variation of personality and behavior. Because this issue is also relevant to some other ID variables (most notably motivation), let us look at it more closely.

Although personality psychology has, by intention, concentrated on stable and distinctive personality properties since its beginnings, it has become increasingly clear that by assuming absolute cross-situational consistency of most traits we can understand only part of the picture because there is evidence for cross-situational variability. As Pervin and John (2001) summarized, "To a certain extent people are the same regardless of context, and to a certain extent they also are different depending on the context" (p. 290). Thus, a broader picture of personality requires complementing static trait-centered theories describing the structure of personality with more dynamic models that describe the situated processes associated with personality in specific contexts. The fact that the latter processes exist are well-known even for non-specialists, evidenced by sayings such as *"this brought out the best/worst of me…"* and there has been a significant amount of research examining these processes, for example in the psychoanalytic paradigm. What is needed in future research is an integration of the two, seemingly conflicting, perspectives into a unifying framework. Although this is a definite challenge, it is not an impossible task because, as Mischel (1999) argues,

"dispositions and processing dynamics are two complementary facets of the same phenomena and the same unitary personality system" (p. 56).

Finally, before we examine the Big Five model in more detail, let me briefly mention a third challenge for the study of personality. Along with several other scholars, Cooper (2002) emphasizes that our job is not finished by arriving at a personality structure model that most researchers would accept (such as the Big Five model): Merely establishing the structure of personality is only the first step in any scientific study of individual differences, and the logical subsequent step is to investigate the *development* of personality. It is evident that the potential determinants of an adult's personality include both environmental factors related to the nature of the home in which the person was raised as a child, and biological factors related to hereditary factors associated with the genetic make-up. Here again, however, we find an unfortunate separation of research directions between scholars studying these aspects, highlighting the need for future integration. In conclusion, although the study of human personality has generated a great amount of knowledge, personality psychology has still a long way to go before a comprehensive account of the interrelationship of all the relevant facets and factors can be achieved. Therefore, it is likely to remain an active and developing field in psychology for the foreseeable future.

The 'Big Five' Model

Research that intends to apply personality factors as independent, background variables requires a fairly straightforward and parsimonious system that still captures a considerable proportion of the variance. The *Big Five model* offers exactly this, which explains the overwhelming current popularity of the theory. Furthermore, the five proposed dimensions of the theory make common sense even to non-specialists, which is partly due to the genesis of the construct. The original and quite ingenious idea behind the theory goes back to research conducted in the 1930s and 1940s by Allport, Odbert, and Cattell (for more details, see Cooper, 2002): These scholars assumed that if there was a certain consistency about how people behaved, then this must be reflected in *adjectives* in the language people used to characterize each other. Collecting all the possible such adjectives in a given language would, therefore, provide a comprehensive list of personality factors, and by submitting these adjectives to factor analysis we might distill a smaller number of underlying personality dimensions or traits. As De Raad (2000) summarized in the *Encyclopedia of Psychology*, it took several decades before this psycholexical approach produced the Big Five as a solid framework, and the main researchers who were responsible for the final breakthrough were Lewis Goldberg, Robert McCrae, and Paul Costa (e.g., Goldberg, 1992,

1993; McCrae & Costa, 2003). Costa and McCrae have also developed an assessment instrument, the 'NEO-PI,' that operationalizes the model in a psychometrically appropriate manner (cf. Table 2.1).

Let us examine the five main components of the Big Five construct (the initials of which enable the acronym OCEAN). As described in Table 2.1, all the five dimensions are rather broad, comprising several important facets, which are usually referred to as *primary traits*. Because the model originated in adjectives, an effective way of describing the main dimensions is listing some key adjectives they are associated with at the high and the low end.

- *Openness to experience:* High scorers are imaginative, curious, flexible, creative, moved by art, novelty seeking, original, and untraditional; low scorers are conservative, conventional, down-to-earth, unartistic, and practical.

- *Conscientiousness:* High scorers are systematic, meticulous, efficient, organized, reliable, responsible, hard-working, persevering, and self-disciplined; low scorers are unreliable, aimless, careless, disorganized, late, lazy, negligent, and weak-willed.

- *Extraversion–introversion:* High scorers are sociable, gregarious, active, assertive, passionate, and talkative; low scorers are passive, quiet, reserved, withdrawn, sober, aloof, and restrained.

- *Agreeableness:* High scorers are friendly, good-natured, likeable, kind, forgiving, trusting, cooperative, modest, and generous; low scorers are cold, cynical, rude, unpleasant, critical, antagonistic, suspicious, vengeful, irritable, and uncooperative.

- *Neuroticism–Emotional stability:* High scorers are worrying, anxious, insecure, depressed, self-conscious, moody, emotional, and unstable; low scorers are calm, relaxed, unemotional, hardy, comfortable, content, even tempered, and self-satisfied.

These adjectives have been selected because they are the most commonly cited ones in the various descriptions of the Big Five model, including Costa and McCrae's (1992) manual of the 'NEO-PI' described above (cf. Table 2.1). When we look at the list it becomes evident that some of the scales are rather 'skewed' in terms of their content, with one end of the scale being clearly more positive than the other (in the Conscientiousness and Agreeableness scales, for example, nobody would want to score low).

Table 2.1. A description of Costa and McCrae's (1992) 'NEO-PI' (Revised version)

The NEO-PI-R is a self-report paper and pencil questionnaire, covering

the five main domains of the Big Five model, each represented by six lower level facets (i.e., a total of 30). These facets are, in turn, represented by 8 items each, resulting in a total of 240 items.

Dimensions and facets	Description and sample items (in italics)
Neuroticism • Anxiety • Angry Hostility • Depression • Self-Consciousness • Impulsiveness • Vulnerability	This scale covers emotional adjustment and stability at one extreme, and maladjustment and neuroticism at the other. • *I am easily frightened.* • *I often get angry at the way people treat me.* • *Sometimes I feel completely worthless.* • *At times I had been so ashamed I just wanted to hide.* • *I have trouble resisting my cravings.* • *When I'm under a great deal stress, sometimes I feel like I'm going to pieces.*
Extraversion • Warmth • Gregariousness • Assertiveness • Activity • Excitement-Seeking • Positive Emotions	This scale reflects extraversion at one extreme and introversion at the other. • *I really like most people I meet.* • *I like to have a lot of people around me.* • *I am dominant, forceful, and assertive.* • *I usually seem to be in a hurry.* • *I like to be where the action is.* • *Sometimes I bubble with happiness.*

Openness to Experience	This scale taps an openness to new experiences, thoughts, and processes at one end, and a rejection of such at the other end.
• Fantasy • Aesthetics • Feelings • Actions • Ideas • Values	• *I have an active fantasy life.* • *I am intrigued by the patterns I find in art and nature.* • *How I feel about things is important to me.* • *I often try new and foreign foods.* • *I have a lot of intellectual curiosity.* • *I consider myself broad-minded and tolerant of other peoples' lifestyles.*
Agreeableness	This scale represents a type of 'easy-going' at one end and 'hard-headed' at the other end
• Trust • Straightforwardness • Altruism • Compliance • Modesty • Tender-Mindedness	• *I believe that most people are basically well-intentioned.* • *I would hate to be thought of as a hypocrite.* • *I try to be courteous to everyone I meet.* • *I hesitate to express my anger even when it's justified.* • *I tried to be humble.* • *We can never do too much for the poor and elderly.*
Conscientiousness	This scale reflects a complex trait sometimes called 'Will to Achieve' or 'Character,' reflecting a high desire at one end and a lower desire at the other.
• Competence • Order • Dutifulnes • Achievement Striving • Self-Discipline • Deliberation	• *I pride myself on my sound judgment.* • *I never seem to be able to get organized.* (Reversed score) • *When I make a commitment, I can always be counted on to follow through.* • *I've worked hard to accomplish my goals.* • *I am a productive person who always gets the job done.* • *I always consider the consequences before I take action.*

The crucial question about the validity of the Big Five construct is whether the five dimensions subsume all there is to say about personality. Funder's (2001) answer was 'almost certainly no.' As he argued, whereas almost any personality construct can be mapped onto the Big Five, we cannot derive every personality construct from the combinations of the Big Five. "This lack of comprehensiveness becomes a problem when researchers, seduced by convenience and seeming consensus, act as if they can obtain a complete portrait of personality by grabbing five quick ratings" (p. 201). We should note, however, that by accepting this conclusion we are closing a historical circle: First there was an amplitude of mixed, often narrowly defined traits; then some broad secondary dimensions, or 'supertraits,' were identified; and now these broad dimensions may be found lacking. No wonder that Matthews (1999) concludes that "Deciding whether to work with broader or narrower traits is a perennial problem for personality psychology" (p. 268).

Myers-Briggs Type Indicator (MBTI)

Humans have for thousands of years been characterized according to some basic types, not only by ordinary people but also by scholars. Eventually, the various, relatively simple typologies proposed in the literature were invariably rejected as too simplistic, except for one, Carl Jung's theory of three bipolar types: *extraversion–introversion*, *sensing–intuiting*, and *thinking–feeling* (for a detailed description of Jungian personality models from an L2 perspective, see Leaver et al., in press). The survival of this typology is due to the combination of a number of reasons: First, it appears to tap into some basic truths about the structure of personality; second, besides Freud, Jung was the other great 20th century psychologist who has become a 'cult figure' even among non-specialists; and last but not least, Jung's theory of psychological types forms the basis of a highly successful personality type inventory, the *'Myers-Briggs Type Indicator'* (MBTI), constructed by a daughter-and-mother team, Isabel Myers and Katharine Briggs (1976),[1] who also added a fourth dichotomy to Jung's taxonomy: *judging–perceiving*. In contemporary practice, when researchers refer to the MBTI they sometimes do not mention Jung's underlying theory, indicating that the inventory has developed an identity of its own, which is understandable in the light of the

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[1]The fascinating life story of Isabel Briggs Myers, a woman on the peripheries of academia and entirely devoted to the development of the MBTI, can be found at the Web site of the *Center for Applications of Psychological Type* (http://www.capt.org), the official promoter of the MBTI, originally founded by Myers.

fact that this is the most widely employed personality test in the world, with more than 2 million copies in 16 languages used each year by individuals and organizations.

The use of the term *indicator* in the title of the MBTI, instead of the more common 'test' or 'inventory,' is not a mere stylistic issue. It is related to the fact that the dimensions of the MBTI do not refer to traditional scales ranging from positive to negative (e.g., like those in the NEO-P). Rather, they indicate various aspects of one's psychological set-up and, depending on their combinations, every type can have positive or negative effects in a specific life domain. This value-neutral approach is very similar to what we find with learning styles (see chapt. 5), where scholars also emphasize that the various style dimensions carry no value judgment and that an individual can be successful in every style position, only in a different way. In fact, partly because of this similarity, the MBTI has often been used in L2 studies as a *learning style* measure. This is justifiable insomuch as, as Ehrman (1996) explains, the MBTI personality dimensions have cognitive style correlates; for this reason Ehrman calls these factors 'personality styles.' We should note, however, that within the domain of psychology the MBTI is considered a personality type inventory.

The four dichotomies targeted by the MBTI are as follows (for more details, see Leaver et al., in press):

- *Extraversion–Introversion,* referring to where people prefer to focus their attention and get their energy from: the *outer world* of people and activity or their *inner world* of ideas and experiences. This facet is also part of the Big Five model and has already been described there (see also chapt. 5, for further details).

- *Sensing–Intuition,* referring to how people perceive the world and gather information. 'Sensing' concerns what is real and actual as experienced through one or more of the five senses; a sensing person therefore is empirically inclined and tends to be interested in the observable physical world with all its rich details (Ehrman, 1996). In contrast, a person on the 'intuitive' end of the continuum does not rely on the process of sensing and is less interested in the factual details; instead, he/she relies on the process of intuition, preferring the abstract and imaginative to the concrete, and tends to focus on the patterns and meanings in the data.

- *Thinking–Feeling,* referring to how people prefer to arrive at conclusions and make decisions. 'Thinking' types follow rational principles while trying to reduce the impact of any subjective, emotional factors; they make decisions impersonally on the basis of logical consequences. 'Feeling' types, on the other hand, are guided by concern for others and for social values; they strive for harmony and show compassion; they

are slow to voice criticism even if it is due but are quick to show appreciation; thus, they 'think with their hearts' (Ehrman, 1996).

- *Judging–Perceiving,* referring to how people prefer to deal with the outer world and take action. Judging types favor a planned and orderly way, seeking closure and finality, whereas people on the perceiving end of the scale like flexibility and spontaneity and therefore like to keep their options open. They often resist efforts of others to impose order on their lives (Ehrman, 1996).

The MBTI requires people to make forced choices and decide on one pole of each of the four preferences. The permutation of the preferences yields sixteen possible combinations called "types", usually marked by the four initial letters of the preferences (because two components start with an 'I,' 'intuition' is marked with the letter 'N'); for example, Myers' own type preference was Introversion–Intuition–Feeling–Perceiving (INFP). This is the level where the instrument and the underlying personality type theory come into its own: The 16 MBTI types have been found to be remarkably valid because, as Ehrman (1996) explained, the combinations are more than the sum of the parts: They outline real, recognizable character types and thus the inventory has proved to be useful in a wide variety of contexts, from counseling to making personnel decisions in industry. Leaver et al. (in press) argue that none of these sixteen possible types can be considered better per se than any of the others although they add that there are likely to be environments that provide a better fit for some types than for others.

PERSONALITY AND LEARNING

Whereas no one would doubt that personality variables and types are important factors in determining our behavior in general, from an educational perspective the real question is to what extent these dispositions affect learning. The rest of the chapter addresses this issue, first from a general perspective and then narrowing down the focus to SLA.

Several studies have attempted to identify the personality correlates of academic achievement (for recent reviews and studies, see Chamorro-Premuzic & Furnham, 2003a, 2003b; Farsides & Woodfield, 2003; Lounsbury, Sundstrom, Loveland, & Gibson, 2003). Although the emerging overall picture is rather mixed, if not bleak, some patterns did seem to emerge over the years. Within the Big Five paradigm, if we look at the component structure in Table 2.1 it is clear that the two dimensions that are intuitively most closely related to learning are Openness to Experience and Conscientiousness. There is some evidence for these positive associations,

and especially Conscientiousness has produced consistent results, both in school and college contexts. Extraversion, on the other hand, has been found to have a negative relationship with academic success due to the introverts' greater ability to consolidate learning, lower distractibility, and better study habits. Similarly, Neuroticism has also displayed a negative relation with learning achievement due to the anxiety factor that it subsumes. However, even in the studies that do report a significant association between personality and learning measures, this relationship rarely explains more than about 15% of the variance in academic performance (for an exception, see Chamorro-Premuzic & Furnham, 2003b, which reports a prediction rate of almost 30%).

Furthermore, the moderate but significant results reported in the literature can be counterbalanced by many studies which failed to obtain any significant correlations between personality and learning measures. And even when meaningful personality–achievement correlations were found in one setting, they often could not be replicated in another. Because of this less-than-straightforward picture it is to some extent up to the various scholars' own beliefs how they interpret the big picture. To me it seems that Aiken's (1999) general conclusion about personality–behavior relations is fairly accurate: "Despite the large number of hypotheses concerning personality that have been generated over the years, on one test of their validity—the ability to make accurate behavioral predictions—they have not fared very well" (p. 169). So what is the reason for these at best inconclusive, and certainly counter-intuitive, results? At least four main points can be mentioned:

(1) *Interaction with situation-specific variables.* There is some evidence that personality factors interact with various variables inherent to the social context of the learning situation, which prevents generalized linear associations (such as correlations) from reaching overall significance. Skehan (1989), for example, reported on a study by Wankowski that related extra-version–introversion to age, and found that this personality trait affected achievement differently before and after puberty in the investigated sample: Below puberty extraverts had an advantage over introverts and after puberty it was the other way round. Wankowski explained the shift with the different learning environments students were exposed to, as a result of which the nature of the 'achieving personality' changed. This makes sense: it is not difficult to think of certain types of learning situations in which an outgoing and sociable person would excel and some other contexts which would favor his/her more quiet and sober counterparts. Perhaps it is for this reason that Naiman, Fröhlich, Stern, and Todesco's (1978) study on the good language learner listed both extraversion and introversion as a positive attribute. In the same vein, Matthews et al. (2000) argued that the nature of the actual tasks students engage in imposes a personality bias. For example, extraverts tend to perform well under conditions of high stimulation or arousal, which

means that some difficult tasks might provide the optimum level of arousal for them, whereas introverts in the same task might be overaroused, which impairs their performance. The issue of individual sensitivity to specific educational situations which 'afford' specific learning opportunities will be further discussed in chapter 3 when describing Peter Robinson's work on aptitude-treatment interactions.

Farsides and Woodfield (2003) also believed that the personality–learning relation is to a great extent the function of contextual features. In their view, students relatively high on Openness to Experience should thrive in educational settings that promote and rewarding critical and original thought, but not in settings that emphasize the acquisition of received wisdom. Their study also produced an unexpected result, namely the Agreeableness correlated significantly with long-term academic achievement as expressed by course grades. A closer analysis revealed that this influence was entirely mediated by situational factors: The particular course which the study focused on had a strong seminar component and it was found that Agreeable students went to seminars more often than did less Agreeable students; this more intensive participation in this course element, in turn, was rewarded by improved final course grades. The authors therefore concluded that students relatively high on Agreeableness should thrive when instruction and assessment occur within social interaction, while those lower in Agreeableness should fare better in educational settings where students are less socially interdependent (or are even negatively interdependent).

(2) *Need for less simplistic models*. Although it is clear from the above that the relationship between personality factors and learning achievement is often not direct and linear but rather indirect, mediated by various modifying variables, the typical research design reported in the literature is still correlational, testing for simple personality trait–learning outcome relationships. Aiken (1999) points out that this way we are unlikely to achieve more accurate behavioral predictions because

> For the most part, what we have in psychology, and in the psychology of personality in particular, is a collection of interrelated assertions concerning human behavior, cognitions, and feelings, but far less than a systematic structure from which unerring predictions and explanations can be made. (p. 169)

Investigating second language learning, MacIntyre and Charos's (1996) results provided support for the need for more complex theoretical constructs: The researchers found that global personality traits were implicated in the learning process primarily via their influence on language-related attitudes, anxiety, perceived competence, and motivation, rather than through

their direct impact on learning outcomes. In fact, Lalonde and Gardner (1984) also found that although personality traits did not appear to correlate with language measures, "there were many meaningful relations with measures of attitudes and motivation" (p. 230). An example of a more complex model that includes a featured personality component in the L2 field is the Willingness to Communicate (WTC) construct by MacIntyre, Clément, Dörnyei, and Noels (1998), in which personality forms an important part of the basic layer of the construct, with four further layers of variables conceptualized between personality traits and communicative behavior (see chapt. 7, for more details).

(3) *Supertraits or primary traits.* As we have seen above, the Big Five construct consists of five main dimensions, or 'supertraits,' and 30 facets, or 'primary traits.' Although the rationale for clustering the primary traits into supertraits was that the facets in one dimension were interrelated, when it comes to their relationship with academic success we find differences among the interrelated primary traits in terms of their impact on learning. This difference obviously reduces the supertraits' predictive capacity, but the alternative, that is, to examine the personality–learning relation at the primary trait level, would in effect mean giving up the Big Five construct with all its merits. Yet, in the light of the limited success in using the Big Five dimensions for explaining academic success, Chamorro-Premuzic and Furnham (2003b) proposed to examine the primary traits because people with identical superfactor scores may have very different primary trait factor scores. In their study, they did indeed find that several primary traits associated with the supertraits Neuroticism, Extraversion, and Conscientiousness were differentially correlated with academic performance. Matthews et al. (2000) also highlighted the fact that some of the strongest links between personality and performance had been obtained at the primary trait level (notably between anxiety and performance).

(4) *Methodological issues*. The inconclusive results in the literature are also partly due to various methodological limitations or inconsistencies. Different studies, for example, have used different criteria for academic success, ranging from exam marks, grade point average, and final degree results to situated course-specific evaluations such as course grades. In addition, as Farsides and Woodfield (2003) pointed out, different studies have permitted considerably different time lapses between the collection of predictor and criterion data, with a range of a few weeks to several years. A further potential source of insignificant results is that many of the studies employed convenience samples (the most typical being psychology majors at the university of the researchers) and in such pre-selected samples the variance in ID variables can be so restricted that it may in some (but not all) cases prevent correlation-based coefficients from reaching statistical significance. We

must recognize at this stage that these methodological problems are just as relevant in the field of L2 studies.

In conclusion, most specialists in the field would agree that past research has not done justice to the assumed relation between personality variables and learning outcomes: As mentioned earlier, even carefully executed studies rarely manage to explain more than about 15% of the variance in academic success. This relatively low percentage, however, may not be so surprising if we consider the following: Personality traits can in many ways be compared to the ingredients of a cooking recipe and it is a known fact that a good cook can usually prepare a delicious meal of almost any ingredients by knowing how to combine them. In a similar vein, one can argue that we should not expect many strong linear relationships (expressed, e.g., by correlations) between individual personality traits and achievement, because successful learners can combine their personality features to best effect by utilizing their specific strengths and compensating for their possible weaknesses (Brown, 2000). Thus, my personal feeling is that the conclusion often found in the literature that personality is not sufficiently related to academic achievement to be of real significance in educational settings is misleading: Ability and motivation—the two ID variables that have been found to be responsible for most of the variance in students' academic performance—simply do not explain the whole picture, since personality factors act as powerful modifying variables. I believe that future research with more elaborate theoretical constructs and research designs is likely to document personality effects better.

PERSONALITY AND LANGUAGE LEARNING AND USE

Let us now narrow down our focus to the examination of the personality correlates of language learning and use. In a review written in 1990, Adrian Furnham concluded that there had been comparatively little programmatic research on the relationship between personality and first language, and ten years later Dewaele and Furnham (2000) confirmed that this situation had not changed. Furnham explained this partly by a lack of any real interest in the personality-language interface on the part of either psychologists or linguists, which is coupled with a difference in the typical level of analysis applied in the two fields. Personality psychologists, according to Dewaele and Furnham (1999), intend to explain linguistic behavior at a global level (e.g., by looking at verbosity) without going into a detailed micro-analysis (e.g., looking at discourse markers), as is usually done by linguists. Interestingly, we find exactly the same situation in motivation research (cf. chapt. 4), with social psychologists taking a macroperspective of the general motivational orientations that characterize whole communities, and applied

linguists pursuing a more situated micro-analysis, also taking into account process-oriented and contextual factors.

In addition to such conceptual differences, Furnham (1990) drew attention to certain methodological issues that have also played a role in the paucity of relevant interdisciplinary research. The main methodological difficulty, according to Furnham, is the bewildering array of ways to measure both personality and speech, with the possible methods tapping slightly different aspects. The complexity of selecting the best measurement approach and instruments has clearly served as a deterrent both for linguists and psychologists, and so did the fact that the various combinations of the selected measures often produced mixed results, making the interpretation of the findings difficult.

The most researched personality aspect in language studies has been the extraversion–introversion dimension. This is understandable, since this trait is fundamental to a number of personality theories, from the MBTI typology to Eysenck's model and the Big Five construct. Furthermore, as Furnham (1990) pointed out, it is relatively easy to produce a reliable measure of this trait and there are also several obvious commonsense relationships between extraversion and language use. Indeed, research has found that extraverts are more talkative and use fewer pauses that introverts, while the latter tend to use more formal speech with more careful grammatical constructions. We will come back to the extraversion–language relationship when discussing the second language correlates of this personality trait.

As discussed in the introductory chapter, individual differences are seen as more salient in second language acquisition and use than in our native language, since we find considerably more variability in the learning outcomes and language use characteristics of L2 learners than their L1 counterparts. Accordingly, we can find a fair amount of research focusing on the interrelationships of personality and L2 learning/use, and the rest of this chapter is devoted to the review of this body of research. We can divide past research into four main groups: (a) early studies, (b) the study of extraversion and introversion, (c) research using the MBTI, and (d) other investigations.

Early Studies

It has been a longstanding observation in applied linguistics that some people are simply more gifted language learners than others, which naturally led researchers to test whether this giftedness was related to personality features. Accordingly, the 'good language learner' studies (e.g., Rubin 1975; Naiman et al., 1978; Stern, 1975; for a review, see MacIntyre & Noels,

1994) attempted to relate personality factors such as extraversion, willing-
ness to take risks, lack of inhibition, and self-esteem to successful language
learning. The assumption that the good language learner had a unique
personality set-up was also shared by language teachers: According to a
questionnaire survey by Lalonde, Lee, and Gardner (1987), more than 83%
of the teachers rated the good language learner to have prominent personal-
ity features and 11 traits were found to yield consensual agreement. These
were: meticulous, persevering, sociable, independent, inquisitive, involved,
organized, active, flexible, assertive, and imaginative. The first four of these
traits were also represented in the profile obtained by Naiman et al.'s (1978)
study using open-ended questions. Examining French immersion programs,
Swain and Burnaby's (1976) also found that parents considered certain
personality traits important qualities for success, but out of the four such
factors identified—happy, cheerful, talkative, and having a tendency toward
perfectionism—only the last one, perfectionist tendencies, correlated signifi-
cantly with L2 performance.

Extraversion and Introversion

Similarly to first language studies, the personality dimension that has at-
tracted the most attention in the L2 field has been extraversion–introversion,
particularly because the MBTI, which has been frequently employed in L2
studies (see below), also contains a featured extraversion–introversion facet.
Yet, the emerging picture about the role of extraversion–introversion has
been rather negative, with scholars either concluding that the relationship
between this trait and learning was insignificant or mixed. Dewaele and
Furnham (1999) have explained that the bad reputation of the extraversion
variable in the L2 field is the result of not distinguishing properly between
written and oral language criteria, as exemplified by the influential study by
Naiman et al. (1978) just mentioned, which only examined criterion meas-
ures from written language and found no significant relationships between
these and extraversion. However, Dewaele and Furnham have argued that in
the studies where extraversion scores are correlated with linguistic variables
extracted from complex verbal tasks (i.e., conversations), a clear pattern
emerges: Extraverts are found to be more fluent than introverts both in L1
and L2 and particularly in formal situations or in environments characterized
by interpersonal stress. As the authors explain, introverts can suffer from
increased pressure because the arousal level exceeds their optimal level,
which in turn inhibits the automaticity of speech production. They slide back
to controlled serial processing, rather than automatic parallel processing,
which overloads their working memory. As a consequence, their speech
slows down, they hesitate more often, they tend to make more errors, and

they are unable to produce utterances of great length (cf. also Dewaele & Furnham, 2000). Thus, it is, in effect, the lack of sufficient short-term memory capacity that causes the introverts' breakdown in fluency. A further, related insight into the superior fluency of extraverts has been provided by a recent study by Dewaele (2004), in which he found that extraverted L2 speakers tended to use colloquial words freely whereas introverts tended to avoid them.

Being disadvantaged at L2 communication would, of course, mean that introverts can benefit less from learning opportunities and speaking practice that require participation in communicative tasks and situations. For this reason, Skehan (1989) proposed that within the field of second language learning we should be able to observe a more prominent positive effect of extraversion than in other learning domains, where—as we have seen—introverts have usually been found to have an advantage. On the other hand, Skehan also pointed out that SLA involves many learning tasks and processes which go beyond learning-by-doing or talking-to-learn, and these aspects of learning would seem to relate more easily to the introvert. That is, with regard to L2 learning, both extraversion and introversion may have positive features, depending on the particular task in question. This ambiguous situation might explain why earlier studies in the literature have produced rather equivocal or insignificant findings (cf. Kiany, 1997, and the review in it).

The use of the MBTI

The MBTI is currently the most often used personality type inventory in the world and this is also true of the L2 field. In applied linguistic studies MBTI scores are usually reported as 'learning style' rather than personality measures (e.g., Bailey, Onwuegbuzie, & Daley, 2000). Although Ehrman's (1996) argument that certain personality constructs have considerable learning implications is certainly valid, and several psychological publications emphasize the link between psychological type and learning style (e.g., Lawrence, 1997), I feel that to maintain conceptual clarity it is better to refer to the MBTI factors, similarly to Ehrman, as 'personality dimensions with cognitive style correlates' rather than learning styles.

Empirical studies using the MBTI have produced—not unlike other studies looking at the relationship between personality traits and learning (see previous discussion)—mostly weak or mixed results. For example, in a study examining English majors in Indonesia, Carrell, Prince, and Astika (1996) concluded:

> As in similar studies, we did not find many direct, simple relationships between learning styles and language performance measures. Although

there were some correlations between extraversion/introversion and the vocabulary tests, and between judging/perceiving with the grammar tests, by and large there were few direct relationships between learners' type preferences and their language performance. (p. 95)

In a study of 855 Foreign Service Institute students, Ehrman and Oxford (1995; Ehrman, 1994) obtained similar results. Although they did find some statistically significant differences between various MBTI types, most of the results were rather weak. Having seen the theoretical problems concerning any direct personality–achievement link, these findings are not surprising (in fact, the opposite would be more unexpected).

An important point about personality types in the L2 field has been highlighted by Moody (1998). The researcher administered the MBTI to a large sample of college students at an American university and found that language majors as a group considerably differed from students of science, engineering, and business in their personality characteristics. The fact, the author warned, that language specialists displayed unique type preferences might foreshadow the danger that language teachers and text writers may unconsciously design programs for students of their own type, which may structure the system so that some other students will be at a disadvantage. This issue, in fact, is quite similar to the teacher–student learning style mismatch to be discussed at the end of chapter 5.

Other Studies

Several studies not mentioned before have incorporated certain personality variables in their research design (e.g., Brown, Robson, & Rosenkjar, 2001; Dewaele, 2002; Ely, 1986; Griffiths, 1991; Lalonde & Gardner, 1984; Verhoeven & Vermeer, 2002; Wakamoto, 2000), without any consistent picture emerging. For example, Lalonde and Gardner conducted an ambitious study to relate a series of personality traits to measures of attitudes, motivation, language aptitude, and second language achievement. However, the researchers admitted that "Because of the past research, it was expected that few of the personality measures would correlate highly with indices of second language achievement" (p. 225). They were correct in their assumption, as they found a general lack of relationship between personality variables and objective measures of French achievement or self-ratings of French proficiency.

Of the studies listed above, Verhoeven and Vermeer's (2002) investigation deserves special attention, as, to my knowledge, this study has been the first to use the Big Five personality construct in L2 research. The purpose of the investigation was to examine the communicative competence of young

teenage language learners in the Netherlands in relation to their personality characteristics (and also to compare these learners with a native-speaking sample). Following Bachman and Palmer's (1996) taxonomy, communicative competence was operationalized in terms of three main constituents: *organizational competence* (measured by standardized discrete-point tests of vocabulary, grammar, and reading), *strategic competence* (measured by two rating scale for teachers to judge the children's planning of communicative behavior and monitoring communication), and *pragmatic competence* (measured by student performance on eight different role-play tasks). It was found that only Openness to Experience correlated substantially with the linguistic abilities of the children across all the three competencies (with a mean correlation of 0.43). Extraversion was associated only with strategic competence, but the highly significant correlation ($r = 0.51$) between the two variables was very much in line with the theoretical considerations reported in the section on extraversion–introversion above. Conscientiousness had a moderate correlation with organizational competence ($r = 0.28$), whereas the other two facets of the Big Five model (Agreeableness and Neuroticism) were unrelated to L2 communicative competence. These findings are interesting in themselves and they also indicate that if scholars include in their research paradigm a more elaborate conception of L2 proficiency than a global L2 proficiency measure, stronger and more meaningful relationships can be identified.

CONCLUSION

Although the adjectives 'weak,' 'mixed,' 'equivocal,' and 'insignificant' have been rather frequent in this chapter when talking about empirical results concerning the relationship between personality and learning, the overall picture does not appear so bleak for a number of reasons: First, personality psychology appears to have reached a growing consensus in the conceptualization of the main dimensions of human personality, which makes the use of personality factors as independent variables in research studies easier and more reliable for non-psychologists. The application of the Big Five model in L2 studies is likely to shed new light on the relationship between personality and language learning, particularly if elaborate language measures are employed as criterion variables.

Second, past research has provided sufficient evidence that personality factors are heavily implicated in the learning process in general and in SLA in particular. I argued that one reason for not obtaining strong and consistent results has been the wide variation in the research methodologies applied in terms of learning targets, achievement measures, types of treatment, etc. across studies. A second reason is that many researchers may not have asked

the right questions when trying to test personality–achievement contingencies. Although there does not seem to be a powerful direct link between personality traits and holistic learning outcomes (as measured, for example, by proficiency test scores), if we conceptualize 'learning' in a more situated and process-oriented manner, personality variables can shed light on several subprocesses. One possible area of research in this vein is looking at the personality correlates of the choice and use of learning strategies (or self-regulation in general; cf. chapt. 6) (e.g., Ehrman & Oxford, 1995; Wakamoto, 2000).

Third and related to the above point, the available data suggests that examining the *combined effect* or *interrelationship* of personality traits and other ID variables may also yield meaningful insights. Even if personality factors do not directly determine the degree of an individual's academic success, they certainly shape the way people respond to their learning environment. It is quite likely that people of different personality types pursue differential behavioral patterns, which will have an impact on their participation in a range of learning tasks, from classroom activities to real-life practices of intercultural communication. Thus, personality traits can be seen as potent modifying variables and in this sense they are similar to learning styles in their function.

In summary, I believe that Dewaele and Furnham (1999) were right when they concluded that "the success of recent studies in exploring the relationship between personality and oral language should help the important and hitherto neglected interface between applied linguistics and personality psychology" (p. 537), particularly, because the emerging results are likely to have important theoretical and applied implications for both groups of scholars. Therefore, I sincerely hope that future research designs in L2 studies will increasingly include personality traits as independent variables.